PROMOTING HEALTH, WELL-BEING, AND DEVELOPMENTAL OUTCOMES IN

YOUNG PEOPLE EXPERIENCING HOMELESSNESS: AN INVESTIGATION INTO

THE IMPACT OF MY STRENGTHS TRAINING FOR LIFE™

By

BENJAMIN JOHN PARRY

A thesis submitted to the University of Birmingham

for the degree of

DOCTOR OF PHILOSOPHY

School of Sport, Exercise, and Rehabilitation Sciences

Colleges of Life and Environmental Sciences

University of Birmingham

March 2020

Abstract

Global and national statistics suggest young people aged between 16-25 are overrepresented in the homeless population. Late adolescence and emerging adulthood are critical developmental periods for shaping lifelong health, well-being and social inclusion trajectories. Strengths-based approaches to tackling the health and developmental inequalities associated with youth homelessness are more likely to promote positive short- and longer-term change. The present thesis investigates a bespoke strengths-based intervention for young people experiencing homelessness, My Strengths Training for Life™ (MST4Life™). Grounded in theoretical and evidence-based approaches, MST4Life™ is an intervention co-designed between a team of sport psychologists and a youth housing service to improve outcomes in young people aged 16-25. Following a systematic review of the literature (Study 1), two qualitative studies of MST4Life™ were conducted. A realist evaluation was applied to investigate how and why the programme was perceived to be effective from key stakeholders' perspectives (Study 2). Additionally, an in-depth study of the outdoor adventure education (OAE) component was carried out (Study 3). Overall, MST4Life™ was perceived to support the development of psychosocial skills, improve perceptions of health and well-being, and foster intrinsically driven motivations. Central to promoting these outcomes were a needs-supportive atmosphere, experiential learning activities, and adaptive developmental regulations. A multi-theory approach to evaluating MST4Life™ elucidated novel implications that can inform applied practice and identify future research avenues to advance strengths-based approaches. Conclusions drawn from the present thesis can inform effective intervention approaches to improving health, well-being and developmental outcomes in socially disadvantaged young people.

Acknowledgements

Contents Listing

- List of publications

- Table of contents

- List of figures

- List of tables

- List of abbreviations

Publications and conference presentations produced during this PhD

Publications that are part of this PhD

Parry, B. J., Quinton, M. L., Holland, M. J. G., Thompson, J. L., & Cumming, J. (2020). Improving Outcomes in Young People Experiencing Homelessness with My Strengths Training for Life™ (MST4Life™). *A Realist Evaluation. Children and Youth Services Review*. https://doi.org/10.1016/j.childyouth.2020.105793

In press

Parry, B. J., Holland, M. J. G., Thompson, J. L., & Cumming, J. (2021). Promoting Personal Growth in Young People Experiencing Homelessness through an outdoors-based program. *Accepted for publication in, Journal of Youth Development*. School of Sport, Exercise and Rehabilitation Sciences, University of Birmingham, UK.

Under Review

Parry, B. J., Thompson, J. L., Holland, M. J. G., Cooley, S. J., & Cumming, J. (2021). Health Outcomes of Physical Activity-based Positive Youth Development for Disadvantaged Young People: A Systematic Review. *Under review, International Review of Sport and Exercise Psychology.* School of Sport, Exercise and Rehabilitation Sciences, University of Birmingham, UK.

Publications that are not part of this PhD

Quinton, M. L., Clarke, F. J., **Parry, B. J.,** & Cumming, J. An evaluation of My Strengths Training for Life™ for improving resilience and well-being of young people experiencing homelessness. (2021) *Journal of Community Psychology,* 1–19. https://doi.org/10.1002/jcop.22517

Cumming, J., Holland, M. J. G., Clarke, F., **Parry, B. J.,** Quinton, M. L., & Cooley, S. J., (2021) *Improving Outcomes in Homeless Young People: A Feasibility Study of the My Strengths Training for Life™ (MST4Life™) Programme* [manuscript in preparation]. School of Sport, Exercise and Rehabilitation Sciences, University of Birmingham

Cooley, S. J., Quinton, M. L., Holland, M. J. G., **Parry, B. J.,** & Cumming, J. (2019). The experiences of homeless youth when using strengths profiling to identify their character strengths. *Frontiers in Psychology.* https://doi.org/10.3389/fpsyg.2019.02036

Published Non-Refereed Articles

Parry, B. J., Quinton, M. L., & Cumming, J. (2020). Mental Skills Training toolkit: A resource for strengths-based development. https://8fe30357-2dc5-4c2c-b70d-5b8e78fc2795.filesusr.com/ugd/f51c2c_b5bdbbbff839419b8cd9e1a4c69d5a6d.pdf

Clarke, F., **Parry, B. J.,** Quinton, M. L., & Cumming, J. (2020). Mental Skills Training commissioning and evaluating toolkit. https://8fe30357-2dc5-4c2c-b70d-5b8e78fc2795.filesusr.com/ugd/f51c2c_68676ce778c340a1a5b8b930bf2d8733.pdf

Quinton, M. L., **Parry, B. J.,** & Cumming, J. (2020). Mental Skills Training toolkit: Ensuring psychologically informed delivery. https://8fe30357-2dc5-4c2c-b70d-5b8e78fc2795.filesusr.com/ugd/f51c2c_c234bc9f3589495491ae0a4ddccee3b1.pdf

Cooley, S. J., Quinton, M. L., Holland, M. J. G., **Parry, B. J.,** & Cumming, J. (2016). Mental skills training for life at St Basils: Year 2 report (Research report to St Basils youth homeless charity). Available on request.

Cooley, S. J., Holland, M. J. G., Quinton, M. L., **Parry, B. J.,** & Cumming, J. (2015). Mental skills training for life at St Basils: Year 1 report (Research report to St Basils youth homeless charity). Available on request.

Conference presentations

International

Parry, B. J., Thompson, J. L., Holland, M. J. G., & Cumming, J. (2019, July). Sport psychology in the community: A realist evaluation of the My Strengths Training for Life™ programme. Poster presentation at the North American Society for Psychology of Sport and Physical Activity (NASPSPA) annual conference, Baltimore, MD, USA.

Parry, B. J., Thompson, J. L., Holland, M. J. G., Cooley, S. J., Quinton, M. L., & Cumming, J. (2019, July). Health Outcomes of Physical Activity-based Positive Youth Development for Disadvantaged Young People: A Systematic Review. Poster presentation at the NASPSPA annual conference, Baltimore, MD, USA.

National

Parry, B. J. & Quinton, M. L., (2020, June). Meeting young people's psychological needs through COVID-19 and beyond. Webinar as part of Homeless Link's response to COVID-19.

Parry, B. J. & Quinton, M. L., (2019, December). Strengths-based approaches and building resilience. Presented at the Homeless Link Young and Homeless 2019 conference, London, UK.

Parry, B. J., Quinton, M. L., & Cumming, J. (2019, November). "Toolkit launch conference – Mental Skills Training toolkit: A strengths-based approach." Conference lead, oral

presentation, and workshops delivered at, University of Birmingham, West Midlands, UK.

Parry, B. J., (2018, February). "Positionality in Community-based research." Oral presentation at, University of Bath annual Qualitative Research Symposium, Bath, UK.

Parry, B. J., Quinton, M. L., Cooley, S. J., Holland, M. J. G., Thompson, J. L., & Cumming, J. (2017, December). "To what extent do physical activity-based positive youth development (PYD) interventions address physical and mental health outcomes in disadvantaged young people: A systematic review." Poster presentation at, British Psychological Society (BPS), Division of Sport and Exercise Psychology (DSEP) Annual Conference, Glasgow, UK.

Parry, B. J., Cumming, J., Cooley, S. J., Quinton, M. L., Holland, M. J., Thompson, J. L. & Saunders, K. (2017, November). "Health Outcomes of the Mental Skills Training for Life™ Programme – a Qualitative Perspective" Oral presentation at, BASES-FEPSAC Conference, University of Nottingham, East Midlands, UK.

Cooley, S. J. (symposium convener), Holland, M. J. G., Quinton, M. L., Parry, B. J., & Cumming, J., (2016, December). Adapting mental skills training from sport to homeless youth: What works and why? Symposium conducted at, BPS, DSEP 2016 annual conference, Cardiff, UK.

i. Cumming, J., Cooley, S. J., Quinton, M. L., Parry, B. J., & Holland, M. J. G. The Delivery Model of the Mental Skills Training for Life Programme

ii. Holland, M. J. G Cumming, J., Cooley, S. J., Quinton, M. L., Parry, B. J., & Cumming, J. The feasibility of a strength-based mental skills training programme for homeless youth

iii.   Cooley, S. J., Holland, M. J. G., Quinton, M. L., **Parry, B. J.,** & Cumming, J., Mental skills training in homeless youth: Approaches to developing self-regulation

iv.   Quinton, M. L., Cooley, S. J., Holland, M. J. G., **Parry, B. J.,** & Cumming, J., Approaches to giving and receiving social support: The mental skill of support seeking

v.   **Parry, B. J.,** Cooley, S. J., Quinton, M. L., Holland, M. J. G., Thompson, J. L., & Cumming, J., Linking Processes to Outcomes: Understanding the 'how' and 'why' of delivering Mental Skills Training to Homeless Young People.

Regional

Parry, B. J. (2018, December) MST4Life™: When sport psychology meets community-research. Oral presentation at, Postgraduate research day for School of Sport, Exercise and Rehabilitation Sciences, University of Birmingham.

Parry, B. J. Cooley, S. J., Quinton, M. L., Holland, M. J. G., Saunders, K., & Cumming, J. (2017, November) "It was a life changing experience for me" – Health outcomes of the Mental Skills Training for Life™ programme, a qualitative perspective. Oral presentation at, postgraduate conference: 'Seeds of Knowledge', University of Worcester.

Parry, B. J., Cooley, S. J., Quinton, M. L., Holland, M. J. G., & Cumming, J. (2016, November). Mental Skills Training for Life – Taking a strengths-based approach to improving mental health in homeless young people. Poster presented at, Making Future in mind a Reality for Children and Young People in the West Midlands NHS Conference, Walsall, UK.

Awards and achievements

Award for best poster on Day 2 at, BPS, DSEP 2017 annual conference

Award for best oral presentation in Physical Activity and Health at, postgraduate conference:

'Seeds of Knowledge,' 2017. Worcester University, UK

Table of Contents

List of figures

Chapter 6   Discussion

List of tables

List of Abbreviations

Terminology Used in Social Disadvantage Discourse

NEET – Not in education, employment or training

ACEs – Adverse Childhood Experiences

Theories and Conceptual Approaches

PYD – Positive youth development

MST – Mental skills training

OAE – Outdoor adventure education

RDST – Relational developmental systems theory

SDT – Self-determination theory

CBPR – Community-based participatory research

Programmes

MST4Life™ - My Strengths Training for Life™

Other

MVPA – Moderate-to-vigorous intensity physical activity

Chapter 1: General Introduction

Youth homelessness

Youth homelessness is an issue of global significance, spanning continents, countries, and communities (Embleton et al., 2016; Medlow et al., 2014). In this group, homelessness can be defined as, "the situation and experience of young people between the ages of 13 and 24 who are living independently of parents and/or caregivers but do not have the means or ability to acquire a stable, safe or consistent residence" (Canadian Observatory on Homelessness, 2019, p. 1). For a young person, homelessness can include many different living conditions, including being street homeless, couch surfing (a phrase used to reflect young people moving from temporary living conditions without a secure place to be), staying in temporary shelters, or residing in supported accommodation (e.g., youth housing services; Homeless Link, 2018 Morton et al., 2018). The term 'experiencing homeless' is considered to be more helpful than 'homeless young people' because it reflects that young people are in a transient state of homelessness and not defined by their situation (Associated Press, 2020). Therefore, the term young people experiencing homelessness will be applied in the present thesis.

It is also important to acknowledge the age range of *young people*. Recent research considers young people to include anyone between the ages of 10-24, with this age span capturing three core developmental phases: early adolescence (10-14), late adolescence (15-19), and emerging adulthood (20-24; Gore et al., 2011; Sawyer et al., 2012). Throughout this period, each developmental stage presents physical, social, emotional and neurocognitive developments. For example, in early adolescence, young people typically experience rapid rates of physical and sexual maturation, including the growth of body hair and the start of menstruation (Sawyer et al., 2012). In late adolescence, young people are still experiencing

physical and sexual maturation (depending on individual differences) and begin a process of complex socio-emotional development, starting to build a sense of self-identity, navigating hormonal changes, and placing importance on peer acceptance (Sawyer et al., 2012). Finally, in emerging adulthood, young people may start to form more intense romantic relationships, continue a process of exploring self-identity and start their transition away from the family home (Sawyer et al., 2012). A young person's transition into adulthood can be expected to be challenging, but strong support networks and family connections have been identified as protective factors against depressive symptoms and promote feelings of well-being (Lane & Fink, 2015; Pettit et al., 2011; Spencer & Patrick, 2009). With family breakdown being the leading cause of youth homelessness and feelings of loneliness being a prevalent support need in this population, late adolescence and emerging adulthood are increasingly difficult periods to navigate (Embleton et al., 2016; Homeless Link, 2018).

Recent reports in the United Kingdom (UK) and the United States of America (USA) indicate higher rates of homelessness amongst young people in late adolescence and emerging adulthood, with the majority between 18 and 24 years (Homeless Link, 2018; Morton et al., 2018). A study of UK housing services found that over a third of young people (16-25 years) presented with the following support needs: not in education, employment or training (NEET; 44%), lacking independent living skills (41%), and experiencing mental health problems (35%; Homeless Link, 2018). Complex health issues in young people experiencing homelessness within the UK and internationally include a range of mental health diagnoses (e.g., depression, post-traumatic stress disorder and substance abuse disorders), high rates of substance use, underreported physical health complications and increased exposure to physical violence (Hodgson et al., 2013; Medlow et al., 2014; Santa Maria et al., 2018). Notwithstanding these physical and mental health disparities, homeless young people are also likely to experience feelings of loneliness and social isolation (Roffey,

2011; Homeless Link, 2018), as well as feelings of social stigma and shame (Farrugia, 2011). Many young people experiencing homelessness will present to housing services with complex support needs; however, these support needs are often mental and physical manifestations of underlying issues from childhood.

Adverse Childhood Experiences (ACEs; Felitti et al., 1998) is a term used to reflect potentially traumatic events that occur before the age of 17. Exposure to ACEs can negatively affect brain development and increase the risk of experiencing somatic and psychosocial disorders across the lifespan (Chapman et al., 2004; Herzog & Schmahl, 2018). Amongst people with experiences of homelessness, ACEs have been linked to drug and alcohol use and higher rates of social exclusion in adulthood (Tam et al., 2003). Moreover, in a sample of over 34,000 young adults, ACEs were directly linked to an increased risk of homelessness and an increased risk of Axis 1 (e.g., social anxiety disorder) and Axis 2 (e.g., personality disorder) mental health conditions (Roos et al., 2013). In other words, ACEs are not only predictors of homelessness but are also likely to play a part in exacerbating the mental health inequalities associated with homelessness.

In sum, homelessness among young people seems to be most prevalent in late adolescence and emerging adulthood – a population that is referred to as young people experiencing homelessness in the present thesis (i.e., between the ages of 16-25 years). Young people experiencing homelessness are likely to have lived through (or are still living through) multiple adverse childhood experiences and are at risk of a range of health and developmental inequalities as a result (Homeless Link, 2018; Medlow et al., 2014; Roos et al., 2013). If left unresolved, these inequalities will persist throughout adulthood and result in a lifespan of health complications and reliance on public health services (Homeless Link, 2018). Consequently, there are societal and economic risks of creating a generation who require additional resources for the duration of their lives and are socially excluded from

contributing to the economy and wider society (Prince's Trust, 2010; Ministry of Housing, Communities and Local Government, 2018). Moreover, there is a moral issue of allowing homelessness to manifest when the problem can be resolved if acted upon efficiently and effectively (Morton et al., 2020). Housing services in the UK have already identified the need for more effective intervention strategies to offer more appropriate support for young people with complex support needs (Homeless Link, 2018). Providing research that can offer a viable solution to the shortcoming in the UK's current response to youth homelessness would have societal implications and contribute to evidence-based changes in policy and practice.

As part of a larger body of work, this thesis contributes to the evaluation of a programme designed to improve outcomes for young people experiencing homelessness. The programme, entitled My Strengths Training for Life™ (MST4Life™), was already in existence prior to this PhD and the present thesis contributes to its ongoing evaluation. Before explaining the specific gaps fulfilled by this thesis, details about the broader MST4Life™ research project, underpinning theories and approach, and the programme itself are first given. The rationale for the present thesis, including how it makes a novel and significant contribution to the broader MST4Life™ research project, is then outlined.

The MST4Life™ Research Project

The MST4Life™ research project is a long-term academic and community partnership (i.e., > 8 years; see Cumming et al., 2021a) between the University of Birmingham and St Basils, a youth housing service based in the West Midlands supporting young people aged between 16-24. In 2013, St Basils contacted a team of sport psychologists from the university to discuss whether a mental skills training (MST[1]) programme designed to improve life skills of young footballers could improve outcomes for young people

---

[1] A detailed explanation of MST can be found on pages 20-21

receiving support from their service. A St Basils member of staff had observed MST being delivered in a football academy setting and identified how a similar approach could be implemented with young people in the housing service who were in need of structured guidance to develop life skills. Having established a psychologically informed environments (PIE[2]) framework for service delivery and staff support (Cumming et al., 2017), St Basils saw the potential for an MST-based programme to extend psychologically-informed support directly to young people.

The premise was that a sport psychology-based programme could promote a non-stigmatising approach to personal development (i.e., the strengths-based style of sport psychology could reduce feelings of stigma or being judged) and promote engagement in some of the hardest to reach young people in the service. St Basils staff identified the need for the programme as a new approach to working with NEET service users, who were typically not engaged with structured programmes, at high risk of longer-term social disengagement, and less likely to successfully transition into independent living (Public Health England, 2014; Mawn et al., 2017). Given the proposal's novel nature, the research project was shaped by St Basils staff's expertise and experience to understand how an MST programme could be most effectively implemented in the housing service and work with service users experiencing complex support needs (Cooley et al., 2014a). Decisions regarding research aims, implementation and evaluation were reached based on stakeholder consultations with service users, frontline and management staff, and the organisation's CEO (Cooley et al., 2014a). In doing so, the MST4Life™ research project was informed by principles of community-based participatory research (CBPR; Israel, 1998; Collins et al., 2018).

---

[2] A detailed description of PIE in St Basils can be found on page 12.

CBPR is an approach that advocates equity between researchers and the community across all levels of a research project, aiming to mobilise the strengths of communities to bring about meaningful social change (Israel, 1998; Wallerstein & Duran, 2006). To guide this process, Israel (1998) outlines nine core principles that inform good CBPR in large-scale research projects. As outlined in Table 1.1, Israel's (1998) CBPR principles have been applied to underpin the broader MST4Life™ research project (Quinton et al., 2021). CBPR is a fitting research approach for MST4Life™, owing to its purpose of evaluating complex, community-based interventions centred on community participation and tackling health disparities (Israel, 2010; Wallerstein & Duran, 2010). CBPR has also been advocated in psychological interventions with marginalised groups, "CBPR is a relevant, important, and promising research framework that may guide the implementation of more effective, culturally appropriate, socially just, and sustainable community-based psychology research". (Collins et al., 2018, p. 885). In psychological research with adults experiencing homelessness, a CBPR approach is an effective framework for building trust between the community and researchers and fostering feelings of empowerment by giving participants an active voice in the research process (Collins et al., 2016). CBPR has also been recommended to sport psychologists conducting applied research in community settings, as exemplified in MST4Life™ (Schinke & Blodgett, 2016).

Table 1.1

Examples of how the Nine Principles of CBPR (Israel et al., 1998) Mapped onto MST4Life™ (from Quinton et al., 2021)

Nine principles of CBPR (Israel et al., 1998)	Definition (Blumenthal et al., 2013)	Evidence of this principle in MST4Life™ research
1. Recognizes community as	The community may share a geographic entity or other commonality among members	- Housing service across the West Midlands, UK; different levels of stakeholders, all with the shared goal of

a unit of identity		supporting young people experiencing homelessness into independence.
2. Builds on strengths and resources within the community	Recognizing the communities' strengths/assets and resources as well as their needs and problems.	- Series of meetings at start of research to understand the context and need for intervention, as well as existing strengths and community assets to access (e.g., psychologically informed organization approach; clinical psychologist support; stakeholder contacts in local authority, other charities).
3. Facilitates collaborative partnerships in all phases of the research	Communities should share control over all phases of the research process	- Different stakeholders (Executive Board, senior management team, frontline staff, managers, young people) shared control over decision-making in MST4Life™ design (intervention length, inclusion criteria, recruitment materials), delivery (time, location, activities) and evaluation (use of non-randomized approach, outcomes based on suggestions from housing service).
4. Integrates knowledge and action for the mutual benefit of all partners	Results should be integrated into efforts to bring about positive affectand change in the community	- Results were presented to housing service at regular intervals and reports produced for housing service to share with other community stakeholders about research impact.
5. Promotes a co-learning and empowering process that attends to social inequalities	Recognizing inequalities and differences between researchers and community stakeholders; opportunities to learn from each other, build on strengths and weaknesses, and move towards overcoming inequalities	- Knowledge exchange meetings and a residential trip took place to share expertise, co-create resources and identify further needs for support.
6. Involves a cyclical and iterative process	The partnership is an ongoing process which undergoes iterative cycles throughout different stages of the research project, importantly including mechanisms for sustainability	- Problem was identified (mental skills needed to help young people move into independence) and methodology developed with different levels of stakeholders, allowing a pilot programme to take place. - Review of the pilot programme resulted in first cycle of feedback to improve on next round of programmes. - Ongoing communications took place with staff and young people prior to, during, and after each programme delivered. - Results were disseminated regularly by researchers and the housing service and at co-hosted symposiums with broader community stakeholders. - Sustainability mechanisms were embedded in project milestones from the start, including cycles of training housing

		service staff to upskill, co-deliver and eventually fully deliver MST4Life™ (Cumming et al., 2021a).
7. Addresses health from both positive and ecological perspectives	Considering health in different ways: physical, mental, social and economic wellbeing.	- Evaluations included mixed methods to assess physical, mental and social dimensions of health.
		- An independent economic evaluation was conducted to identify the impact of MST4Life™ for moving young people from NEET to EET and into independent living (Jabbour & Siu, 2019).
8. Disseminates findings and knowledge gained to all partners	Sharing results research with community partners in lay language and where appropriate, consulting with stakeholders prior to submission of manuscripts for publication, acknowledging contributions, and developing co-authored publications	- Findings were shared with housing service but also broader stakeholder network (e.g., local authorities, policy makers) at knowledge exchange events.
		- Findings were also shared at public engagement events and conferences through the university.
		- Young people were included in dissemination events and shared their MST4Life™ experiences at symposiums and conferences.
		- Finally, 6 years of knowledge from MST4Life™ was adapted into a toolkit for the sector, co-produced with young people and staff (Clarke et al., 2021).
9. Involves a long-term commitment by all partners	A true partnership does not dissolve because a 3 year grant has come to an end. The partnership continues even in the absence of funding; the partners may search for new funding while continuing unfounded activities	- Additional pots of funding were secured along the way as both partners were always striving to continue the relationship to make a positive impact on young people experiencing homelessness.
		- At the time of writing, the researchers and housing service are working together on writing new bids and funding grants to secure further funding.

CBPR was exemplified in the early stages of developing MST4Life™ as the research team, and key stakeholders from the community worked collaboratively to complete a thorough needs analysis for the target population (i.e., NEET young people experiencing homelessness). The needs analysis included a literature review and multiple focus groups conducted with service users, frontline staff and management staff (February – March 2014). Findings from the needs analysis underscored the importance of the programme being participant-centred, not overly dependent on presentations and paperwork, and instead more

hands-on and conversational, with the programme being long enough and consistent enough to sustain engagement but also allow sufficient time between sessions to not overwhelm participants. As a result, an eight-week (one session/ week, ~two hours/ session) pilot psychoeducational programme (MST-informed) was developed and delivered within the housing service's accommodation sites and local community settings. It was also decided that the programme would benefit from a transfer setting (i.e., a context to facilitate the skill development and use in a new environment) to aid the development of mental skills and provide novel experiences for service users.

In a study of undergraduate students taking part in an outdoors course, the key contextual conditions that optimised the development and transfer of skills in the outdoors were: removal from everyday lives, enjoyment, social support, range of progressive challenges, learning through doing, and guided reflection (Cooley et al., 2015a). Indeed, these similar features have also been highlighted in transfer contexts for life skill development in young people, as well as identifying the benefits of opportunities to use skills and supporting psychological needs (Pierce et al., 2017; Scarf et al., 2018). Cooley and colleagues (2015a) provided evidence to suggest that an outdoor course delivered at the university's outdoor pursuit centre provided interpersonal skill development and improved attitudes and knowledge for the transfer of skills to education and workplace settings in young people of similar age to those included in MST4Life™ (i.e., late teens and early twenties). When compiled with other evidence of the effectiveness of outdoor courses in groups to promote life skills and well-being outcomes in groups with complex support needs (e.g., Bowers et al., 2019; Bowen & Neil, 2016; Harper et al., 2019; Mygind et al., 2019), researchers and community stakeholders decided to utilise the university's outdoor centre in MST4Life™ to deliver a three-day/ two-night outdoors residential component (following on from the eight life skills sessions; Cumming et al., 2015).

Findings from the pilot study of MST4Life™ highlighted the programme's positive influence on young people's well-being and skill development and good buy-in from key stakeholders (e.g., frontline housing staff; Cooley et al., 2014a; Cumming et al., 2021b). To further understand the views of those involved in the pilot programme, stakeholder consultations (e.g., tripartite knowledge exchange, see Cumming et al., 2015) were conducted and included the team of sport psychologists from the University of Birmingham, St Basils staff and service users, and outdoor instructors from the outdoor pursuit centre. Informed by feedback obtained in the stakeholder consultations, the psychoeducational component of the programme was extended from eight to ten sessions, and the residential component was extended by one day and one night. Staff and service users felt extending the psychoeducational programme could facilitate greater learning and development, while staff, service users and the outdoor instructors felt a longer residential phase would help the experience feel less intense and give participants more time to acclimatise to the outdoor environment. It was also agreed that while participants benefited from the unique expertise of the two post-graduate researchers delivering the programme, support from St Basils staff was required throughout both stages of the programme to aid with group management, provide additional pastoral support to service users with complex needs, and offer important knowledge and understanding of the social dynamics in accommodation sites to ensure the programme was culturally sensitive.

With the aforementioned changes in place and positive results and feedback from the pilot programme, St Basils obtained further funding to roll out MST4Life™ to 300-450 young people engaging with their service over an initial three years (2014-2017). The first iteration of the programme was delivered in the same accommodation sites that received the pilot programme, with the same St Basils staff supporting programme delivery; however, a different group of service users received the programme (October – December 2014). At the

time of starting this PhD, MST4Life™ was in the first year of its initial three-year funding period. Findings from the first-year report highlighted how the programme effectively fostered psychological skills and qualities, such as goal-setting, self-worth, resilience, and well-being, from a quantitative and qualitative perspective (Cooley et al., 2015b). In more recent peer-reviewed empirical studies, these findings have been replicated in quantitative data (Cooley et al., 2019; Quinton et al., 2021).

The purpose of the present thesis was to contribute to ongoing evaluations of the MST4Life™ intervention by building upon the existing evidence and contributing new insights to gaps in the knowledge base. In doing so, the present thesis aligned with broader CBPR principles of the MST4Life™ project exemplified in participatory approaches to data collection, consultations with stakeholders concerning findings, and the broader goal of attempting to provide knowledge that can lead to meaningful change for community partners. However, this thesis did not rigorously adhere to CBPR principles, reflected in limited collaboration with community partners in all facets of the research process (e.g., data analysis and reporting writing; Israel, 2005). Gaps in the MST4Life™ knowledge base included the need for additional qualitative evaluations, a wider range of stakeholders to be included in the research, and a better understanding of the mechanisms and outcomes of the programme. Before detailing how this PhD set about contributing to these gaps, three key components of MST4Life™ are outlined: (1) the research context, (2) underpinning approaches and theories, and (3) a typical programme.

The Research Context

When evaluating MST4Life™, the research took place in two primary contexts, St Basils and an outdoor pursuit centre owned by the University of Birmingham. Each context is outlined in more detail below.

St Basils

St Basils are the largest youth housing service in the West Midlands (UK), with accommodation sites in urban environments close to Birmingham city centre (e.g., Highgate, Small Heath, Erdington) and rural settings within and outside of Birmingham (e.g., Moseley, Redditch, Bromsgrove, Coventry). Across the 39 accommodation sites (referred to by the service as 'projects'), the service supports approximately 4000 young people each year, 1200 of which receive housing. The types of support offered at each project vary, from 24/7 staffed projects to semi-independent projects (e.g., staff support during the day) and one fully independent project. St Basils also offers floating support, a service provided to young people living independently but who still require some guidance (e.g., personal or emotional support). Young people who require housing are considered on a case-by-case basis, with assessments for support needs and potential risk being completed. For instance, St Basils provide accommodation sites that offer bespoke support for young mothers, as well as housing and employment schemes with the National Health Service (NHS). In extreme circumstances, the organisation can offer emergency accommodation and supported lodgings to ensure young people do not spend a night on the streets (for more information on the services St Basils offers, see www.stbasils.org/services).

As an organisation, St Basils are considered a leading service in the youth homelessness sector for providing positive pathways out of homelessness and quality care for its residents (Homeless Link, 2018). St Basils adopt a philosophy of offering more than just a bed and provides a service that supports the holistic development of its residents to end the cycle of youth homelessness, reflected in the organisation's mission statement, "St Basils works with young people to enable them to find and keep a home, grow their confidence, develop their skills, increase opportunities and prevent homelessness" (www.stbasils.org).

St Basils' mission statement is reflected in a progressive approach to supporting young people in a psychologically informed way, exemplified in the partnership with the University of Birmingham and the development of MST4Life™. Prior to MST4Life™, St Basils were a PIE organisation, employing a clinical psychologist to train staff in understanding the effects of unresolved and ongoing trauma and applying psychological techniques to foster supportive and nurturing relationships with young people (Cumming et al., 2017). The five core features of St Basils as a psychologically informed service are:

1. **Having a bespoke psychological framework**: St Basils' PIE model is trauma-informed and draws on aspects of three main psychological approaches: (1) cognitive behaviour therapy (CBT), (2) dialectical behaviour therapy (DBT), and cognitive analytic therapy (CAT)' (Cumming et al., 2017, p. 2).

2. **Physical environment and social spaces:** This value centres on young people feeling cared for, empowered, and their views are validated. The organisation outlines that 'collaboration is also crucial in developing this a PIE environment, including allowing young people to contribute to the organisation's decision-making processes (Cumming et al., 2017, p. 3).

3. **Staff training and support:** all frontline staff in the organisation receive a three-day foundation training course delivered by the in-house clinical psychologist about their role in a PIE service and how to implement psychological tools to have emotionally safe conversations. In addition to training, the in-house psychologist facilitates reflective practice groups with staff to discuss the practicalities of implementing PIE tools and support staff well-being. In more severe incidents, the psychologist can be consulted to offer bespoke support to young people and help staff process difficult situations.

4. **Managing relationships:** as a PIE organisation, St Basils prioritise the relationships between staff and service users, seeing positive, healthy relationships 'as the most valuable tool for facilitating positive behaviour change' (Cumming et al., 2017, p. 5).

5. **Evaluation:** 'as part of ongoing reflection and evidencing of impact, St Basils engages in systematic evaluation of their PIE model' (Cumming et al., 2017, p. 5). Evaluating the PIE model of care means capturing targeted outcomes for young people (e.g., reduction in evictions or unplanned departures), staff (confidence in managing the complex needs of service users), and the organisation (e.g., better outcomes for service users and well-being of staff).

Being a PIE service, St Basils encourages a psychologically informed approach to working with young people and fellow staff members across the entire service. The notion of delivering a sport psychology-informed intervention (i.e., MST4Life™) was considered to align with a PIE philosophy and extend the PIE framework into a structured personal development programme for service users. From an applied perspective, St Basils frontline staff supported the implementation of a PIE approach in MST4Life™ by supporting facilitators to understand and provide appropriate support for service users with complex support needs and previous experiences of trauma.

The two main staff groups involved when delivering MST4Life™ were learning, support and work staff (LSW) and support workers[3]. LSWs were staff employed by St Basils for the purpose of providing service users with more specific guidance around education, employment or training opportunities, securing independent living arrangements, and building relevant skills (e.g., employability skills, life skills). In essence, LSW staff played an integral role in supporting young people to successfully acquire the required life skills and

---

[3] At the time of conducting the research these were the job titles of staff (2015-2016). However, more recently these roles have been adapted and, at the time of writing this thesis, the roles of learning support and work staff and support worker have been renamed as employability coach and progression coach, respectively.

qualifications to transition out of homelessness. At the time of conducting the research, there were six LSW staff, each of whom worked with a cluster of projects. When the MST4Life™ project started in 2014, LSW staff were considered key stakeholders in informing the programme's content and delivery style (Cooley et al., 2014a). Two LSW staff were central to the planning and implementation of the pilot programme, being involved in the initial focus groups for the needs analysis, the stakeholder consultations after the pilot programme, and the tri-partite knowledge exchange trip (Cumming et al., 2015). To promote the sustainability prospects of MST4Life™, all LSW workers received training on how to deliver the programme (included as part of the funding for the initial three-year rollout of the project). As part of the training, LSW staff also co-delivered MST4Life™, meaning at least one LSW staff member would support the outdoors component each time it was delivered.

Support staff in the housing service were also consulted in the development of MST4Life™ (Cooley et al., 2014a). Compared to LSW staff, support workers have greater responsibility to oversee case management, provide wrap-around support and ensure young people's safety and security in accommodation sites. St Basils also highlights that relationship building, the ability to inspire, the capacity to coach life skills, and effective communication are essential skills for support workers. In the early stages of MST4Life™, support staff were included in initial stakeholder consultations and the tripartite knowledge exchange with the university research team and staff outdoor pursuit centre. When delivering the programme, support staff had an important role in helping to set the programme up, promote the programme to service users, encourage engagement, and provide in-session support (i.e., for those with complex support needs, such as learning difficulties). Support staff from the host accommodation site were always consulted prior to a programme with formal and informal meetings. Formal meetings included support staff being informed of what the programme was about, how they could help support it, and how service users could

benefit. Additionally, this was an opportunity for staff to provide information about the accommodation site as well as share their knowledge about service users, such as their risks and support needs and daily schedules. Throughout the programme, facilitators would arrive at the accommodation site early to check in with staff and stay afterwards to debrief. Regular communication with support staff helped the programme facilitators gain an awareness of the social dynamics of the host accommodation site (i.e., any conflicts to be aware of) and personal issues that may have arisen between workshops (e.g., mental health issues). One support staff member from the host accommodation site would attend the outdoors component of the programme, helping facilitators gather risk assessments, complete prior health and safety checks, and, importantly, provide pastoral support for service users during the outdoors experience.

Finally, an important component to understanding St Basils as a research context is the service users themselves. Young people typically seek the support of St Basils when at risk of becoming street homeless (e.g., insecure housing, family conflict) or experiencing street homelessness. Service users who live in accommodation sites can be considered to have a secure and stable living conditions; nonetheless, given the transient nature of their residency with the service, young people at St Basils are still considered to be experiencing a state of homelessness (Canadian Observatory on Homelessness, 2019). As previously mentioned, service users can reside in one of St Basils accommodation sites or receive floating support – a service offered to those stepping into independent living with complex support needs.

Complex support needs are commonplace in young people experiencing homelessness, given their increased risk of exposure to ACEs, such as poverty, family breakdown, and/or abuse (e.g., Homeless Link 2018; Morton et al., 2018). These same issues were prevalent in the young people (ages 16-25) receiving support from St Basils, with the

organisation recognising that family breakdown is the leading cause of homelessness in over half of their service users (www.stbasils.org/youth-homelessness). Research and project field notes also highlight a high prevalence of learning disorders, mental health issues, NEET status, and feelings of disconnectedness in young people engaged with MST4Life™ (Cooley et al., 2016; Quinton et al., 2021). However, these same young people also had many strengths; some had represented their peers in youth advocacy groups, others were engaged in college courses, and many young people were creatively minded. Through MST4Life™ workshops conducted in accommodation sites and local community settings (i.e., Phase 1), service users have opportunities to further develop their skills and strengths, build confidence, and connect with staff and peers. Phase 1 of MST4Life™ also helps prepare participants to engage with Phase 2 of the programme – a four-day and three-night residential outdoors component delivered in a purpose build outdoors pursuit centre.

The Outdoors Pursuit Centre

The outdoors pursuit centre is owned by the University of Birmingham and is located in Coniston, Lake District (UK). The site was officially opened in 1981 and named after the arctic explorer and then vice-chancellor Sir Raymond Priestley. With a capacity to sleep over 50 students per trip, the centre hosts approximately 1000 students each year from a variety of different courses and family trips for university staff. Staff employed at the centre include a centre manager, an administrator, full-time and freelance outdoor instructors, one full-time trainee instructor, and a small team of housekeeping staff (e.g., chef and cleaners). A programme is typically delivered by four to five qualified OAE instructors, with qualifications that include:

> Mountain Leader and Winter Mountain Leader, the Single Pitch Award and
> International Industrial Rope Access for climbing and ropes courses, British Canoeing

Open Canoe, Kayak, Sea Kayak (both senior and advanced instructor level), White

Water Safety Rescue, Royal Yachting Association Sailing, Windsurfing, Powerboat,

Mountain Bike, and Outdoor First Aid. (Cooley, 2015c, p. 45).

The full-time OAE instructors from the centre were important stakeholders in the

MST4Life™ research project; it was their initiative to plan and host a tripartite knowledge

exchange trip to the centre to meet St Basils staff and support the development of

MST4Life™ (Cumming et al., 2015). Specifically, in relation to the outdoor course, the

knowledge exchange trip facilitated discussions between St Basils staff (frontline and

management positions), outdoor instructors, and the university team to ensure the outdoors

component could promote personal development and well-being for service users with

complex support needs (Cumming et al., 2015). A collective consensus was reached that

underscored the importance of the outdoors component providing varying levels of challenge

and, importantly, a challenge by choice policy; for instance, it was important to be mindful of

service users' feelings of vulnerability or stress in being so far removed from their everyday

norms, many of whom had never left Birmingham (outdoors centre was located

approximately 160 miles away). Therefore, steps were taken to minimise undue to stress and

maximise potential engagement; for example, young people requested a later morning start (9

am instead of 8 am) to help maintain energy levels and engagement throughout the day.

Nonetheless, it was agreed that a typical course should be implemented as much as possible,

with activities such as high ropes, mountain bikes, raft building, canoeing and

mountaineering being taught, and structured reflections being incorporated in morning

meetings and after activities.

Staff from the outdoors centre also received presentations on PIE (one full-time

instructor received the three-day PIE training course) and sport psychology to broaden their

delivery skill set. These presentations helped increase staff's awareness of determinants and

effects of youth homelessness and how to implement needs-supportive behaviours when delivering outdoor activities. Furthermore, instructors were included in post-programme debriefings to reflect on the outdoors component and discuss possible changes that could ensure future iterations optimally served and supported participants of the programme.

Summary of research contexts

The research contexts involved in MST4Life™ present starkly different physical environments. While many St Basils accommodation sites can be found in urbanised city settings, the outdoor pursuit centre is located in the remote natural landscape of the Lake District. Moreover, each context presents different staff with varying expertise, with both providing valuable support to the participants during MST4Life™ (see Figure 1.1). The programme's collaborative approach through a CBPR framework mobilised staff's strengths and expertise (Cumming et al., 2015; 2021a). From a research perspective, MST4Life™ was a theory-informed and evidence-based intervention that aimed to mobilise strengths-based approaches to promote participants' well-being and development in the changing physical and social spaces of the research context.

Figure 1.1.

Diagram Depicting Expertise from Different Stakeholders in MST4Life™ (Cumming et al., 2015)
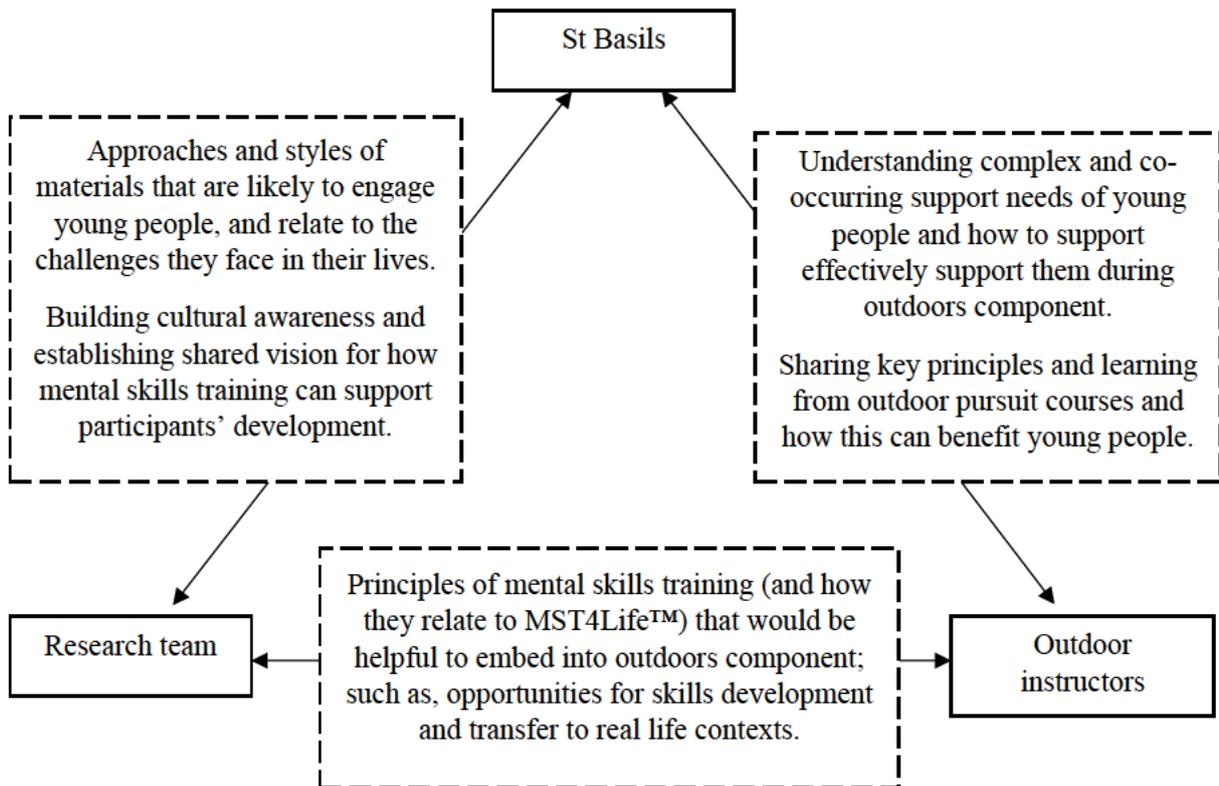
Underpinning Approaches and Theories Applied in MST4Life™

MST4Life™ implements a strengths-based philosophy by combining approaches from the distinct disciplines of sport and positive psychology, including mental skills training (MST), self-determination theory (SDT), and positive youth development (PYD). Moreover, the psychoeducational (Phase 1) and OAE components (Phase 2) adopt pedagogical strategies from experiential learning theory (Cumming et al., 2021a). The following section will provide a descriptive account of these approaches and theories and why they were selected to

inform MST4Life™ before outlining in more specific detail how they were applied in a typical programme.

Sport and Positive Psychology

Sport and positive psychology provide an evidence-based and theoretically-informed framework for how a strengths-based approach is applied in MST4Life™. First, sport psychology centres on an ethos of supporting athletes to thrive and maximise their potential, and in examples of good practice, it captures the essence of a strengths-based approach to performance and personal development (Gordan & Gucciardi, 2011; Ludlam et al., 2015). Although sport psychology is typically associated with developing elite athletes, the International Society of Sport Psychology's (ISSP) position statement in 2015 identified a need for the field to do more to tackle societal issues and outlined key recommendations for programmes to promote PYD (Schinke et al., 2015):

> (a) apply a holistic perspective on participants' development that views them as multi-dimensional people executing different roles/activities in their life and having relevant identities, (b) carefully investigate the developmental needs of the participants having in mind the contexts they are embedded in as well as their past experiences, present situation and anticipated future, and (c) create life skills that meet the participants' current needs and prepare them for foreseeable transitions. (p.14).

When applying sport psychology to young people, it is fundamental that practitioners adjust their practice to deliver interventions that promote developmentally appropriate outcomes (Kipp, 2018). A sport psychology approach that offers a flexible framework for young people and promotes a skill-based approach to development is MST (Vealey, 2007, 2012). Vealey (2007) describes MST as the "learning and implementation of mental techniques that assist individuals in the development of mental skills to achieve performance

success and well-being" (p.288). According to Vealey (2012), there are four different types of mental skills: foundation skills (e.g., achievement drive, self-confidence), performance skills (e.g., coping with stress, attentional focus), personal development (e.g., lifestyle management, identity achievement), and team skills (e.g., communication, leadership). To refine and develop skills, practitioners work with athletes to practice mental techniques, which can be described as "self-directed and repeatable processes that become automatic" (Holland et al., 2018, p. 44). Applied examples of mental techniques include self-talk, pre-performance routines and imagery. As an athlete becomes more proficient in a particular skill or set of skills, they expand their capacity to self-regulate and become more likely to experience mental *qualities*. Mental qualities are enduring psychological outcomes, such as resilience and robust confidence (see Figure 1.2; Holland et al., 2010; Holland et al., 2018).

Figure 1.2

Mental Skills Training Process Model (Holland et al., 2018, p. 44)

Antecedents	Processes			Outcomes
	Techniques "self-directed and repeatable processes that become automatic"	**Skills** "Self-regulatory capacity. Automaticity in successful application of [techniques]"	**Qualities** "Optimal mental states for desired outcomes"	Well-being
Individual				Performance
Environment				Personal Development
	Meta-cognition The awareness, directing, monitoring of thoughts and feelings			

Holland and colleagues' (2018) MST process model elucidates a systematic pathway to promoting psychological development to foster well-being, performance and personal development outcomes. The model's application has been exemplified in a sample of adolescent rugby players, who reported using intra- and interpersonal mental techniques (e.g., self-talk, peer and coach support) to adaptively self-regulate and promote psychological qualities, including confidence, mental toughness and determination (Holland et al., 2010). When mental skills of relaxation, emotional control and self-talk were promoted in an MST programme for track and field athletes, significant reductions in competitive anxiety were observed compared to a control group (Van Neikerk, 2016). Reductions in anxiety have also been evidenced in samples of basketball players and socially disadvantaged students, with additional benefits of team cohesion and feelings of relatedness also being recorded (McMahon & Hanrahan, 2020; Okan Miçooğullari & Kirazci, 2016). MST is also an

effective method to promote feelings of mental toughness, self-esteem, self-efficacy, and positive affect in adolescent swimmers (Sheard & Golby, 2006).

Practitioners delivering MST with young people are encouraged to take a person-centred approach by understanding the individual's needs and their broader environment (Holland et al., 2018). Adolescence, for example, is a period of life typified by rapid and complex rates of neurological development that can predispose young people to impulsive behaviours, risk-taking, and being emotionally reactive (for review, see Blakemore & Robbins, 2015). Therefore, MST with this age group would benefit from focusing on personal development skills, owing to their propensity to support athletes during maturational periods of development (Vealey, 2012). Additionally, evidence supports the application of approaches from mindfulness in traditional MST programmes to promote emotional regulation and mental health and reduce substance use (Gross et al., 2018). Personal, social, and emotional skills should be considered critical in MST for young people exposed to adverse social conditions (Hanrahan et al., 2005; Hanrahan & Ramm, 2015; McMahon & Hanrahan, 2020).

The work by Hanrahan and colleagues (2005, 2015, 2018) demonstrates how a person-centred approach in MST can facilitate skill development in domains away from sport to foster positive outcomes in diverse groups. For example, in a study with adolescent orphans from Mexico (15-20 years), an MST-based intervention (entitled LifeMatters) fostered a range of life skills and promoted feelings of life satisfaction (Hanrahan, 2005). LifeMatters has also been evaluated with a group of emerging adults with gang affiliations (15-29 years), with findings suggesting the intervention group reported improvements in life satisfaction, self-concept, happiness, "physical appearance, close friendship, behavioural conduct, scholastic competence, athletic competence, and social acceptance self-concepts" (Hanrahan & Ramm, 2015, p. 44). Results from the study suggested that socialisation

opportunities during LifeMatters facilitated positive outcomes (Hanrahan & Ramm, 2015).

Socialisation in LifeMatters is an example of how the programme supports feelings of

relatedness and has been linked with reductions in social anxiety in participants of the

programme between the ages of 16 and 17 with experiences of trauma (McMahon &

Hanrahan, 2020). MST4Life™ and LifeMatters show similarities in the way they both

incorporate elements from sport and positive psychology to promote developmental growth

and well-being in disadvantaged groups outside of a sport setting.

Positive psychology (sometimes referred to as strengths-based) is, in many cases,

compatible with sport psychology (Gabana et al., 2016; Gordan & Gucciardi, 2011; Ludlam

et al., 2015). Akin to a strengths-based approach used by practitioners in sport psychology

(e.g., strengths identification; Ludlam et al., 2015), those adopting principles from positive

psychology in their practice look to build on an individual's strengths and nurture growth

through empowerment (Park & Peterson, 2009; Pattoni, 2012). It is widely acknowledged

that positive psychological approaches in youth sports can promote psychosocial skills and

well-being in disadvantaged and non-disadvantaged groups (Cowan et al., 2012; Holt et al.,

2017; Petitpas et al., 2005). Away from sport, a review of positive psychology programmes

for emerging adults with serious mental health issues suggested benefits for participants,

which included establishing a sense of intrinsic motivation, building resilience, building

positive social connections, enhanced quality of life and well-being, and self-respect (Walker

et al., 2015).

A strengths-based approach may be particularly impactful for young people

experiencing homelessness – a population who are more vulnerable to negative self-

perceptions due to social stigma (Bender et al., 2007; Farrugia, 2010). Moreover, given

prominent links between poor mental health, loneliness, and social exclusion in youth

homeless populations (Homeless Link, 2018; Prince's Trust, 2010), supporting young people

to be more aware of their strengths can help to protect against mental illness, promote life satisfaction, enhance social support networks, and promote success in work and education (Gillham et al., 2011; Huta and Hawley, 2010; Morales, 2010; Schutte & Malouff, 2019; Seligman et al., 1999). A study of youth housing services using an SDT-informed approach to implement strengths-based practices found service users receiving strengths-based care reported positive changes in quality of life, satisfaction with family relations, financial and health status, resilience, social inclusion, and feelings of autonomy and competence (Krabbenborg et al., 2017a).

SDT is a theory of motivation that explains human growth and well-being through a conceptualisation of self-determination as a continuum (Ryan & Deci, 2000). The continuum ranges from non self-determined, typified by amotivation, through to self-determined, typified by intrinsic motivation; in between these extremities is extrinsic motivation (Ryan & Deci, 2000). One's behaviour is a manifestation of self-regulatory processes that reflect their motivation. For instance, if someone is amotivated to carry out a task, their behaviour is likely to reflect a lack of intention or control (e.g., learned helplessness), otherwise known as, *non-regulation.* Conversely, intrinsically motivated people identify with *intrinsic regulation*; that is, their engagement is driven by a sense of personal satisfaction or enjoyment.

Motivation can also be extrinsically driven, exemplified by a desire to complete a task for a tangible reward or to alleviate an external demand. The extent to which someone is extrinsically driven can vary. For example, individuals who adopt *integrated* and *identified regulation* strategies see value and importance in completing a task, despite not feeling wholly self-determined or autonomous. Extrinsically motivated people may also adopt *introjected* or *external* regulation strategies, reflected through increasingly non self-determined reasons for taking part in an activity, such as feelings of compliance, punishment or ego-involvement. It is not uncommon for socially disadvantaged young people to

26

experience low levels of intrinsic motivation, which may, in part, explain the high dropout rates observed in these groups when taking part in structured programmes (Luginbuhl et al., 2016; Lyche 2010). Therefore, SDT was applied in MST4Life™ to inform a delivery style that was supportive of participants' basic psychological needs and, subsequently, nurture intrinsic motivation (Cumming et al., 2021).

According to Ryan and Deci (2000), humans have three basic psychological needs: (1) the need to feel autonomous (i.e., feeling one has choice and free will); (2) the need to feel relatedness (i.e., feeling a sense of belonging with others); and (3) the need to feel competent (i.e., a feeling one has the skillset or resources to complete a task). The extent to which we feel our basic psychological needs are either thwarted or supported is a determining factor influencing our motivation (Ryan, 1995; Ryan & Deci, 2000). Indeed, the role of supporting basic psychological needs is exemplified in sport psychology research, underscoring the relationship between coaches' behaviours and athletes' motivations (Reynders et al., 2019; Mageau & Vallerand, 2003; Van de Pol, 2015). For example, coaches who provide a rationale for tasks, acknowledge a player's feelings and perspectives and avoid too many criticisms and tangible rewards are likely to be more effective in supporting athletes' feelings of autonomy and intrinsic motivation (Balaguer et al., 2012; Mageau & Vallerand, 2003). When coaching disadvantaged young people, typical autonomy-supportive behaviours may have a counterproductive effect as participants are still building the required competencies to make appropriate choices and undertake leadership opportunities (Cowan et al., 2012). With the addition of an MST framework, coaches can support young athletes to develop skills that can enhance feelings of competence and motivation, such as self-efficacy, self-esteem, goal-setting, well-being and mental toughness (Edwards & Steyn, 2008; Golby & Wood, 2016; Sheard & Golby, 2006). When studying MST through the lens of basic psychological needs theory in socially disadvantaged students (i.e., LifeMatters programme),

links between promoting feelings of relatedness and reductions in social anxiety have been

reported (McMahon & Hanrahan, 2020). As evidenced by McMahon & Hanrahan (2020),

adopting a needs-supportive approach is one example of how positive psychology can aid the

implementation of sport psychology (namely, MST) away from sport and in community

settings with disadvantaged young people.

Research examining the LifeMatters programme demonstrates the adaptability of

sport psychology to community settings can be enhanced by adopting core tenets of PYD

(Hanrahan et al., 2012). Programmes like LifeMatters and MST4Life™ meet calls for the

field of sport psychology to promote developmental growth and address social injustices

(Schinke et al., 2015). With that being said, MST4Life™ was not initially underpinned by

developmental science; instead, the programme evolved to incorporate tenets of PYD as a

result of further research and contributions from the present thesis. The following section

provides an overview of PYD and provides examples of its pertinence in programmes

targeting socially disadvantaged young people before concluding with a conceptual model

that depicts the assimilation of MST, SDT and PYD in MST4Life™.

In developmental science, PYD is an approach to youth development that stems from

a strengths-based view of young people being resources within a society rather than problems

that need fixing (Damon, 2004). Indeed, this notion pertains to "young people from the most

disadvantaged backgrounds and those with the most troubled histories" (p. 15; Damon,

2004). A tripartite conceptualisation of PYD proposed by Hamilton and colleagues (1999)

suggests PYD can be applied in three ways: (a) a developmental process, (b) a set of core

principles that reflect inclusivity and a strengths-based philosophy, or (c) a range of practices

that organisations or adults put in place to promote PYD principles and positive

developmental processes. These broad conceptualisations of PYD have since been adapted to

inform core features of PYD programmes (e.g., Eccles and Gootman's [2002] guidelines for

community-based programmes) and key outcomes that suggest a young person is thriving (e.g., five Cs of PYD; Roth & Brooks-Gunn, 2003).

Nonetheless, the idea of a 'thriving young person' is not ubiquitous, and well-established indicators of thriving (such as the five Cs model) have been developed with younger adolescents who would not be considered socially disadvantaged (Lerner et al., 2005; Roth & Brooks-Gunn, 2003). Therefore, for PYD to be applied when understanding the effect of MST4Life™ on participants' health, well-being, and development growth, there is a need to consider PYD processes and outcomes in older, socially disadvantaged groups.

In studies with young people between the ages of 16 and 18 in service systems (e.g., juvenile justice, mental health support), PYD practices have been linked to improved feelings of resilience and well-being (Sanders et al., 2015) and positive mental and physical health behaviours (Elliot et al., 2018). Moreover, research exploring the long-term effects of PYD suggested that young people (16-21 years) who received support from PYD-informed services reported sustained improvements in three-year follow-up measures of life satisfaction and prosocial behaviours (Sanders et al., 2017). There is also evidence to suggest programmes can promote employability skills and career success in socially excluded emerging adults (17-24 years; Hull et al., 2018).

With evidence suggesting PYD can promote positive outcomes in some of the most socially disadvantaged young people in society, the important question is, how and why? This question can be answered in part by a common theoretical underpinning of PYD, relational developmental systems theory (RDST; Lerner & Overton, 2008). A central tenet to RDST is a belief in neural plasticity, with neurodevelopment considered most malleable during adolescence, and, therefore, adolescence is a developmental period with great potential for sustained change (Overton, 2010). The direction of change (i.e., positive or

negative) is influenced by the bidirectional relations between an individual and their environment (Overton, 2010). To promote positive change, bidirectional relations must be beneficial for both the individual and their broader ecology, otherwise referred to as *mutually beneficial relations* (Brandtstadter, 2006). PYD programmes are a systematic approach to developing mutually beneficial relations between young people and their environments to promote a healthy developmental trajectory – a process referred to as, *adaptive developmental regulations* (Lerner & Overton, 2008). For example, resources within a programme environment should be conducive to promoting skill development and social engagement; in addition, opportunities should be created for young people to apply their strengths in leadership roles and contribution back to their communities (Lerner et al., 2011).

An important personal strength for experiencing positive interaction within a young person's broader ecology is intentional self-regulation (Napolitano et al., 2011; Urban et al., 2010). In PYD, intentional self-regulation is characterised by goal-directed behaviours in which young people carry out "actions that are actively aimed towards harmonising demands and resources in the context with personal goals in order to attain better functioning and to enhance self-development" (p.204, Gestsdóttir & Lerner, 2008). Cognitive and behavioural skills, such as goal-setting, self-monitoring, and self-correction, underpin young people's abilities to intentionally self-regulate (Demetriou, 2000). In a study of young people from low-income communities, participants with high levels of self-regulation showed better engagement with extracurricular programmes, resulting in reduced depressive symptoms and higher levels of PYD (Urban et al., 2010). However, young people with a high number of ACEs, such as young people experiencing homelessness, are likely to need additional support to self-regulate effectively owing to the harmful effects of adversity and trauma on neurocognitive development (Cook et al., 2005; McCelland et al., 2017). Therefore, it cannot be assumed that socially disadvantaged young people will have the required capacity to

intentionally self-regulate and experience positive interactions with their broader ecology. Programmes targeting socially disadvantaged groups, like MST4Life™, would benefit from a psychoeducational component that fosters the required techniques and skills that underpin one's ability to self-regulate effectively (Bani-Fatemi et al., 2020; Hanrahan & Ramm, 2015). Programmes that provide resources for participants to enhance their self-regulation capacity are more likely to promote indicators of PYD.

Figure 1.3.

Conceptual Model of PYD Informed by Relational Developmental Systems Theory (Lerner et al., 2011, p. 49)
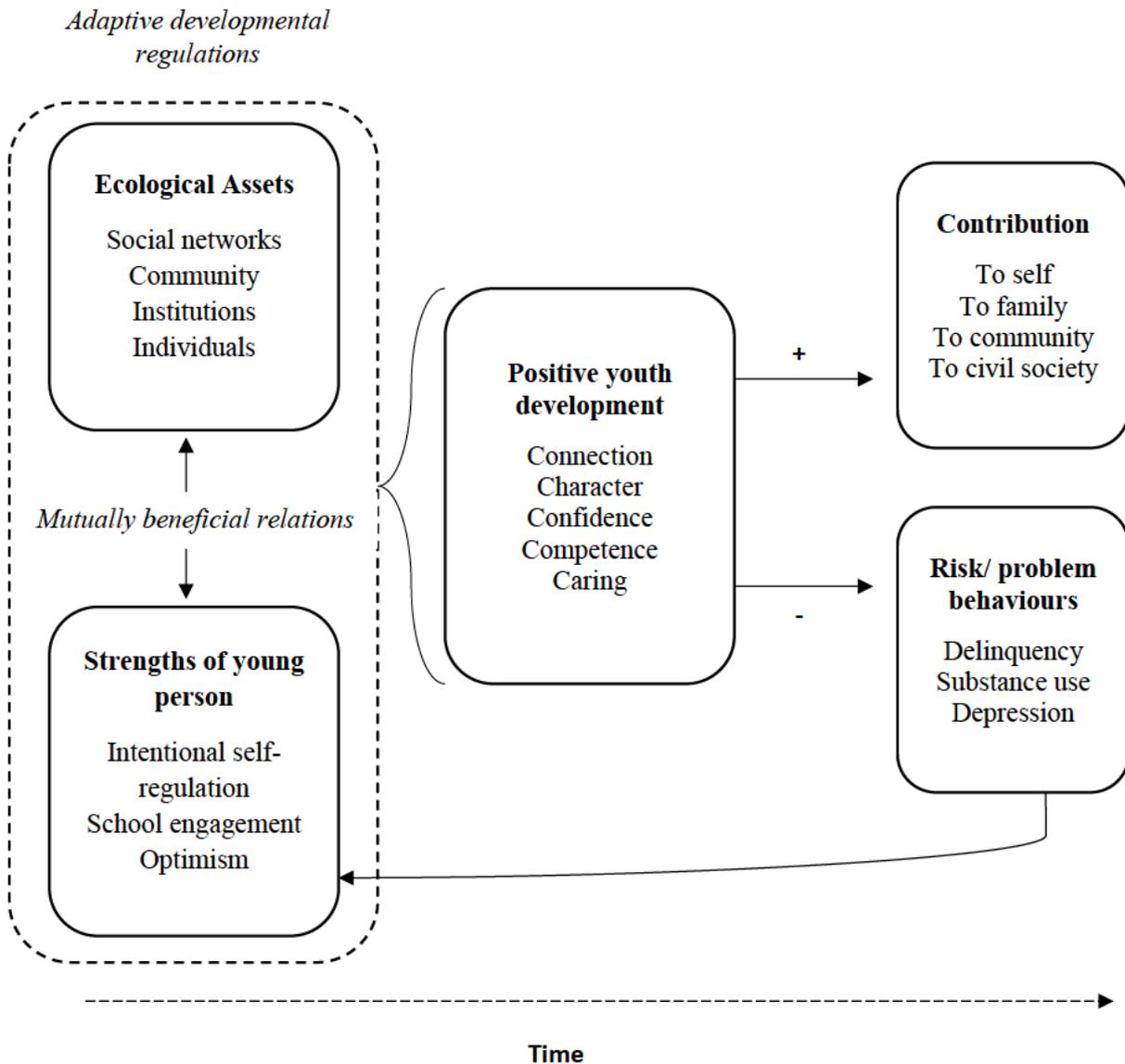
As reflected in Figure 1.3, a common taxonomy for describing indicators of PYD is the five Cs – connection, confidence, caring, character, and competence (Roth & Brooks-Gunn, 2003; Lerner et al., 2005). To date, the five Cs model is the most empirically researched and validated framework for measuring PYD (Heck & Subramaniam, 2009;

Lerner & Lerner, 2013). The strongest body of evidence stems from longitudinal research evaluating the 4-H study in American schools (e.g., Lerner et al., 2005; Bowers et al., 2010). Findings from this research suggest that growth in five Cs in early adolescence promotes longer-term contribution to oneself and their community (Lerner et al., 2005). The five Cs model has also been evidenced as an effective measure of developmental outcomes in mid-adolescence (11-15 years), highlighting its applicability in a wider range of young people (Phelps et al., 2009; Bowers et al., 2010). Adaptive developmental regulations that integrate young peoples' strengths and environmental assets promote growth in the five Cs, reflecting a positive developmental trajectory that fosters young people's potential to thrive (Lerner et al., 2011). Thriving young people are likely to exhibit the sixth C of contribution (to oneself, community, family, and/or society) and a reduction in risk behaviours and internalising problems (e.g., substance use, depression; Lerner, 2005).

Growth in the five Cs has been linked with other mental health indicators, such as resilience in older adolescents and emerging adults from low socioeconomic communities (Forrest-Bank et al., 2015). In a large-scale study of Irish adolescents ($N = 672$; 22% from urban environments), self-reported improvements in the five Cs were associated with reduced substance abuse and delinquency (Conway et al., 2015). Interestingly, Conway and colleagues (2015) also highlighted how females generally scored higher in socio-emotional Cs (caring, connection and character) than males, who scored higher in competence and confidence. An imbalance in different Cs can lead to maladaptive developmental regulations. For instance, proficiency in socio-emotional Cs, coupled with lower confidence and competence, may result in young people contributing to the context at the expense of the self – described as martyring developmental regulations (Geldof et al., 2019). This issue might be particularly pertinent in socially excluded young people, as evidence has highlighted relationships between low self-efficacy and self-esteem with increased risk of victimisation,

poor mental health and feelings of social isolation (Kidd, 2007; Tyler et al., 2019). With limited research exploring the application of the five Cs model in socially disadvantaged groups, Lerner and colleagues (2011) have advocated for a wider examination of the model in different contexts and investigations into how PYD can be applied to socially disadvantaged young people in society.

In sum, the sport and positive psychology approaches that have been applied in MST4Life are: mental skill training (MST), self-determination theory (SDT), and positive youth development (PYD). MST provides a framework for the psychoeducational component of the programme, serving as a 'blueprint' for the systematic development of mental techniques, skills and qualities (MST process model; Holland et al., 2018). A good example of MST being applied in a programme for socially disadvantaged young people away from a sport setting is LifeMatters (Hanrahan et al., 2012). Similar to McMahon and Hanrahan (2020), SDT was utilised as the theoretical underpinning for understanding the effects of the programme on motivation and informing a needs-supportive delivery style. The value of supporting the basic psychological needs of emerging adults experiencing homelessness has been reflected in studies of Dutch housing services, reporting mental, social and physical health benefits for service users in needs-supportive service settings (Krabbenborg et al., 2017). Both MST and SDT were applied to inform the programme from the primary planning phases; however, the role of PYD has evolved over time and requires further research.

The rationale for PYD providing valuable conceptual insights is reflected in the development roots of the field. Evaluating MST4Life™ through a PYD lens can elucidate features of the programme that promote healthy developmental growth. Moreover, building from a similar skills-based approach to development as MST, PYD can provide theoretical insights into how an MST-informed programme fosters adaptive developmental regulations,

which, over time, increase the likelihood that participants will experience indicators of thriving (i.e., the five Cs model and self-regulation).

Figure 1.4 provides an overview of how the MST process model proposed by Holland colleagues (2018) incorporated strengths-based tenets of SDT (basic psychological needs) and PYD to facilitate the delivery of sport psychology in community settings (Figure 1. X). Additionally, both Phases 1 and 2 were grounded by pedagogical approaches that informed an interactive learning style, in line with recommendations made by St Basils (Cooley et al., 2014) and guidelines for interventions for young people experiencing complex support needs, such as ADHD (Powell et al., 2021) and serious mental health issues (Koldnick et al., 2021). The pedagogical approaches implemented in MST4Life™ were experiential learning and outdoor adventure education (OAE), which are described in more detail in the following section.

Figure 1.4.

A Conceptual Model of How Positive Psychology Was Theoretically and Conceptually Integrated into an MST Framework for MST4Life™

Antecedents	Processes	Outcomes

Antecedents

Individual
Strengths of the young person

Environment
Needs supportive climate

*Integrating PYD

Relational developmental systems theory informs how to create adaptive developmental regulations between a young person and their environment.

SDT can be applied as an environmental asset to foster a needs support climate and contribute to adaptive developmental regulations for disadvantaged young people.

Processes

Techniques

"self-directed and repeatable processes that become automatic"

*e.g., goal-setting, coping strategies

Skills

"Self-regulatory capacity. Automaticity in successful application of [techniques]"

*e.g., life skills

Qualities

"Optimal [psychological] states for desired outcomes"

*e.g., 5 Cs of PYD

Meta-cognition
*e.g., intentional self-regulation

*Integrating PYD

Techniques and skills – teaching relevant transferable techniques such as goal setting and coping strategies, to foster life skills that can be applied in different domains and promote intentional self-regulation.

Qualities – the five Cs model can be applied to understand developmentally appropriate qualities to promote thriving in young people (e.g., competence, confidence, caring, character, connection)

Outcomes

Well-being
*and resilience

Performance
*e.g., education, employment

Personal Development
*e.g., contribution, reduced risk behaviours

*Integrating PYD

Well-being and resilience can be fostered through growth in the five Cs and serve as indicators of positive mental health

Performance outcomes can be adapted to reflect prosocial engagement

Personal development is exemplified longer-term outcomes of PYD (e.g., Contribution, reduced risk behaviours)

Experiential Learning and Outdoor Adventure Education

Time in nature is generally thought to be beneficial for young people's health and well-being (for reviews, see Mygind et al., 2019; Tillman et al., 2018) and developmental outcomes (Bowers et al., 2021). However, structured programmes, such as adventure-based learning and outdoor adventure education (OAE), that utilise pedagogical approaches create more explicit learning opportunities for psychosocial growth through challenging outdoor activities and structured reflection (Gass & Stevens, 2007; Ewert & Sibthorp, 2014; Hattie, 1997; Sibthorp & Morgan, 2011b).

Outdoor adventure-based learning and OAE programmes typically involve smaller team-based problem-solving tasks designed to foster group interaction, transferable and teamwork skills, and general well-being (Hattie et al., 1997; Sibthorp et al., 2011b; 2015; Pryor, 2009). In the literature, there does not seem to be any distinguishable differences between adventure-based learning and OAE. For example, in a review of OAE courses for higher education students, Cooley and colleagues (2015) cited research by Hattie et al. (1997) when conceptualising OAE as "structured activities in the outdoors, which have the explicit intention of offering opportunities to practice, and reflect on, group work behaviours in a safe yet unpredictable environment" (p. 582). On the other hand, when describing adventure-based programming in light of PYD, Sibthorp & Morgan (2011b) also cited Hattie et al. (1997) in their definition:

> These programs also generally share a set of common characteristics, including a novel setting and experience, small group sizes, activities involving problem solving and decision making, tasks that are physically and mentally challenging, and an instructor or facilitator who guides participants toward a desired goal. (p. 105).

For the purposes of clarity and consistency, the present thesis will use the term OAE to describe any programmes that include at least two of the following criteria: a structured education component (e.g., life skills programme); team-based activities that facilitate the development of mental, social and physical skills; or state an underpinning pedagogical theory (e.g., experiential learning theory). A good example of a programme that fits these criteria is the Police-Citizens Youth Club (PCYC) Catalyst programme evaluated by Bowen and Neil (2016). The main outdoors component of the PCYC programme was a wilderness expedition, but the programme also included structured reflections pre- and post-intervention, which are underpinned by principles from experiential learning theory (Bowen & Neil, 2016). The PCYC programme is also an example of how OAE courses can be applied when working with socially disadvantaged groups.

For socially disadvantaged groups, OAE programmes can be implemented to address mental health needs, provide therapeutic benefits (e.g., a sense of escapism), promote transferable skills for community engagement, and enhance connection with nature (Bowen & Neil, 2016; Bowers et al., 2019; Lekies et al., 2015; Norton & Watt, 2015). With that being said, studies with groups from urban settings also identify challenges to outdoors programmes, including the physical endurance needed for some activities and overcoming fears (Bowers et al., 2019; Lekies et al., 2015). Therefore, outdoors programmes for young people unfamiliar with the outdoors can benefit from psychological frameworks and experiential learning approaches to provide appropriate support and promote engagement (Bowen & Neil, 2016; Harper et al., 2019; Neil, 2001).

Experiential learning is a pedagogical approach that stems from a philosophical stance that learning is a process, not an outcome (Dewey, 1997). Conceptualising learning as an active process, proponents of experiential learning underscore the importance of learning from doing, utilising immersive experiences, and, importantly, having opportunities for

38

structured reflection (Lewis & Williams, 1994; Kolb et al., 2014). The applied nature of experiential learning has been widely recognised as an advantageous approach to promoting transferable life skills in university students, as well as serving as an effective framework for teaching positive psychology (Biswas-Diener & Patterson, 2011). Moreover, experiential learning is a commonly applied pedagogical framework for outdoor-based programmes that incorporate a more structured approach to youth development (e.g., Bowen & Neil, 2016).

OAE research commonly cites Kolb's (1984) experiential learning model to inform best practices. Kolb's model captures the process of experiential learning that stems from a concrete experience from which given experiences act as 'data' to be internally observed and intentionally reflected upon (Kolb, 1984). The subsequent conclusions one draws serve as a kind of 'theory' from which generalisations and concepts are formed before generating 'hypotheses' to be tested in new situations (and, ultimately, new concrete experiences; Kolb, 1984). Through encouraging active reflection, experiential learning creates opportunities for young people to identify themselves within an experience, creating a more profound sense of meaning and value and increasing the chances that knowledge will be transferred to other settings (Lerberman & Martin, 2004; Luckner & Nadler, 1997). Grounding OAE in experiential learning offers a theory-informed process to transfer and development, making it an ideal setting to complement life skill transfer and development fostered through PYD and MST programmes (e.g., Bowen & Neil, 2016).

Both phases of MST4Life™ were informed by Kolb's (1984) model of experiential learning to meet calls from St Basils stakeholders that the programme would benefit from a hands-on, interactive style of learning. An example of how experiential learning was implemented in Phase 1 of the programme is provided later in this Chapter (Figure 1.6, p. 44). During the OAE component of the programme (Phase 2), experiential learning was applied through structured reflections when reflecting with participants about how their

learning and development from Phase 1 may or may not have impacted their behaviour during the OAE course and how their experience during the OAE course could influence changes in their everyday lives. Moreover, the OAE component was informed by strengths-based practices, such as needs-supportive behaviours and positive individual ↔ context interactions, to ensure participants felt supported through the challenges presented in the OAE component and had opportunities to experience development growth. Figure 1.5 demonstrated how the OAE component incorporated pedagogical and strengths-based theories and practice.

Figure 1.5.

Adopting Pedagogical and Strengths-Based Theory and Practice in the OAE Component of MST4Life™

Experiential Learning

Structured reflections to draw attention to opportunities for transfer of skills and continued development.

Learning goals are process goals (i.e., changes in thoughts and behaviours are signs of development).

Skill transfer from Phase 1 and OAE, and OAE to everyday life

Skill development

MST – activities that encourage transfer of skills from Phase 1 in a novel setting (e.g., team problem solving).

Life skills (PYD) – utilising residential nature of the course to reinforce life skills (e.g., accountability for cleanliness of centre).

Reflections capture needs satisfaction and direction of motivation

Strengths-based philosophy to working with participants

Self Determination Theory

Creating a needs supportive climate, autonomy – challenge through choice policy (Russell & Bisson, 2003); relatedness – feeling supported in team-based activities; competence – achievement is not a standardised, tangible outcome but reflected in individual progression and achievement of personal goals.

To conclude this section, a summary of the core underpinning theories and approaches in MST4Life™ can be found in Table 1.2. The following section provides an overview of a typical MST4Life™ programme with practical examples of how these core theories and approaches are implemented.

Table 1.2.

An Overview of Theories and Approaches Applied in MST4Life™

	Positive Psychology	Sport Psychology	Pedagogy
Key theories	Positive youth development (PYD; Lerner et al., 2005); Self-determination theory (SDT; Ryan & Deci, 2000); Relational developmental systems theory (RDST; Overton, 2010).	Mental skills training (MST; Vealey, 2007).	Experiential learning theory (Dewey, 1997); Outdoor adventure education (Priest & Gass, 1997).
Conceptual models	Five Cs (Roth & Brooks-Gunn, 2003); RDST-informed model of PYD (Lerner et al., 2011) Basic psychological needs (Ryan & Deci, 2000)	MST process model (Holland et al., 2018).	Kolb's reflective cycle (Kolb, 1984).
Main assumption	PYD and RDST – Neural plasticity is the underpinning evidence to a strength-based philosophy that all young people have the capacity for positive change through mutually beneficial interactions between individuals and their environments. SDT – Young people's well-being and motivation can be positively affected when their basic psychological needs of autonomy, competence and relatedness are supported.	Young people's mental skills can be systematically developed through intentional psychological training.	Learning is a process, not an outcome. When learning something new, one is likely to relearn it through the process of self-discovery and adaptation.

A Typical MST4Life™ Programme

A typical MST4Life™ programme included two main phases, a 10-session psychoeducational programme (Phase 1) and a four-day OAE component (Phase 2). These two phases were complimented by preparation and follow-up procedures. In preparation for an MST4Life™ programme, researchers would conduct stakeholder consultations with young people and housing staff. These discussions would provide insights into the physical and social environment of the accommodation site and build a better understanding of young people's strengths, interests, and support needs. Furthermore, the programme facilitators would outline what the programme entailed and the necessary support from staff. Follow-up procedures included additional data collection in the form of questionnaires, focus groups and semi-structured interviews, and an informal celebration for young people completing MST4Life™. The two main phases of MST4Life™ are outlined in greater detail below

Psychoeducational Programme (Phase 1)

The psychoeducational programme incorporated elements of sport psychology and PYD in eight in-house life skills-based workshops (i.e., delivered in St Basils training rooms lasting approximately 90-120 minutes) and two out-of-house community-based sessions (i.e., going into different community space for learning experiences, lasting approximately, 2-3 hours). Learning outcomes were informed by the MST process model outlined by Holland and colleagues (2018); for instance, each activity was structured based on developing mental techniques, skills and qualities (Table 1.3). The workshop content was also informed by PYD, exemplified in group-based discussions, which aimed to convey how mental skills developed in the workshops could apply to everyday life (e.g., Danish et al., 2005).

Table 1.3

A Typical Psychoeducational Programme (Phase 1) Included in MST4Life™ With Examples

of Targeted Psychological Development Outcomes

	Session	**Psychosocial Development Outcomes**		
	Main activities	Techniques	Skills	Qualities
Week 1	Introduction (In-house workshop) *Meet and greet* *Team-based icebreakers*		Socialising with new people	Confidence Enjoyment
Week 2	Future selves (In-house workshop) *Interactive mind mapping* *(In-house workshop)*	Goal-setting	Future planning	Optimism
Week 3	Strength Profile (In-house workshop) *Personalised strengths profile* *(In-house workshop)*	Goal-setting Strengths profiling	Self-awareness of strengths	Self-esteem Resilience
Week 4	'Birmingham Safari' (Out-of-house session) *Team-based challenges and tasks in Birmingham city centre*	If/then planning	Problem-solving Teamwork	Confidence Social support
Week 5	Dream Team (In-house workshop) *Reflect on the different people in their support network*	Building a dream team	Awareness of social support Problem-solving	Social support
Week 6	Cake sale planning (Out-of-house session) *Work as a team to plan a cake sale to raise money for charity*	Goal-setting If/then planning Budgeting	Organisational Teamwork	Decision making Confidence
Week 7	Cake Sale *Plan and run a cake sale*	Goal-setting If/then planning	Organisation Communication Self-regulation	Self-worth Confidence Calm under pressure
Week 8	Emotional awareness (In-house workshop)	Mood mapping	Emotional awareness	Empathy Self-awareness

	Complete emotional awareness grid	Mindfulness Relaxation techniques	Self-regulation	
Week 9	Understanding personality (In-house workshop) *Discuss and reflect on the different dimensions of personality*	Self-reflection	Perspective-taking Self-regulation	Self-awareness Social intelligence
Week 10	Portfolio building (In-house workshop) *Collate all material completed during the course, complete a second strengths profile, and plan for the OAE component*	If/then planning Profiling personal strengths	Problem-solving Planning ahead Self-awareness	Self-worth Life satisfaction Resilience

Note. All sessions started with an informal check-in and concluded with a group-based reflection

In the earlier workshops, there was a focus on building strengths-based self-awareness (e.g., foundational skills; Vealey, 2012), exemplified in the unique MST4Life™ strengths profiling workshop (Cooley et al., 2019). Based on performance profiling from sport psychology (Butler & Hardy, 1992), the strengths profile workshop took a participant-centred and PYD approach to support young people to reflect upon personal strengths that are important in different parts of their lives (Cooley et al., 2019). The strengths profile was an example of the programme's participant-centred approach that supported young people to engage irrespective of differing stages of readiness (Cluss et al., 2006). For instance, initial workshops aimed to build perceptions of self-efficacy and feelings of support (Cluss et al., 2006). Structured reflection helped participants identify areas they'd like to build upon and strengths they could apply throughout the programme; this style of learning in the programme was informed by experiential learning theory (Kolb, 1984). Figure 1.6 provides an example of how Kolb's experiential learning cycle was used as a pedagogical approach to teaching mental skills in the Cake Sale session. The Cake Sale session was a good example of the use

of concrete experiences (through hands-on learning) and structured reflection to promote

development, awareness, and transfer of mental skills in MST4Life™.

Figure 1.6

An Example of How Kolb's (1984) Experiential Learning Cycle Was Used to Inform

Learning in MST4Life™'s Cake Sale Activity

Cake Sale Session

Following on from a previous session of planning the Cake Sale, participants would arrive at the University of Birmingham's campus to set-up and run a charity cake sale.
Targeted mental skills and qualities include teamwork, problem solving, goal setting, confidence, and communication skills.

Concrete Experience
Doing/ having an experience

The Cake Sale session was an opportunity for participants to use the skills they had learned in prior sessions (e.g., communication, goal setting, problem solving).

Active experimentation
Planning/trying out what they learned

Participants were challenged to think about how the Cake Sale could influence their responses to similar challenges in the rest of the programme (e.g., working with peers in team-based challenges during Phase 2) and broader life.

Reflective Observation
Reflecting on the experience

Participants would take part in a group-based reflection that facilitated discussions around how they responded to challenges, highlights and lowlights of the activity, and how, if at all, they used skills from prior sessions.

Abstract conceptualisation
Concluding/ learning from experience

Participants were asked what they took away from the Cake Sale session, thinking about what they learned about themselves and what they took away from the activity.

In the latter workshops, participants engaged in increasingly challenging activities as they became more familiar with each other and progressed in their self-development. The psychoeducational programme was structured to increase levels of challenge throughout to provide novel experiences that promoted the transfer and application of skills developed in previous sessions (Cooley et al., 2014a). For instance, out-of-house workshops facilitated team-building activities, leadership opportunities, and the transfer of skills. An example of an out-of-house activity was the Cake Sale, where participants were challenged to work together to organise and run a cake sale to raise money for charity. In preparation for the activity, participants took part in group-based discussions to identify skills that could help them organise the cake sale, how they would overcome potential barriers (e.g., if/then planning), and effective teamwork strategies. Post-activity reflections focused on how participants applied their skills and strengths to manage their thoughts, feelings and behaviours during the activity (e.g., coping with setbacks or stress).

Positive psychology was pertinent in MST4Life™ regarding *how* the programme was delivered. Programme facilitators adhered to SDT-informed behavioural guidelines to facilitate a motivational climate that supported participants' basic psychological needs (Cumming et al., 2021a; Tidmarsh et al., 2021). An example of the behaviour checklist can be found in Table 1.4 (for the complete checklist, see Appendix A). Furthermore, in alignment with best practice guidelines for working with young people residing at the housing organisation, the programme was informed by PIE. MST4Life™ programme facilitators were initially two postdoctoral researchers with experience in delivering MST and life skills workshops with undergraduate students[4]. Programme facilitators received a three-day PIE training course led by a clinical psychologist. The course aimed to improve facilitators' awareness of the effects of childhood trauma and equip them with psychological

---

[4] At the time research was conducted in the present thesis (2015-2019)

tools; for example, the clinical psychologist explained the ABC model from cognitive behavioural therapy (i.e., Activating event, Behavioural response, Consequences). The purpose of the training was to build awareness of the complex support needs of young people in St Basils and how to bring that awareness into people's thoughts, feelings, and actions when working with service users. Because the housing service adopted service-wide PIE practice (i.e., all staff received PIE training), MST4Life™ was embedded within a PIE atmosphere and style of working.

Table 1.4.

Example Checklist for Competence Supporting and Thwarting Behaviours When Developing a Needs-supportive Climate During MST4Life™

Supportive behaviours: 0 = Didn't do this at all 1 = Didn't do this well 2 = Did this somewhat well 3 = Did this very well			
Thwarting behaviours: 0 = Didn't do this at all 1 = Did this a little 2 = Did this a few times 3 = Did this often			
Area of delivery style	**Behaviours**	**0-3**	**Comments**
Supporting Competence (AKA effectiveness, self-efficacy, mastery)	Acknowledged contributions & praised specific successes		
	Focused on solutions		
	Focused on mental skills and strengths		
	Had a positive and energetic approach		
	Provided a sense of purpose to the session		
Competence thwarting	Focused on the past		
	Focused on problems		
	Punished mistakes		
	Made fun of someone		

The OAE Component (Phase 2)

During the three or four-day OAE component, participants took part in a range of outdoor activities, including canoeing, raft building, a mountain hike, high and low ropes

courses, mountain biking, and caving (Table 1.5; Cooley et al. 2014a). Qualified, experienced

OAE instructors led the delivery of outdoor activities. Just as the outdoor activities are a

central part of the OAE component, so was time for structured reflection, in line with

experiential learning theory and core tenets of OAE (Dewey, 1997; Kolb, 1984). OAE

instructors and programme facilitators jointly facilitated structured reflection. The reflections

aimed to identify how the skills developed in Phase 1 influenced participants' responses to

challenges in the outdoors and impacted their role in team-based activities. Reflective

practice was also used in the morning team meetings to facilitate discussions around best

hopes for the day, problem-solving, and goal-setting (both individually and as a group). In the

evenings, participants were invited to participate in a video diary room (data collection),

answering questions to guide their trip reflections. Participants are also given downtime in the

evenings to rest and socialise (e.g., organised campfires).

When staying at the centre, participants would stay in shared single-sex rooms. The

capacity of rooms ranged from four to eight (eight rooms in total). The rooms could sleep up

to 32 people, which was often far more than was required for the programme (groups sizes

ranged from 8-22). MST4Life™ facilitators took a sensitive and collaborative approach

(consulting staff and young people) when deciding who would share rooms. For example,

facilitators would ask young people with whom they would be comfortable sharing a room,

as well as consult with staff and consider risk assessments to ensure participants were safe.

Room allocations were typically straightforward, and, as there were usually more beds and

rooms than required, participants who preferred to sleep alone could be accommodated.

During the residential, participants could ask to change rooms if they felt uncomfortable; this

rarely happened, yet on occasions when it did, MST4Life™ facilitators would work with St

Basils staff and the participants to find a solution. Additionally, participants were provided

three meals a day; breakfast was usually a combination of cereals or toast, lunch was often a

hot meal cooked by the chef at the centre (on the mountain hike day, participants would prepare a packed lunch), and dinner was prepared by the chef in advance for the MST4Life™ facilitators and St Basils staff to cook in the evening. A rota was devised assigning different groups to prepare for meals (i.e., set the tables and make drinks) or tidy away after meals (i.e., wash up, clean down surfaces); this was an intentional process put in place to maintain a sense of team cohesion and promote interpersonal skills away from structured activities (Cooley, 2015c). Participants were invited to bring additional snacks they enjoyed; however, main meals were provided, and all dietary requirements were met.

Table 1.5

A Typical OAE Programme Included in Phase 2 of MST4Life™ With Examples of Psychological Development Outcomes

	Activities		Psychological Development Outcomes		
	AM	**PM**	**Techniques**	**Skills**	**Qualities**
Day 1	Arrival	Team-based icebreaker activities	Active listening	Socialising with new people Teamwork	Confidence Team cohesion Enjoyment
Day 2	Water-based activities (e.g., canoeing)	Team-based activities (e.g., high ropes course)	If/then planning Self-talk	Self-regulation Problem-solving Teamwork	Leadership Team cohesion Life satisfaction
Day 3	Preparation and start of the mountain hike	Completion and group-based reflection of the mountain hike	Mood mapping Goal-setting	Self-regulation Giving and receiving social support	Resilience Empathy Optimism Self-esteem
Day 4	Outdoor-based activities (e.g., kayaking, caving, mountain biking, high ropes course)	Clean of centre and final group-based reflection	Recognising strengths in self and others Goal-setting	Organisation Perspective-taking Self-awareness	Enjoyment Self-worth Life satisfaction

The Position of This Thesis Within the Larger MST4Life™ Research Project

As a PhD student, my objective was to investigate how MST4Life™ influenced participants' health, well-being and developmental outcomes. Health and well-being were considered through the lens of holistic frameworks, such as the biopsychosocial model of health, to capture mental, social, and physical dynamics (Engel, 1980; Lehman et al., 2017). Developmental outcomes were informed by PYD and MST literature; for example, applying the five Cs model to consider a developmental approach to the mental qualities advocated in MST programmes for young people (Holland et al., 2018; Lerner et al., 2005). Indeed, the programme's positive effect on psychological qualities, such as well-being and resilience, has already been evidenced in quantitative research (Cooley et al., 2019; Quinton et al., 2020; Jabbour & Siu, 2019). However, at the time of starting this PhD (2015), no empirical qualitative studies of the programme were being conducted (although qualitative data were being collected); furthermore, evaluations of the programmes were yet to consider the impact of the programme on participants' health and developmental growth. The present thesis also aimed to contribute to gaps in the knowledge base for MST4Life™ by:

1. Providing a systematic review of the existing literature in the field;

2. Developing a better understanding of the contextual conditions, programme mechanisms, and outcomes for participants from the perspective of key stakeholders; and

3. Conduct an in-depth investigation of the OAE component of the programme.

These gaps were addressed through three empirical studies. First, by conducting a systematic review of the existing literature in the field, the present thesis contributed to the overall project underpinned by the knowledge to action (KTA) framework (Cumming et al., 2021; Graham et al., 2006). KTA stipulates the importance of knowledge inquiry and

51

synthesis in the process of knowledge creation at the early stages of intervention implementation and evaluation (Graham et al., 2006). While relevant research was reviewed when planning MST4Life™, a systematic review of the literature was not conducted. Addressing this gap in the present thesis provides valuable insights into how evaluations of MST4Life™ could provide significant, original and rigorous contributions to the field. For the thesis as a stand-alone body of work, the systematic review provided valuable insights into the extent to which health, well-being, and developmental outcomes are being captured in PYD programmes of a similar nature. A review of quantitative research was conducted owing to a higher proportion of qualitative and mixed-method reviews in the field (Hermens et al., 2017; Holt et al., 2016; Jones et al., 2016). For example, Holt and colleagues (2016) concluded their qualitative review by stating, 'there remains a need to systematically review quantitative studies of PYD through sport to further consolidate the evidence base' (p. 41). Moreover, the last review of similar quantitative evidence was conducted in 2012 and only included participants up to the age of 18 and included 15 studies (Lubans et al., 2012). Given the proliferation of physical activity-based PYD research over the last decade (e.g., trends of publications in recent reviews; Hermens et al., 2017; Holt et al., 2016), there a was a need to conduct an up-to-date review of the literature. The review highlighted a dearth of evidence for physical activity-based PYD programmes in emerging adults and delivered in outdoors settings.

Second, a realist-informed evaluation addressed the gap for evaluations of PYD in emerging adults by exploring the contextual conditions, programme mechanisms, and outcomes for participants from the perspective of key stakeholders. Aligned with CBPR principles, young people, St Basils staff, and OAE instructors all played a key role in developing the programme (Cooley et al., 2015b); however, to date, there is yet to have been an empirical study of MST4Life™ that captures the views of key stakeholders in a way that

aims to understand how and why the programme works. In conducting a study of this nature, the realist-informed evaluation aligned with the CBPR principles of the larger research project, as exemplified in stakeholders being consulted in the research process (i.e., in critical conversations about research findings) and the study adopting participatory approaches to data collection with young people (Conolly, 2008). This study contributed to informing an MST4Life™ programme theory of change and provided clarity regarding which elements of the programme are seen as valuable by the stakeholders. Insights gleaned from this study informed subsequent staff training (i.e., which elements of the programme are key to maintain in future iterations) to enhance the sustainability of the programme as well as the Commissioning and Evaluation toolkit as part of the aforementioned knowledge translation project (Clarke et al., 2020).

The third and final gap addressed in the present thesis was the need for an in-depth, qualitative investigation into the OAE component of the programme. At the time of starting this PhD, the OAE component of MST4Life™ had not been studied in detail; yet internal reports and informal feedback from stakeholders suggested it plays an important role in promoting positive health and well-being outcomes (Cooley et al., 2015b). The notion of utilising outdoor programmes for young people experiencing homelessness was a novel one; however, evidence pointing to the effectiveness of outdoors programmes in older adolescents and emerging adults with complex support needs suggests there may be profound benefits (Bowen & Neil, 2016; Harper et al., 2019; Norton & Watt, 2014). To understand the health, well-being and developmental benefits of the OAE component, the present thesis applied an RDST-informed conceptual model from PYD (e.g., including the five Cs of PYD; Lerner et al., 2011). Understanding participants' experiences through a developmental lens can provide theory-informed insights into why MST4Life™ participants benefit from their unique experiences in the outdoors. More broadly, this study contributed to gaps identified in the

systematic review (Chapter 2) that indicated limited evidence of PYD-informed evaluations of outdoors-based programmes with socially disadvantaged young people in late adolescence and emerging adulthood.

Finally, the present thesis also aimed to provide novel insights into the fields of positive and sport psychology, and approaches to working with young people experiencing homelessness and other socially disadvantaged groups (the broader scope of this thesis is illustrated in Figure 1.7). For example, PYD has seldom been explored in emerging adults and, more specifically, those experiencing homelessness. Moreover, there remains a need for more effective intervention approaches in youth housing services in the UK (Homeless Link, 2018). This thesis contributes new ideas for how interventions can incorporate tenets from MST (e.g., non-stigmatising), PYD (e.g., life skills and strengths-based), SDT (e.g., needs-supportive), and OAE (e.g., experiential learning and benefits of the outdoors). Further details of the unique contributions each empirical study makes are outlined in their respective chapters. In sum, the present thesis had five overarching aims:

a) To review the existing literature regarding the effectiveness of physical activity-based PYD programmes to improve health inequalities in disadvantaged young people;

b) Provide a theoretically informed evaluation of MST4Life™ to understand the extent to which the programme can promote positive outcomes and address health inequalities in young people experiencing homelessness;

c) Investigate the processes and mechanisms that underpin outcomes observed to improve our understanding of how young people experience the programme, as well as identify core components of the programme that are central to its success or failure;

d) Conduct an in-depth exploration of young people's experiences of the OAE component of MST4Life™ to understand its influence on young people's development, health, and well-being;

e) Provide meaningful insights into the MST4Life™ programme that can support its sustainability in the community and inform practitioners working with young people within the homeless sector.

Figure 1.7.

Venn Diagram Depicting the Scope of the Present Thesis

Increasingly urbanised living conditions for disadvantaged young people is limiting their opportunities for interaction with nature.

Evidence suggests outdoors-based programmes can foster positive health outcomes in young people with complex support needs (e.g., Harper et al., 2019).

Experiential learning theory is a pedagogical approach to skill development in OAE programmes (Kolb et al., 1984).

Socially Disadvantaged Young People

Disparities in health, well-being and developmental outcomes for young people experiencing homelessness

MST – a sport psychology intervention for implementing a skill-based development of young athletes' mental performance and well-being (Vealey, 2007).

PYD – a skill-based approach to working with young people, promoting community engagement and well-being (Damon, 2004).

PYD can inform MST by emphasising life skills, guidelines for developmentally appropriate outcomes, and creating adaptive relations between participants and their environment.

Combining a strengths-based approach and OAE is likely to promote personal growth (Passarelli et al., 2010).

SDT can inform a needs supportive climate for helping disadvantaged young people thrive in the outdoors (Deci & Ryan, 2000).

OAE provides many advantageous ecological assets to foster adaptive developmental regulations and PYD outcomes (Sibthorp & Morgan, 2011).

Physical Activity

The outdoors can offer a range of health benefits.

OAE is a specific form of outdoors programmes that fosters transfer and skill development.

Strengths-based

Sport psychology (MST) and PYD research provide frameworks to support the delivery and evaluation of strength-based interventions.

MST4Life™

A community-based, sport psychology informed PYD programme for young people experiencing homelessness (16-24 years).

Present thesis

Understanding the impact of the programme on the health, well-being and developmental outcomes of participants

56

An overview of this thesis and specific research questions for each study is provided in Table 1.6. The next chapter provides a systematic review of the existing literature for physical activity-based PYD programmes targeting socially disadvantaged young people.

Table 1.6.

Overview of Empirical Chapters and Research Questions Included in This Thesis

	Study type	**Data**	**Research Questions**
Chapter 2	Systematic Review	Outcomes from evaluations of physical activity-based PYD programmes for socially disadvantaged young people in the existing literature	1. How effective are existing programmes in addressing health inequalities in socially disadvantaged young people? 2. What can be learned from the current literature, and what gaps are present in the existing evidence base?
Chapter 4	Realist-Informed Evaluation of MST4Life™	Qualitative data collected from young people, housing staff, and OAE instructors	1. What are the contextual conditions and programme mechanisms that influence how young people respond to MST4Life™? 2. What are the short- and long-term outcomes for participants as a result of taking part in MST4Life™?
Chapter 5	Qualitative evaluation of the OAE component	Experiences of participants having completed the OAE component of MST4Life™	1. To what extent can the OAE component of MST4Life™ promote personal growth and health benefits? 2. What do participants' experiences tell us about the core components of OAE that foster engagement and positive outcomes?

Chapter 2: Systematic Review

Introduction

The purpose of this systematic review was to investigate literature evaluating physical activity-based positive youth development (PYD) programmes for socially disadvantaged young people. In doing, this study contributes to gaps in the My Strengths Training for Life™ (MST4Life™) evidence base by conducting the first systematic review of programmes that are strengths-based and include a physical activity component. Systematic reviews provide a rigorous process for knowledge synthesis in community-based research projects grounded in knowledge-to-action frameworks (i.e., MST4Life™; Clarke et al., 2020). More broadly, this systematic review will make novel contributions to the review knowledge base of physical activity-based PYD programmes by answering calls "to systematically review quantitative studies of PYD through sport to further consolidate the evidence base" (Holt et al., 2017; p. 41). Although Holt and colleagues' (2017) review only included sport-based programmes and did not specifically target socially disadvantaged young people, this systematic review of quantitative evidence will be the first of its kind for physical activity-based PYD programmes in socially disadvantaged groups.

In relation to the present thesis, this systematic review will provide a rigorous exploration of pertinent literature. The emphasis on quantitative research was decided due to recent reviews having already provided thorough insights into qualitative and mixed methods evaluations (Hermens et al., 2017; Holt et al., 2017; Whitley et al., 2018). On the other hand, the last review of quantitative evidence for the effects of physical activity-based programmes (not informed by PYD) for socially disadvantaged young people was conducted nearly a decade ago (Lubans et al., 2012), which suggests the evidence base for this literature would benefit from being re-examined. Although a focus on quantitative evidence conflicts with the

qualitative evaluations of MST4Life™ conducted in this thesis, the aim was for this review to contribute to building a thorough understanding of the literature, as well as address gaps in the MST4Life™ knowledge-base (i.e., no previous systematic reviews conducted) and the broader review knowledge-base (i.e., limited synthesis of quantitative evidence). This introduction is divided into two subsections to further outline the rationale for this review; these subsections are socially disadvantaged young people and different physical activity settings, and PYD outcomes and health.

Socially Disadvantaged Young People and Different Physical Activity Settings

It is important to acknowledge that organised youth sport can exclude young people from low socioeconomic families (i.e., financial barriers; Holt et al., 2011). Additionally, social disadvantages, such as being in care, are also thought to present barriers to sport participation (Quarmby & Pickering, 2016). Although sport is often used as a vehicle for development in PYD programmes for socially disadvantaged young people (for reviews see Hermens et al., 2017; Lubans et al., 2012 Whitley et al., 2018); physical activity settings such as the outdoors, yoga, and physical fitness have also been recognised for promoting beneficial developmental outcomes in these groups (Lubans et al., 2012). A review presented by Lubans and colleagues (2012) explored the social and emotional well-being of sport-, outdoors-, and fitness-based at-risk young people between the ages of 10-18 years. The review indicated the potential benefits of different physical activity settings (Lubans et al., 2012); however, it did not specify that programmes were PYD-informed. Further, given that nearly a decade has passed since the review (Lubans et al., 2012), there is a need to re-evaluate and update the evidence base.

Another point for further exploration of physical activity-based PYD programmes is the broad age range included in recent reviews. As exemplified in Holt and colleagues'

(2016) review, the age range of 6-18+ years of age covers multiple developmental stages. Similarly, broad age ranges are included in reviews for socially disadvantaged young people without acknowledgement of how programmes or outcomes may differ at different developmental stages (combined age range of 4-23 years of age in reviews by Hermens et al., 2017 and Lubans et al., 2012). As has been previously discussed (see Chapter 1), between the ages of 10-24, young people are thought to go through three developmental periods, early adolescence (10-14 years), late adolescence (15-19 years), and emerging adulthood (20-24 years; Sawyer et al., 2012). During these developmental stages, different resources will be more or less accessible in PYD programmes which may influence their delivery or accessibility. For instance, for young people in early and late adolescence, school-based programmes may still provide valuable PYD influences and structured programmes (Curran & Wexler, 2017). However, for those in young adulthood, they may already be disconnected from school settings or estranged from family units (Hull et al., 2018; Simone et al., 2021). To date, review literature has not explored how the designs and settings of physical activity-based PYD programmes may differ across different developmental stages. Without understanding potential differences in intervention characteristics across developmental stages, it is difficult to draw conclusions that can inform age-appropriate programme designs of physical activity-based programmes for socially disadvantaged young people.

PYD Outcomes and Health

It is also important to consider the physical, social and mental changes that occur for young people as they transition through adolescence to emerging adulthood. Although each developmental period presents unique developmental milestones and characteristics, young people will typically undergo complex processes in neurological and cognitive development and physical and sexual maturation (Sawyer et al., 2012; Viner et al., 2012). Additionally, young people experience social and emotional changes, exemplified by placing a stronger

emphasis on peer acceptance, heightened capacity for emotional regulation, and leaving the family home (Hochberg & Konner, 2020; Rosenblum & Lewis, 2003). The interconnected and co-occurring nature of these psychological, physical, and social changes can increase the risk of poor health outcomes, including depression, substance use, and social withdrawal (Arnett, 2005; Bowker et al., 2013; Tanner, 2016). Health risks are further exacerbated by disadvantaging social determinants, such as relative poverty, experiencing abuse, or a lack of employment and education opportunities (Hagell et al., 2018; Lee et al., 2013; Maynard et al., 2015; Viner et al., 2012). The range of health inequalities experienced by socially disadvantaged young people underscores the need to consider the impacts of physical activity-based PYD programmes in light of these issues. A review of research in socially disadvantaged groups emphasised life skill development but did not consider how, if at all, sport-based PYD programmes can play a role in addressing health inequalities (Hermens et al., 2017). Framing PYD outcomes with a model of health can contribute to addressing this gap in the review literature.

The biopsychosocial model was initially developed in clinical health care to understand the interacting factors between physical, psychological, and social ill-health (Engle, 1977; Borrell-Carrió et al., 2004). The model views health as a dynamic system contingent on the reciprocal influences of psychological attributes, interpersonal networks, biological functionality, and broader contextual conditions (Lehman et al., 2017). In recognising the fluid components of the model, it has been proposed that health behaviours can also be captured at the intersection of dynamics of health interacting (Lehman et al., 2017). Considering multiple dynamics of health may be particularly salient when aiming to capture health disparities, such as substance abuse, which is thought to be rooted in psychological issues but also results in biological issues (Hall et al., 2016) and can be perpetuated by harmful environments (Irwin & Sales, 2013). The biopsychosocial model has

been applied to demonstrate the interacting nature of social conditions (e.g., peer and parental influence), biological development (e.g., brain maturation), and psychological influences (e.g., self-esteem) to explain young people's propensity for risk-taking behaviours (Irwin & Millstein, 1986).

The systems approach reflected in the biopsychosocial model of health resonates with tenets of relational developmental systems theory (RDST) that underscores the importance of individual and context interactions in PYD programmes to promote healthy developmental growth for young people (Overton & Lerner, 2008). PYD programmes create structured and intentional micro-social climates that buffer against risky environments and promote positive health behaviours, such as reductions in violence and substance use (Bonell et al., 2016; Sanders et al., 2015; Melendez-Torres et al., 2016). However, the physical health benefits of physical activity-based programmes for socially disadvantaged young people have not been captured in recent reviews (Hermens et al., Lubans et al., 2012; Whitley et al., 2018). Physical health disparities are prevalent in young people from socially disadvantaged backgrounds, reflecting lower levels of physical activity, poor nutrition, and higher rates of obesity (Mark et al., 2012; Lee et al., 2103; Salmon et al., 2011). While framing physical activity interventions with a PYD framework serves to promote psychosocial outcomes (Holt et al., 2017); there may also be physical health benefits that are promoted by the very nature of engaging young people in physical activity (Hallal et al., 2006; Van Sluijs et al., 2007). For young people from socially disadvantaged backgrounds, engaging in physical activity is likely to improve indicators of physical health, including obesity, activity levels, and cardiovascular-related outcomes (Shoup et al., 2008; Salvini et al., 2018). Therefore, there is a need for to understand the full range of biopsychosocial health benefits of physical activity-based PYD programmes when considering their potential benefits socially disadvantaged young people.

Study Aims

In sum, more can be done to understand how physical activity-based PYD programmes can contribute to health outcomes for socially disadvantaged young people, particularly in light of different developmental stages between the broad age ranges included in recent reviews. Aiming to contribute to addressing gaps in the exisiting knowledge base, this review explored three novel lines of inquiry:

1. Investigating a broader range of physical activity-based settings (e.g., the outdoors, fitness, yoga) contributes to gaps in the literature of physical activity settings beyond sport being overlooked (Hermens et al., 2017; Holt et al., 2017);

2. Understanding the impact of programmes for socially disadvantaged young people based on different developmental stages (i.e., early adolescence, 10-14 years; late adolescence, 15-19 years; and emerging adulthood, 20-24 years; Sawyer et al., 2012); in doing so, addressing oversights in previous reviews that have captured broad age ranges without specifying how outcomes may differ depending on the developmental stage (Hermens et al., 2017; Holt et al., 2017; Lubans et al., 2012)

3. Mapping PYD outcomes onto the biopsychosocial model of health to further investigate the extent to which PYD outcomes can be linked to the health status of socially disadvantaged young people (Bonnell et al., 2016; Ciocanel et al., 2017; Meldenez-Torres et al., 2016).

Additionally, the present review evaluated quantitative evaluations to address gaps identified in the review for the model of sport-based PYD (Holt et al., 2017). The research questions that informed this review are,

1. To what extent can physical activity-based PYD programmes contribute to addressing health inequalities in socially disadvantaged young people?

2. What can be learned from the current literature to inform future practice and what

    more can be done to expand the existing evidence base?

Methods

This review was guided by the Preferred Reporting Items for Systematic Reviews and

Meta-Analyses (PRISMA) checklist (Moher et al., 2009). The PICO statement informing the

inclusion criteria was: 'To what extent do physical activity-based PYD programmes improve

health outcomes in socially disadvantaged young people?'. Inclusion criteria were:

(1) Research published in a peer-reviewed journal (between 1990-2021[5]) reporting

findings from experimental designs, that is, clearly reporting changes in an independent

variable(s) from pre to post-test (or follow-up) as a result of taking part in a structured

physical activity-based PYD programme;

(2) Physical activity-based PYD programmes – articles were required to evaluate a

programme that engaged participants in some form of structured physical activity (e.g., sport,

outdoor activities, physical fitness, yoga, physically active games). Additionally, programmes

had to meet at least one of Eccles and Gootman's (2002) eight features for community-based

youth development programmes (Table 2.1). This framework was chosen due to its clear and

comprehensive descriptions of features and relevance to socially disadvantaged young

people. It was not compulsory that programmes had to be explicitly informed by a specific

PYD framework, but they were required to reflect a strengths-based approach and show a

structured approach to youth development; for example, including a life skills component or,

as stated above, showing congruence with Eccles and Gootman's (2002) guidelines.

Table 2.1.

Features of Community-Based PYD Programmes from Eccles & Gootman (2002), p. 90-91

---

[5] The date range for inclusion of articles after 1990 was determined by a comprehensive review of the history of PYD by Catalano et al. (2008) which provides strong evidence for the emergence of PYD as an approach to youth programming in the 1990's.

Features	Description
Physical and psychological safety	Safe and health-promoting facilities; and practices that increase safe peer group interaction and decrease unsafe or confrontational peer interactions.
Appropriate structure	Limit setting; clear and consistent rules and expectations; firm-enough control; continuity and predictability; clear boundaries, and age-appropriate monitoring
Supporting relationships	Warmth; closeness; connectedness; good communication; caring; support; guidance; secure attachment; and responsiveness
Opportunities to belong	Opportunities for meaningful inclusion regardless of one's gender, ethnicity, sexual orientation, or disabilities; social inclusion, social engagement, and integration; opportunities for socio-cultural identity formation; and support for cultural and bicultural competence.
Positive social norms	Rule of behaviour; expectations; injunctions; ways of doing things; values and morals; and obligations for service.
Support for efficacy and mattering	Youth-based; empowerment practices that support autonomy; making a real difference in one's community; and being taken seriously. Practice that includes enabling, responsibility granting, and meaningful challenge. Practices that focus on improvement rather than on relative current performance levels.
Opportunities for skills building	Opportunities to learn physical, intellectual, psychological, emotional, and social skills; exposure to intentional learning experiences; opportunities to learn cultural literacies, media literacy, communication skills, and good habits of mind; preparation for adult empowerment; and opportunities to develop social and cultural capital.
Integration of family, school, and community efforts	Concordance; coordination; and synergy among family, school, and community.

(3) Socially disadvantaged young people – social disadvantage was defined as "a construct that captures various dimensions of social position, such as economic status, educational attainment, as well as ethnicity" (Rijlaarsdam, 2014; p. 11). This definition was supplemented by research concerning adverse childhood experiences and a recent review of social disadvantage in young people (Hagell et al., 2018; Nurius et al., 2012), which

identified the need to consider money and resources (e.g., debt and housing costs), living conditions (e.g., single-parent households or unstable living conditions), family and community (e.g., abuse in the family home), work and worklessness (e.g., not engaged in education, employment, or training), and education (e.g., excluded from formal education settings). These criteria for social disadvantage were adapted based on relevance for different ages; for example, work and worklessness were more pertinent to young people in late adolescence and emerging adulthood.

(4) Clearly stated mean age or age range of participants that fell between 10 and 24 years in line with research guidelines (Gore et al., 2011; Sawyer et al., 20\12).

Whether or not an article met the inclusion criteria were determined by the lead researcher in collaboration with the wider research team.

Search Strategy

Eight electronic databases were searched: Web of Science, PsycInfo, SportDiscus, MEDLINE, Child Development and Adolescence Studies, ERIC (EBSCO), ProQuest: Physical Education Index, EMBASE (Ovid). In addition, Google Scholar (www.googlescholar.com) and reference lists from previous reviews (e.g., Hermens et al., 2017) were also utilised. When searching the databases (1985 to week 3 of July 2021), key terms and medical search headings (MeSH) were used to address the themes identified in the PICO statement: young people, socially disadvantaged, positive youth development, physical activity, and health (see supplementary materials).

Following the initial search, a co-supervisor of this thesis (JLT) and I separately screen titles and abstracts being meeting to reach a consensus on articles that met the inclusion criteria and qualified for full-text review.

Data Extraction

Full-text reviews were carried out by the lead author (all papers) and four of the five co-authors (papers split evenly), using a data extraction tool explicitly created for the review (see supplementary materials). Each researcher completed data extraction independently and met with the lead author to discuss findings and reach an agreement. An independent researcher was identified to reconcile any discrepancies, which was not required.

Critical Appraisal Assessment

The methodological quality and risk of bias of the included articles were assessed using the appropriate Joanna Brigg Institute (JBI) critical appraisal tools by four trained researchers (The JBI, 2017). When using the tools, different criteria were applied depending on the study design. For each criterion, researchers answered either yes it was met, no it was not met, unclear, or not applicable. Criteria that were not applicable for the included studies were blinding deliverers of the treatment (i.e., the programme) to the treatment (randomised control trial [RCT] appraisal tool) and reporting of clinical populations (case series appraisal tool). As such, these criteria were removed from the overall maximum score that could be achieved.

Following guidance for using JBI appraisal tools, the research team reached a consensus on what was considered high, moderate and low risk of bias based on appraisal scores (Moola et al., 2015; Munn et al., 2019). Risk of bias was determined by the percentage of criteria that received 'not met' or 'unclear'; for example, if ≥70% of risk assessment criteria were marked as not met or unclear, a study was considered high risk, between 31% and 69% moderate risk, and ≤30% low risk. A three-part percentile approach has previously been adopted by reviews using JBI appraisal tools (Becker et al., 2017; Dizon & Reyes, 2010; Raphaelis et al., 2017). Given subjectivity and bias issues when using appraisal tools (Katrak et al., 2004; Kmet et al., 2004), results from critical appraisals in the present study served to

inform the overall quality of included studies and risk of bias in findings but were not used to exclude articles.

Analysis

Initial analysis identified heterogeneity in measurement tools, statistical analyses applied, and outcomes reported across included articles, which meant a meta-analysis of the data was not possible; instead, a narrative synthesis was employed (Popay et al., 2006). Guidelines for conducting a narrative synthesis suggest four stages. (1) having a theory of change model; (2) preliminary synthesis; (3) exploring relationships in the data; and (4) assessing the robustness of the synthesis (Popay et al., 2006). Popay and colleagues (2006) state that a specific theory of change model is not always necessary; however, there should be theoretical underpinnings that outline how the interventions are expected to work. For this review, the sport-based PYD model presented by Holt et al. (2017) was used to inform pathways to PYD outcomes through physical activity. This model was complemented by Eccles and Gootman's (2002) guidelines for community-based youth development to define PYD components of programmes, and the biopsychosocial model of health was used to depict how PYD outcomes interact with health-related outcomes (Figure 2.1).

Figure 2.1.

A Theory-Informed Model to Guide a Narrative Synthesis in the Systematic Review

Distal ecological logical systems (community, policy, culture)	
Individual	

Present review:

Young people experiencing social disadvantage across developmental stages of early adolescence (10-14 years), late adolescence (15-19 years), and emerging adulthood (20-24 years).

In the present review, informed by Eccles and Gootman's (2002) features of community-based PYD programmes

PYD Climate

Parents
Peers
Coaches

1. Physical and psyhcological safety
2. Appropriate structure
3. Supporting relationships
4. Opportunities to belong
5. Positive social norms
6. Support for efficacy and mattering
7. Opportunities for skills building
8. Integration of family, school, and community efforts

(Implicit process)

(Explicit process)

Life skills component

In the present review, informed by Engles' (1977) biopsychosocial model of health

PYD Outcomes

Mental
Physical
Social

Mental

Social   **Biological**

Key
This model was informed by research from Eccles & Gootman, 2002 (green shaded boxe), Holt et al., 2017 (white boxes), Lehman et al., 2017 (yellow shaded box), and guidelines for developmental stages and social disadvantage (Rijlaarsdam, 2014; Hagell et al., 2018; Nurius et al., 2012; Sawyer et al., 2012; orange shaded box)

During the preliminary synthesis, exploration of relationships in the data were guided by similarities in programme characteristics (e.g., physical activity setting), developmental stages (e.g., early and late adolescence and emerging adulthood) and outcomes reported (e.g., the extent to which outcomes captured different elements of the biopsychosocial model). The analysis involved an iterative process of using methods like tabulation and thematic analysis to understand patterns across the data; these processes informed the figures that complement the result section. Additionally, the robustness of the synthesis was informed by findings from critical appraisals of the included studies.

Results

Initial search results yielded 1098 articles. After removing duplicates and title and abstract screening, 44 articles underwent a full-text review; 24 of these met the inclusion criteria and were included in the review (see Figure 2.2 for an overview of the search process). Details of included articles can be found in Table 2.1.

Figure 2.2.

PRISMA Flow Diagram of Review Search
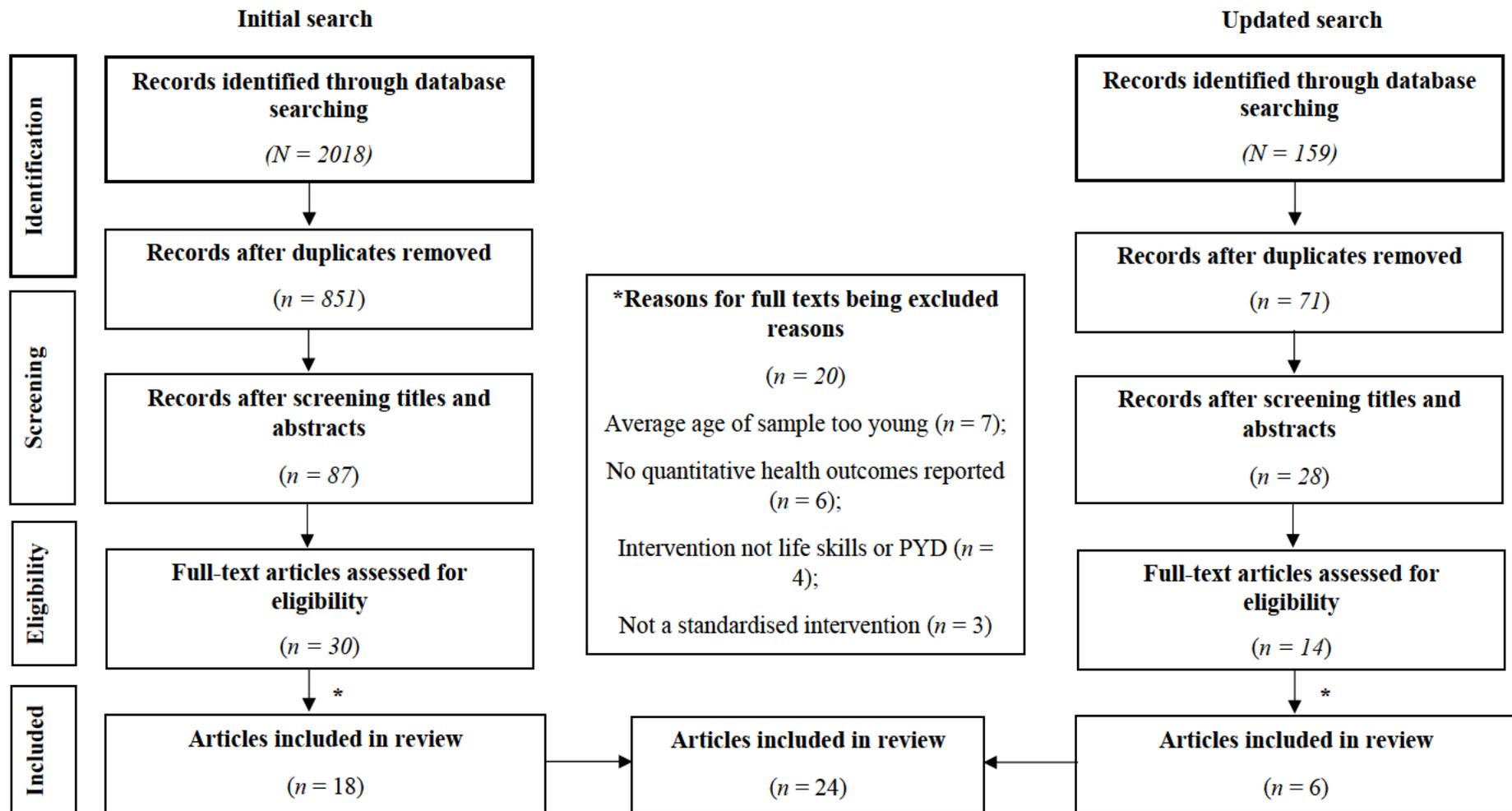
Table 2.2.

Overview of Included Articles

Study *Risk of bias*	Theoretical Framework	Name of programme and programme aims	Participants	Social disadvantage	Physical activity setting (country) *Programme content*
Early Adolescence (10-14 years of age)					
Anderson-Butcher et al., 2014 *Moderate*	PYD (namely, TPSR model)	LiFE*sports* – improve social and sport competence among vulnerable youth	$N = 287$; males = 169, females = 118; ages 9-16 ($M = 11.8$, $SD = 1.54$).	"majority of youth came from disadvantaged circumstances, as 61.3% reported receiving free and/or reduced lunch at school" (p.240).	Sport-based summer camp (USA). *LiFEsports: 19 consecutive working days. Participants received one hour of play-based social skills instruction and three hours of sport (e.g., basketball, softball, soccer).*
Anderson-Butcher et al., 2018 *Low*	PYD (namely, TPSR model)	LiFE*sports (see Anderson-Butcher et al., 2014)*	$N = 231$ males = 143 females = 109 ages 9-14 ($M = 10.71$, $SD = 1.48$).	"urban youth living at or below the federal poverty level" (p.18).	Sport-based summer camp (USA). LiFE*sports (see Anderson-Butcher et al., 2014)*
Bowen & Neill, 2016 *Moderate*	Adventure-based counselling and	The Catalyst programme – to develop life sills, mental health, and behavioural	$N = 53$; males = 37, females = 16;	"at risk of adverse outcomes in their educational, vocational, and life-course pathways" (p. 38).	Outdoors-based programme (Australia). *The programme included: three-day, two-night lead-in, a nine-day outdoors expedition, and three*

	experiential learning	functioning in at-risk youth.	ages 13-16 (M = 14, SD = 0.7).		*separate follow-up days over a 10-12-week period. Participants also received eight additional hours of personal mentoring from trained volunteers (who they had worked with during the expedition)*
Collingwood et al., 2000 *High*	Not reported (life skills intervention)	First Choice Physical Fitness programme - improve participants' fitness levels and reduce patterns of substance use and associated risk factors	N = 329; 55.1% males, 44.9% female; Mage = 12.1	Youth at-risk of substance use.	Physical fitness-based programme (USA). *Nine- to 12-week programme (three days/week). A typical session: 30-60 minutes of physical fitness training, and 15-30 minutes of fitness life skills.*
Frank et al., 2017 *Moderate*	Not reported (life skills intervention)	Transformative Life Skills programme – to improve participants' emotional distress, prosocial behaviours, and school attainment.	n = 159; 50.9% male, 46.5% female; Sixth grade (53%), ninth grade (47%).	"Participants included students attending a diverse middle school in a high-poverty catchment area within an inner-city urban area of California" (p.546)	In-school yoga-based programme (USA). *48 sessions delivered during the first school semester (~30 minutes/session). A typical session: yoga skills and psychosocial skills.*
Frazier et al., 2015 *Moderate*	PYD	Leaders @ Play – building social competencies and fostering feelings of resilience	n = 46; 59% female;	Majority of participants received free or reduced school meals (78%) and were from areas with high-risk status (e.g., severe	Park- and sport-based programme (USA). *Ten-week programme (two 90-minute sessions/week) consisting of*

		through recreational, park-based activities.	*M*age = 13.09, *SD* = 0.97.	economic disadvantage, high rates of violence).	*sport-based and scenario games which aimed to facilitate intra- and interpersonal skills.*
Peralta et al., 2014 *Moderate*	Not reported (life skills intervention).	Community and school sport programme (SCP) – Improve life skills and physical activity levels of urban Indigenous adolescents.	*N* = 34; 42% male, 58% female; *M*age = 13.7, (*SD* = 1.2).	Educationally disadvantaged – lower educational outcomes than non-Indigenous peers.	In-school, sports-based programme (Australia). *Ten-week programme. Typical week: one sport-based session, and one theoretical lesson delivered by members of community.*
Mala et al., 2020 *Moderate*	Sport-based youth development and PYD	No formal programme name – aimed to enhance prosocial outcomes and school engagement in ethnic minority students.	*N* = 76 (control = 46, intervention = 30) 100% males Ages 10-14 (*M*age = 11.46).	Black and Latino boys from underserved area qualifying for free/ reduced school lunch.	Sport-based school programme (USA). *20-week programme (two 45-minute sessions/ week). Session included the teaching of authentic leaderships and life skills through team sports and games.*
McDavid & McDonough, 2020 *Moderate*	PYD	No formal programme name – aimed to support participants to development life skills for academic, social, and physical domains	*N* = 394; 53% male, 47% female; *M*age = 10.20.	Free or reduced school lunch.	Summer physical activity programme (USA). *Four-week programme (5 days/week), six hours of programme content delivered per day. Typical day: four physical activity sessions (e.g., volleyball, football, general fitness and dance) and one classroom-based session (e.g., character-building life skill*

					curriculum). Participants spend approximately 70% of their time physically active during the programme.
Newman et al., 2020 *Low*	PYD, TPSR model	LiFE*sports (see Anderson-Butcher et al., 2014)*	*N* = 438; 257 males, 179 females; *M*age = 11.51 (*SD* = 1.70).	Youth of colour living in poverty-stricken communities, 77.5% of participants qualified for free school meals	Sport-based summer camp (USA). *LiFEsports (see, Anderson-Butcher et al, 2014).*
Riley et al., 2017 *Moderate*	PYD	LiFE*sports (see Anderson-Butcher et al., 2014).*	*N* = 329; 209 males 120 female; *M*age = 11.52.	"live at or below the federal poverty level, and reside in urban areas of the community" (p. 62).	Sport-based summer camp (USA). *LiFEsports (see, Anderson-Butcher et al, 2014).*
Robbins et al., 2019 *Moderate*	Health promotion model and self-determination theory (SDT).	Girls on the Move (GOTM) – improve moderate to vigorous physical activity (MVPA) levels in participants girls from low-income neighbourhoods.	*N* = 1519 (intervention, *n* = 753 & control *n* = 766); 100% female; Intervention: *M*age = 12.05 (*SD* = 0.99) Control: *M*age = 12.05 (*SD* = 1.02).	Schools were located in low socioeconomic status community.	Physical activity-based after school programme (USA) *The programme consisted of three phases, 1) physical activity after school club (3 days/week); 2) "two face-to-face 15- to 20-min motivational, individually tailored counselling sessions (one at the beginning other at the end of intervention)" (p.494); and 3) an interactive internet session at the midpoint of the programme.*

Terry et al., 2014 *Moderate*	Not reported (life skills intervention)	Box'Tag® - improve physical fitness and psychological well-being of at-risk students.	*N* = 51; 28 males, 23 females; Ages 11-12.	Students who were "at risk of social disengagement" (p. 260).	In-school physical fitness-based programme (Australia). *19 activity sessions over a school term. Typical session: 15 minutes registration and 35 minutes activities.*
Ullrich-French & Mcdonough, 2013 *Moderate*	PYD	*See, McDavid & McDonough, 2020.*	*N* = 215 111 males, 104 females; Ages 8-13 (*M* = 11.16, *SD* = 1.22).	Free or reduced school lunch.	Sport- physical fitness-based summer camp (USA). *For programme content, see McDavid & McDonough, 2020.*
Ullrich-French et al., 2012 *Moderate*	PYD	*See, McDavid & McDonough, 2020.*	*N* = 197 95 males, 102 females; Ages 9-16 (*M* = 11.8, *SD* = 1.6).	Free or reduced school lunch.	Sport- physical fitness-based summer camp (USA). *For programme content, see McDavid & McDonough, 2020.*

Late Adolescence (15-19 years)

Barker & Forneris, 2011 *Moderate*	PYD, The Sports United to Promote Education and Recreation (SUPER) framework	No formal programme name – aimed to enhance physical fitness and social development in disadvantaged youth through a life skills-based	*N* = 26 males = 23, females = 3; ages 12-17;	"socially at-risk youth from lower-SES families" and/or "under care of social services (e.g., foster care or full provincial custody) or in contact with social services for various reasons" (p. 197)	Summer fitness programme (Canada) *Eight-week programme: three 60-minute fitness sessions (e.g., bodyweight training, cardio sessions), one 60-minute life skills session and one 60-minute one-to-one counselling session.*

		physical fitness programme.			
Barker et al., 2016 *Moderate*	PYD, TPSR Model	PULSE programme – a community-based physical fitness and life skills programme that aimed to increase physcial activity levels and PYD in disadvantaged young people	*N* = 27; males = 21, females = 6; ages 13-17 (*M* = 15.5)	"schools... located in low-income neighbourhoods and have been reviewed as in need of additional supports due to higher rates of dropout, youth crime and a lack of access to community resources" (p. 103)	Physical fitness programme (Canada) *16 fitness sessions over a two-month period (twice a week, for two hours). Typical session: five-ten minutes of relational time, awareness talk, fitness class, and debrief*
Bowers et al., (2019) *Moderate*	Five Cs of PYD	No formal programme – to promote personal growth through an outdoor adventure camp	*N* = 75; 54.7% male, 45.3% female; ages 13-21 (*M* = 16.76; *SD* = 2.23).	"racially and ethnically diverse youth from urban communities" (p. 123). Urban communities were defined by population density, land use, and socioeconomic conditions.	Outdoor adventure camp (USA) *3-day camp where participants took part in range of outdoor activities (e.g., mountain biking, water-based sports, climbing walls).*
D'Andrea et al., 2013 *Moderate*	Trauma-informed treatment principles (life skills intervention)	Play to the Whistle – a trauma-informed, sports-based intervention deisgned to improve mental health and behavioural outcomes in	*N* = 88; 100% female; ages 12-21.	"history of childhood physical abuse, sexual abuse, or neglect as documented by state protective services, and met criteria for posttraumatic stress disorder (PTSD), as determined by clinician diagnosis" (p.742).	Sports-based programme (USA). *Coaches facilitated life skills through hour long basketball games (once a week over five-months) and specific basketball skill development sessions (once every six weeks).*

		traumatised young girls.			
Inoue et al., 2015 _Moderate_	PYD and SDT	Students Run Philly Style – increase sport participation, intrinsic motivation for running, and improve developmental outcomes.	$n = 330$; 45.8% male, 53.3% female; ages 12-18 ($M = 15.23$, $SD = 1.86$).	Participants were "mainly from low-socioeconomic families" (p. 375).	In-school, running-based programme (USA). _An after-school programme that ran throughout school year. Participants were mentored by trained adult volunteers and took part in running-based activities to improve developmental and fitness outcomes._
McMahon & Hanrahan, 2020 _Low_	SDT, sport psychology (mental skills training)	LifeMatters – aims to promote feelings of trust and improve social skills through team-based, physically active games and mental skills training.	$N = 40$; 35 males, 5 females; Mage = 16.7 (age range = 16-17 years).	Young people attending a specialist school that aims to support students who find it difficult to engage with mainstream education due to "behavioural or developmental issues" (p. 209)	Physically active games (Australia) _The programme consisted of 10 life skills sessions (approximately two hours/ session over two week period) which included dedicated time for life skills development (i.e., taught workshops and reflective discussions) and physically active team-based games (e.g., link tag)._
Norton & Watt 2014 _High_	PYD, Developmental Assets	Big City Mountaineers – promote positive adult-youth relationships and PYD through a wilderness expedition	$N = 159$; 56.6% male, 42.1% female; ages 13-22 ($M = 15.97$).	"underresourced teens" (p.341) e.g., 71% single parent households, 83% live below poverty line, 62% not travelled outside county of residence.	Wilderness-based programme (USA). _Three phases of programme: pre-expedition (participants met volunteers and staff), eight-day expedition (hiking, camping, and canoeing), and post-expedition (reflection and transfer of skills). Participants received 1-to-1_

					mentioned text...
					mentoring with a trained volunteer throughout the wilderness expedition.

| Ramadoss & Bose, 2010

Moderate | Not reported (yoga-based life skills intervention) | Transformative Life Skills (*see Frank et al., 2017*) | Sample A: $N = 75$

44% male, 56% female;

Ages 16-17

Sample B: $N = 472$

48.8% male, 51.2% female

High school age (14-18 years) | Sample A*:* incarcerated youth

Sample B: free or reduced school lunch. | Yoga-based programme (USA)

Sample A: Delivered at a juvenile justice centre, five 60-minute sessions/week (duration not clear). Typical session: checking-in, a series of yoga-based poses and breathing exercises, and checking-out.

Sample B: The 18-week programme delivered in urban schools. Typical 15-minute session: opening bell, yoga-based poses and breathing exercises, meditation, silent sitting, closing bell. |

Emerging adulthood (20-24 years)

| Hanrahan & Ramm, 2015

Low | Sport psychology (mental skills training) | LifeMatters (*see McMahon & Hanrahan, 2020*) | $N = 19$

Mage = 19.95 ($SD = 4.93$). | Young gang members at greater risk of experiencing violence, drug addiction, and delinquency. | Physically active games (Mexico)

For programme content, see McMahon & Hanrahan (2020). |

High of bias = ≥ 70% of appraisal criteria being scored as not met or unclear; moderate risk of bias = 69% - 31% of appraisal criteria being scored as not met or unclear; low risk of bias = ≤ 30% of appraisal criteria being scored as not met or unclear.

Critical Appraisal (Robustness of Synthesis)

The risk of bias in the included articles was assessed as moderate-to-high, reflected by an average of 68.3% of quality appraisal criteria being scored as "not met" or "unclear" (see supplementary materials). As such, findings from the review should be interpreted with caution. Most articles applied a case series study design (50%), although quasi-experimental (37.5%) and RCT designs were also used (12.5%). All but two studies were considered to have applied appropriate statistical analyses (full details reported in supplementary materials). The limited number of RCTs should be considered in the context of conducting evaluations of field-based interventions in disadvantaged communities, where experimental designs (such as RCTs) are not always appropriate due to the complexities of programme contexts, ethical and feasibility issues concerning control groups, and smaller sample sizes increasing the risk of Type 2 errors (Brady & O'Regan, 2009).

Demographics

Demographic information concerning sample sizes, age, and sex can be found in Table 2.2. Social disadvantage was typically defined by socioeconomic variables, including the community's average income in which interventions were delivered, the number of participants receiving free or reduced school meals (a common indicator of low-income status for children in the United States of America[6]), and/or socioeconomic status of participants' families. Three interventions were delivered to young people considered at-risk for drug and substance use (Collingwood et al., 2000), adverse outcomes in 'educational, vocational and life-course pathways' (Bowen & Neil, 2016; p. 38), or social or school disengagement (McMahon & Hanrahan, 2020; Terry et al., 2014). One intervention was delivered to participants of Aboriginal and Strait Islander descent, a demographic considered

---

[6] Children who are eligible for free or reduced school meals are from families with an income that is ≥130% below the national poverty line (https://www feedingamerica.org/take-action/advocate/federal-hunger-relief-programs/national-school-lunch-program)

educationally disadvantaged in Australia (Peralta et al., 2016). Other disadvantaged groups included incarcerated youth (Ramadoss & Bose, 2014), late adolescents and emerging adults with gang affiliations (Hanrahan & Ramm, 2015), and young people with experiences of childhood abuse or neglect (D'Andrea et al., 2013).

Table 2.3

Demographic Information of Participants from Included Studies

Total number of participants	5774 ($M = 231$)
Largest sample	1519 (Robbins et al., 2019)
Smallest sample	19 (Hanrahan & Ramm, 2015)
Average age	13.3 years (range = 9-29 years)
Early adolescence	11.5 years (16 studies)
Later adolescence	16 years (7 studies)
Emerging adulthood	20 years (1 study)
Sex	
Male	39.3%
Female	60.7%
Other	0

Intervention Characteristics

A total of 20 different interventions were evaluated, with studies taking place in the USA ($n = 17$), Australia ($n = 4$), Canada ($n = 2$), and Mexico ($n = 1$); reported sample sizes in these studies ranged from 26 to 1519 ($M = 248$; see Table 1 for additional details). Interventions that were evaluated in multiple studies included the Learning in Fitness and Education Sports Camp (LiFE*sports*), Transformative Life Skills, LifeMatters, and a summer sports camp.

Early adolescence (10-14 years of age)

Programmes including participants in early adolescence showed a propensity for sport-based physical activity settings but also included physical fitness, an outdoors setting and physically active games (Table 2.1). Additionally, eight of the nine programmes included a life skills component, with many programmes aiming to improve social skills and competence through workshops and using physical activity as a transfer context. For example, the LiFE*sports* programme included time for play-based social skills development and team-based sports. On the other hand, the Box'Tag® programme did not provide an explicit life skills component; instead, boxing-based activities were used to implicitly build confidence and improve school attainment (Terry et al., 2014). LiFE*sports* was an example of a programme that was informed by PYD, namely the Teaching Personal and Social Responsibility (TPSR) model (Hellison, 2002). Two other sport-based programmes (see Mala et al., 2020 and McDonough & McDavid, 2020 in Table 1) and one parks-based programme (Leaders @ Play; Frazier et al., 2015) explicitly stated PYD literature and research as informing programme content and delivery. While other programmes were not specifically grounded in PYD, they had a strong emphasis on promoting PYD outcomes. For example, the Transformative Life Skills programme (yoga-based) reported a detailed life skills curriculum targeting self-regulation, coping mechanisms, physical and emotional awareness, and healthy relationships (Frank et al., 2017). Interestingly, programmes that utilised more fitness-orientated physical activity sessions (e.g., running, circuit training, boxing-based activities) stated specific aims to improve physical health outcomes, such as increasing moderate-to-vigorous physical activity (MVPA) levels and general physical fitness (Collingwood et al., 2000; Robbins et al., 2019; Terry et al., 2014).

Six of the nine programmes were delivered in school settings (including an after-school programme). The longest and most intensive programme (i.e., number of sessions per week and length of sessions) was delivered over a school semester (approximately 15 weeks)

with a total of 48 sessions (approximately 30 mins/ session; Transformative Life Skills; Frank et al., 2017). Summer camp programmes were typically shorter and more intensive; for example, days on camp lasted up to six hours for four consecutive weeks (see McDavid & McDonough, 2020). Other school-based programmes ranged from 9- to 20-weeks, typically including one to two sessions per week (ranging from 15-60 minutes/ session). The only outdoors-based programme included a nine-day wilderness expedition, as well as pre- and post-expedition sessions (Bowen & Neil, 2016).

Late adolescence (15-19 years of age)

Programmes targeting participants in late adolescence included sport, outdoors, yoga, and physically active games (Table 1). All programmes included a life skills component but had different aims and underpinning theories. For instance, the two outdoors-based programmes were both informed by PYD; however, the Big City Mountaineers programme involved the 40 development assets (Search Institute, 2012) and the programme evaluated Bowers and colleagues (2019) was guided by the five Cs of PYD (Roth-Brooks & Gunn, 2003). On the other hand, the two physical fitness programmes reported using the TPSR model and the Sport United to Promote Education and Recreation (SUPER) framework (Barker & Forneris, 2011; Barker et al., 2016). Self-determination theory (SDT; Ryan & Deci, 2000) was also cited when describing Students Run Philly Style (PYD-informed and running-based; Inoue et al., 2015) and LifeMatters (sport psychology informed and physically active games-based; McMahon & Hanrahan, 2020). The Play to Whistle programme (not informed by PYD) applied strategies from trauma-informed research and Dialectical Behavioural Therapy (DBT) to support participants with experiences of complex trauma (D'Andrea et al., 2013). Finally, a pilot version of Transformative Life Skills was also reported (Ramadoss & Bose, 2010).

Two of the programmes were delivered in school settings; Students Run Philly Style was delivered throughout the school year and LifeMatters consisted of ten sessions delivered on school days over a two-week period. There were no discernible trends or patterns concerning the duration and intensity of programmes (see Table 1 for more details). However, it was interesting that physical activity was often used as a context to nurture well-being and mental health, as opposed to developing physical health and skill benefits as observed in programmes for early adolescents. For example, coaches of the Play to the Whistle programme had training on how to incorporate teachable moments in games of basketball and being aware of the effects of trauma; furthermore, the life skills curriculum had a strong focus on giving and receiving social support from teammates. Moreover, physically active games were used in LifeMatters to promote feelings of connectedness and enjoyment. Comparatively, the yoga and mindfulness-based activities in the Transformative Life Skills programme focused on enhancing emotional well-being.

Emerging adulthood (20-24 years of age)

The LifeMatters programme was the only programme delivered to emerging adults (Hanrahan & Ramm, 2015). Another evaluation of this programme included disengaged students between the ages of 16-17. When delivered to emerging adults, the LifeMatters programme was implemented in collaboration with an organisation in Mexico that aimed to support "young gang members to leave their situations of violence, drug addiction, and delinquency" (Hanrahan & Ramm, 2015; p. 42). The age range was 15-29, but the mean age of 19.95 (rounded up to 20) fell within the review's criteria for emerging adulthood. The study did not report any major changes in the programme delivery or content when compared to other settings. The programme consisted of ten sessions (approximately two hours/ session) held on weekdays over a two-week period and involved physically active games

"designed to develop communication, trust, teamwork, and problem-solving skills"
(Hanrahan & Ramm, 2015; p. 43).

Narrative Synthesis of Outcomes

The heterogeneity of programme designs, participants sampled, outcomes recorded, measures used, and statistical analysis implemented made synthesising the literature challenging and this is reflected in a more descriptive presentation of the data. However, efforts have been made to compare and contrast studies where possible.

Early Adolescence (10-14 years of age)

The average age of early adolescent participants was 11.5 years. However, in one study, participants' average age (Mage =14 years; SD = 0.7; Bowen & Neil, 2016) was older than the average age across studies; therefore, some participants would be classed as late adolescence. Overall, programmes targeting this age group showed a pattern of positive, pre- to post-test findings for psychological and social dynamics of health. However, there were also positive findings for physical dynamics of heath and more complex outcomes that reflected interaction between the different dynamics.

In the psychological dynamic of health, the strong evidence for the development of emotional regulation skills (e.g., responses to stress) and enhanced emotional well-being (e.g., positive and negative affect, somatization) was reported in an RCT study of the yoga-based programme, Transformative Life Skill (Frank et al., 2016). The school-based study included 159 participants in the intervention group and detailed an extensive life skills curriculum (Frank et al., 2016). The closest comparable study design and emotional outcomes were captured in an evaluation of the Box'Tag® programme through 'difficulty scores' (e.g., emotional and conduct problems, hyperactivity) and total mood disturbance (e.g., feelings of anger, fatigue, vigour, tension, depression, and confusion; Terry et al., 2014); findings from the study reported no significant group effects at post-test or follow-up measurements. The

Box'Tag® study reported a much smaller sample size (intervention group, $N = 22$) and did not randomise groups (allocation determined by the perceived risk of students). Moreover, the Box'Tag® programme did not complement the physical activity component with a life skills programme.

Additionally, findings from the Transformative Life Skills programme suggested significant group effects for unexcused absences and detentions in pre- to post-test measures and school engagement ($p \leq .05$; $d \leq -0.86$), and non-statistically significant differences for school suspensions and grades in Maths and English (Frank et al., 2017). Comparatively, a school- and sport-based programme, where the intervention group was all-male ($N = 22$), reported statistically significant groups effects ($p = .00$; medium-large effect size, $\eta^2 = 0.17$) for perceptions of school climate (Mala et al., 2020). School climate was calculated using an overall score from questions about school connectedness, peer support, social/civic learning, and school engagement.

School-based programmes were typically longer in duration (i.e., length of a school semester) and included between two-four sessions per week (ranging from 30-60 minutes/ session). Comparatively, the LiFE*sports* programme and another sports-based programme (unnamed) were more intensive approaches delivered in summer camp formats; for example, shorter duration (i.e., four-five week programmes) with programme days being delivered every work day and lasting between four-six hours (Anderson-Butcher et al., 2014; Ullrich-French et al., 2012). Both of these programmes included a life skills component alongside sport- and physical activity-based sessions.

Overall, the seven studies evaluating these sport-based, camp-style format programmes suggested it was an effective approach to fostering positive pre- to post-test changes in social and psychological dynamics of health. The two studies with the largest sample sizes came from evaluations of LiFE*sports* and reported statistically significant

improvements in pre- to post-test changes in social competence, sport competence, self-control, social responsibility, effort, and teamwork in 287 participants ($p < .05$; Anderson-Butcher et al., 2014); and in self-control ($p < .01$; large effect size, $d = .92$) and externalising behaviours ($p > .05$) in 329 participants (Riley et al., 2017). In addition, findings from the other sport-based programme suggested that 271 participants reported statistically significant pre- to post-test improvements in perceptions of hope, physical self-worth, global self-worth, physical competence, attraction to physical activity, and social competence ($p \leq .05$; $\eta^2 \leq 0.5$; Ullrich-French et al., 2012). Findings from both programmes suggested positive relationships with staff were linked to psychological and social outcomes (McDavid & McDonough, 2020; Newman et al., 2020). Finally, the longer-term impact of the programmes was reflected in significant Time X Cluster interaction effects for measures of teamwork, self-control, effort, and transfer for participants of LiFE*sports* ($< .001$; $\eta^2 \geq 0.09$ Anderson-Butcher et al., 2018); and sustained improvements in all six outcomes reported by Ullrich-French and colleagues (2012), with changes in global self-worth reached statistical significance ($p < .05$; small effect size, $\eta^2 \leq .12$; Ullrich & McDonough, 2013).

Findings from the follow-up evaluation of the unnamed sports-based programme also suggested participants with a low body mass index (BMI) at the end of the programme were more likely to return to the programme at a year later (Ullrich-French & McDonough, 2013). Other physical health outcomes were captured in two studies of the, Fitness First Choice (Collingwood et al., 2000), BoxTag (Terry et al., 2014), and Girls on the Move (Robbins et al., 2019), with the findings reported suggesting inconclusive evidence for the effects of programmes on outcome measures. The most rigorous measure of physical activity captured moderative-to-vigorous physical activity (MVPA) levels using accelerometers at post-test and nine-month follow-up; findings indicated that MVPA did not significantly differ between matched pair controls at both time points ($p \geq .05$). Changes in pre- to post-test measures of

self-report data indicated participants' activity levels increased from taking part in Fitness First Choice indicated improvements in high school (average increase of 1.8%, $N = 34$), junior schools (average increase of 8.8%, $N = 73$), and community settings (average increase of 19.9%, $N = 218$); however, only changes at one community-based setting reached statistical significance ($p < .05$). Evaluations of Fitness First Choice and the Box Tag reported a trend of positive, pre- to post-test findings in performances in physical fitness tests (e.g., one-mile run, number of push-ups and sit-ups completed in one minute, agility and flexibility) and measures of body fat (BMI and skinfold measures).

Additionally, the evaluation by Collingwood and colleagues (2000) was also the only study that reported changes in substance use (self-report). There was an overall reduction in substance use patterns across sites, with reductions in cigarette and alcohol use at one community site ($N = 156$) reaching statistical significance ($p < .05$; Collingwood et al., 2000).

The evaluation of the Fitness Frist Choice programme was also only one of two studies to report on changes in well-being, the other being an evaluation of the wilderness-based, Catalyst programme (Bowen & Neil, 2016). It was difficult to compare these studies; while the evaluation of the Fitness First Choice programme had a larger sample size (329 participants compared to 53), participants were from different settings and ranged in age (i.e., participants from high school and junior school). Additionally, only findings from the Catalyst programme included effect sizes and follow-up measures. Both programmes indicated positive and negative findings. Bowen and Neil (2016) took an aggregated score of mental well-being and distress to estimate programme effects on mental health. Findings suggested that in pre- to post-test measures, participants' mental health worsened (small effect size, $g = -0.12$); however, follow-up measures (taken six months after the programme) indicated mental health improvement (medium effect size, $g = 0.42$). Findings from the Fitness First Choice evaluation suggested an overall improvement in well-being, with

changes at two community sites reaching statistical significance ($p \leq .01$), and participants at one junior school reporting a slight decrease ($p > 0.5$; Collingwood et al., 2000).

The evaluation of the Catalyst programme was one of two studies to report effects on life skills[7], the other being study of a community- and school-based physical activity programme (Peralta et al., 2013). These two studies reflected participants closest in age (M age of 13.7 and 14 years) and were both set in Australia; however, the urban indigenous participants included in the evaluation conducted by Peralta et al. (2013) were a unique population. Moreover, the wildness expedition compared to school-based physical activity sessions made it difficult to compare the role of physical activity on outcomes. Findings reported by Peralta et al. (2013) suggested improvements in life skills from pre- to post-test measures did not reach statistically significant ($p < .05$). Effect sizes reported for changes in life skills for participants taking part in the Catalyst programme were, on average, small in pre- to-post measures and medium-to-large in the pre-test to follow-up measures (Bowen & Neil, 2016).

In a similar skills-based evaluation of the Leaders @ Play programme (mixed physical activity sessions), staff and parents' ratings of participants' social skills improved across baseline, post-test and follow-up measures; however, only changes in staff ratings reached statistical significance from baseline to follow-up ($p < .05$; Frazier et al., 2015).

---

[7] Life skills include in measurement tool were, self-esteem, self-confidence, self-awareness, emotional resilience, goal-setting, locus of control, healthy risk taking, and communication and teamwork skills.

Figure 2.3

Mapping PYD Outcomes for Early Adolescents on to the Biopsychosocial Model of Health (Lehman et al., 2017)

Biological/ Physical Dynamics

Physical activity levels
Body Mass Index measures
Skin fold measures

Psychological Dynamics

Emotional well-being (e.g., mood disturbance, emotional regulation and resilience, positive and negative affect)
Mental health (psychological distress vs well-being)
Self-perceptions (e.g., self-awareness, confidence)

Dynamic Health Outcomes*

Substance use
Responses to stress
Healthy risk taking
Sport and physical competence
Behavioural conduct in school
Antisocial behaviour in community
Attitudes towards violence
Self-control

Social Dynamics

School and community engagement
Sense of belonging and connectedness (e.g., with peers in school)
Social skills (e.g., teamwork, communication)
Social responsibility

Contextual Dynamics

Young people (*M*age = 11.5) from low-income communities in western societies facing severe levels of poverty, at-risk of negative life trajectories, or were an ethnic minority.

*Dynamic health behaviours were outcomes that perceived to reflect two or more dynamics of physical, social, or mental health.

90

Late Adolescence (15-19 years)

The average age of participants across these studies was 16 years of age. Two studies reported an age range that would have included emerging adults in the study sample; however, as participants were unable to be separated by age, these studies were included in late adolescence based on the average age of the sample. In total, seven studies evaluated programmes for late adolescence, including two RCTs of Play to the Whistle and LifeMatters that reported outcomes for indicators of mental and social health.

Evaluations of Play to the Whistle and Life matters included sample sizes of 88 (*M* age = 12.1) and 40 (*M* age = 16.7), respectively. They also captured outcomes reflecting mental and social health. Staff from the treatment facilities where Play to the Whistle was delivered reported on changes in mental health behavioural symptoms (e.g., internalising and externalising behaviours) at pre- and post-programme time points for participants receiving the programme and those receiving treatment-as-usual (TAU). Findings suggested participants of Play to the Whistle had statistically significant ($p < .01$) reductions in internalising and externalising behaviours, number of restraints and overall mental health behavioural symptoms compared to the TAU group. Findings from the LifeMatters evaluations suggested a significant interaction between groups and time ($p \leq .05$; $\eta^2 \leq .16$) when comparing pre- to post-test changes in relatedness and social anxiety in LifeMatters participants with a control group (McMahon & Hanrahan, 2020).

LifeMatters was delivered in an alternative vocational school; however, four other programmes were delivered in more traditional school settings. An evaluation of Students Run Philly Style – a programme designed to help students achieve running goals and academic success, reported the largest sample size ($N = 330$). Findings indicated participants scored above the midpoint on a five-point Likert scale for self-efficacy ($M = 4.25$, $SD = 0.54$) and for engagement in threatening behaviours ($M = 1.41$, $SD = 0.78$) at the end of the school

year (Inoue et al., 2015). Moreover, students reported having more autonomous motives for running, with an average score of 6.32 (SD = 3.16) on a scale of -12 (amotivation) to 12 (intrinsic motivation) for feelings of self-determination about running. No pre-test or baseline measurements were recorded in the study.

The three other programmes were delivered in schools, the yoga-based Transformative Life Skills, the First Choice Fitness programme, and the physical fitness-based PULSE programme. These three programmes showed heterogeneity across programme designs, statistical analysis, and evaluative measures. The Transformative Life skills programme was evaluated for its impact on pupils' perceptions of stress and self-control in urban high schools (N = 387; M age not provided) and incarcerated young people living in a juvenile residency (N = 75; aged between 16-17[8]). Findings revealed high school participants' stress levels were significantly lower from pre-intervention to midpoint (p = .003), from midpoint to post-intervention (p = .044), and from pre- to post-intervention (p = .002). There were no significant differences in levels of self-control at any of the time points. Paired sample t-tests yielded no significant differences between the intervention and control groups for stress levels or self-control at any of the time points (though it was not clear who was included in the control group). For incarcerated participants, pre-/post-test measures indicated a significant decrease in perceived stress (p = .04) and significant increases in feelings of self-control (p = .02; Ramaboss & Dose, 2010).

Findings from the First Choice Fitness programme (N = 34; M age = 15.5) suggested pre- to post-test improvements in measures of physical fitness, well-being, self-concept, substance use, and social well-being (e.g., relationships with parents). Statistically significant

---

[8] The study authors reported that only 16% of participants stated their age; however, based on other demographic data, the researcher suggested "that the majority of residents were between the ages of 16 and 17 (65%)" (Ramaboss & Dose, 2010).

($p \leq .05$) improvements were reported in number of sit-ups and press-ups completed in one minute, reduction in cigarette use, and self-concept.

The other physical fitness programme, the PULSE programme, was underpinned by the TPSR model (Barker et al., 2016). The programme included participants ($N = 27$; M age 15.5) from schools "located in low-income neighbourhoods and have been reviewed as in need of additional supports due to higher rates of dropout, youth crime and a lack of access to community resources" (Barker et al., 2016; p. 103). Outcomes included leadership, effort, self-coaching, transference, and self-control, which were measured at the end of each session (16 sessions in total) using a four-point Likert scale (e.g., 1= *my effort needs work*, 4 = *my effort is great*). Time series analysis indicated perceptions of transference, effort, and self-coaching fluctuated during the programme, with average scores in the first and last session increasing from 3.1 to 3.8 for transference, 3.2 to 3.8 for effort, and 3 to 3.5 for self-coaching (Barker et al., 2016). Feelings of self-control and leadership also fluctuated; however, average self-control scores dropped from 3.4 to 3 over the course, and leadership was scored 3 out of 4 in the first and last sessions (Barker et al., 2016).

Away from a school setting, two studies reported evaluations of an outdoors-based programme. First, Bowers and colleagues (2019) evaluated the impact of a three-day outdoors camp for participants of colour ($N = 75$; Mage= 16.8) using a questionnaire informed by the five Cs of PYD (Bowers et al., 2010). Statistically significant ($p \leq .011$) improvements were reported for five items, 'challenge myself', 'make friends with others', 'working together with other', 'try my best', and connection to nature. However, 29.3% of participants reported no change for the 'do what is right', 'make good decisions', and 'take responsibility' items (Bowers et al., 2019).

In contrast, Norton and Watt (2014) applied the 40 developmental assets when measuring the impact of the Big City Mountaineers (BCM) programme (hiking- and mentor-

based intervention). Overall, findings suggested participants ($N = 159$; M age $= 16$) reported statistically significant improvements in all eight internal and external assets from pre- to post-test and at 90-day follow-up ($p \leq .001$). However, follow-up data were only provided by "25% to 30% of participants" (Norton & Watt, 2014; p. 343). Moreover, whilst improvements were seen across the sample, there were differences based on sex and ethnicity; significant changes in positive values, empowerment, boundaries and social competency were only observed in males. Additionally, Hispanic participants self-reported significantly greater improvements in external assets, support, empowerment, use of time, boundaries, and social competency ($p \leq .05$) when compared to African-American peers.

Figure 2.4

Mapping PYD Outcomes for Later Adolescents on to Biopsychosocial Model of Health (Lehman et al., 2017)

Biological/ Physical Dynamics

None reported

Psychological Dynamics

Emotional regulation and perceived stress
Mental health (e.g., internalising and
externalising behaviours)
Cognitive and moral functioning (e.g., do the
right thing, decision-making, effort)
Developmental assets (e.g., empowerment,
positive identity)
General self-efficacy

Dynamic Health Behaviours

Autonomous motivation towards running
Attitudes towards a healthy lifestyle
Threatening behaviours
Self-control

Contextual Dynamics

Young people (*M*age = 15.7) with
experiences of complex trauma,
were incarcerated, from low-
income backgrounds, at-risk of
poor life trajectories, or were an
ethnic minority

Social Dynamics

Feelings of relatedness (e.g., in school setting,
making new friends)
Social skills and competence (e.g., teamwork,
leadership)
Developmental assets (e.g., support, constructive
use of time)

**Dynamic health behaviours
were outcomes that perceived
to reflect two or more dynamics
of physical, social, or mental
health.*

95

Emerging Adulthood (20-24 years)

One evaluation included participants considered to be emerging adulthood and was a separate evaluation of the LifeMatters programme (Hanrahan & Ramm, 2015). In total, 19 participants were included with a mean age of 20 years[9] (range = 15-29). The LifeMatters programme involved physically active games and life skills workshops promoting transfer, psychological skills, and self-confidence. The study included measures of life satisfaction, self-perception, a sense of control over one's life, and happiness. Findings indicated positive improvements across all outcome variables. Statistically significant changes in pre- to post-test were reported for happiness (p = .002), life satisfaction (p = .001), physical appearance (p = .010), close friendship (p = .006), behavioural conduct (p = .001), scholastic competence (p = .006), athletic competence (p = .017), social acceptance (p = .004), and global self-worth (p = .004; Hanrahan & Ramm, 2015).

---

[9] This average age was rounded up from a reported mean age of 19.95 years (Hanrahan & Ramm, 2015)

Figure 2.5

Mapping PYD Outcomes for Emerging Adults on to the Biopsychosocial Model of Health (Lehman et al., 2017)

Biological/ Physical Dynamics

Physical appearance

Psychological Dynamics

Happiness
Life satisfaction
Scholastic competence
Control over good and bad events in life
Global self-worth

Dynamic Health Behaviours

Athletic competence
Behavioural conduct
Self-control

Social Dynamics

Close friendship
Social acceptance

Contextual Dynamics

Young people (*M*age = 19.95 years) from Mexico with gang affiliations and at high risk of violence, drug addiction, and delinquency.

*Dynamic health behaviours were outcomes that perceived to reflect two or more dynamics of physical, social, or mental health.

Discussion

This review aimed to systematically synthesise quantitative evidence for the application of physical activity-based PYD interventions in socially disadvantaged young people across different developmental stages and from a health perspective. The theoretical underpinning for the synthesis was informed by Holt et al.'s (2017) sport-based model of PYD. Given the social disadvantage nature of participants, PYD programmes included in the review had to meet at least one of Eccles and Gootman's (2002) eight features for community-based PYD programmes. The assimilation of outcomes was guided by the biopsychosocial model of health (Lehman et al., 2017) and guidelines for developmental stages during adolescence (early, 10-14 years; late 15-19 years) and emerging adulthood (20-24 years). The novel insights this review attempted to explore were investigating a broader range of physical activity-based settings (e.g., the outdoors, fitness, yoga) in PYD programmes, understanding the impact of these programmes on socially disadvantaged young people based on different developmental stages, and mapping PYD outcomes onto a model of health. This discussion section will delineate the extent to which we can glean new insights from the novel lines of inquiry explored. First, a brief summary of the findings from this review is outlined and considered.

A total of 24 articles met the inclusion criteria, with 16 studies including young people in early adolescence, seven in late adolescence, and one in emerging adulthood. Overall, there was a medium-to-high risk of bias across the included articles, with only three RCTs reported. When mapping PYD outcomes on to the biopsychosocial model of health, outcomes most closely reflected mental and social dynamics of health; however, it was apparent that many outcomes reflected two or more dynamics of health interacting, described as, dynamic health behaviours (Lehman et al., 2017). For example, the most commonly reported outcome, self-control (measured in six different studies), was a behavioural outcome

that reflected cognitive ability, physical restraint, and social awareness. Although self-control was the most commonly reported outcome, the strongest evidence across articles was for positive short-term (i.e., pre- to post-test) benefits in mental and social health outcomes. Improvements in mental and social health outcomes were commonly reported in early adolescents taking part in sports-based programmes that followed a camp format (i.e., four-five weeks, five days/ week, four-six hours/per programme day). The weakest evidence was for the impact of programmes was on physical health, with five studies including physical health-related measures and a pattern of small or no changes observed as a result of the programme. The most under-researched age group was emerging adulthood (one study; Hanrahan & Ramm, 2015). The discussion section explores how findings from this review can contribute to PYD programmes in a range of physical activity domains, the potential benefits for socially disadvantaged young people, and the implications of mapping PYD outcomes onto a model of health.

Investigating a Broader Range of Physical Activity-based Settings

Physical activity contexts were split into six different groups, sport ($n = 9$), physical fitness ($n = 5$), outdoor activities ($n = 3$), running ($n = 2$), yoga ($n = 2$), and physically active games ($n = 2$). Given that research already acknowledges the positive influence of sport-based PYD programmes in disadvantaged groups (reviews include Hermens et al., 2017; Whitley et al., 2018), the present review aimed to build on existing evidence to suggest other settings can be influential in promoting healthy developmental outcomes (Lubans et al., 2012). For example, evaluations of the Transformative Life Skills programme included in the review demonstrated how mindfulness practices in yoga could facilitate improvements in emotional well-being and regulation (e.g., adaptive response to stress; Frank et al., 2016; Ramadoss & Bose, 2013). In recognising that posttraumatic stress at a young age can result in mental health disparities (Cook et al., 2005; Tong et al., 2019), yoga-based practices may be

an alternative physical activity modality to promote coping responses and mitigate mental

health issues (Kerekes, 2021; Spinazzola et al., 2011; Stephens, 2019). More broadly, in a

study of collegiate athletes, the use of mindfulness practices was found to enhance sporting

performance and well-being outcomes compared to sport psychology practices alone (Gross

et al., 2018).

On the other hand, research has also shown that mindfulness practices be challenging

for people with experiences of trauma (Follette & Pistorello, 2007). Alternatively, outdoor

settings or physically active games could be viable settings for PYD programmes for socially

disadvantaged young people. The advantage of using the outdoors and physically active

games is their propensity for facilitating experiential learning opportunities (Dieleman &

Huisingh, 2006; Sibthorp et al., 2015). Although sport-based programmes also promote

experiential learning, research suggests socially disadvantaged young people can face

financial and psychological (e.g., low self-esteem) barriers to engaging in organised sport

(Holt et al., 2011; Quarmby & Pickering, 2016; Somerset & Hoare, 2018). Evaluations of the

LifeMatters programme suggest physically active games that emphasise team-based activities

can promote positive changes in a range of outcomes that reflect adaptive biopsychosocial

health for young people in late adolescence and emerging adulthood experiencing complex

support needs (Hanrahan & Ramm, 2015; McMahon & Hanrahan, 2020). The team-based

approach to physically active games was closely mirrored in outdoor-based activities

included in an outdoor adventure camp, which promoted psychosocial skills in late

adolescents (Bowers et al., 2019). Other outdoor programmes utilised expeditions and

focused on mentoring (Bowen & Neil, 2016; Norton & Watt, 2014), one of which cited

experiential learning theory as a key framework and demonstrated the capacity to promote

positive changes in mental health in six-month follow-up measures (Bowen & Neil, 2016). In

comparison to evaluations of other physical activity domains (i.e., fitness- and running-based

programmes), studies measuring the effects of outdoors and physically-active modalities were more rigorous and indicated stronger effects.

To conclude this section on physical activity settings, it is worth noting that the heterogeneity across programme characteristics (e.g.., length of the programme, amount of time engaged in physical activity) makes it difficult to draw conclusions about the appropriate *dosage* of physical activity (i.e., how much and how intense) to elicit positive outcomes. Instead, what seems more influential is the presence of a structured life skills component, described as an explicit pathway to PYD outcomes in Holt et al.'s (2017) model of sport-based programmes. For example, the Box'Tag® programme, which had the least time dedicated to life and psychosocial skill development, reported small to no changes in emotional well-being and school engagement in a matched-pairs study design (Terry et al., 2014). Comparatively, evaluations capturing similar outcomes from programmes with structured life skills workshops and curriculums reported statistically significant positive effects (Frank et al., 2016; Mala et al., 2020). Findings from the present review corroborate findings underscore the value of life skills components to promote positive developmental and health outcomes in physical activity-based PYD programmes (Hermens et al., 2017; Holt et al., 2017).

Socially Disadvantaged Young People and Different Developmental Stages

Across multiple studies, a trend of positive findings for improvements in indicators of mental and social health challenges the notion that young people with lower levels of risk or disadvantage may benefit more from PYD programmes (not specifically physical activity-based) with regards to psychological adjustment, school attainment and engagement, emotional well-being and behavioural conduct (Ciocanel et al., 2017). While findings from the narrative synthesis are not directly comparable or as reliable as the findings from the meta-analysis of RCTs conducted by Ciocanel et al. (2017), the RCTs included in the current

101

synthesis reported positive intervention effects when compared to controls not receiving the programme (D'Andrea et al., 2013; Frank et al., 2017; McMahon & Hanrahan, 2020).

The present review highlights a predominance of evaluations, including young people in early adolescence, which corroborates with average ages of similar reviews targeting socially disadvantaged young people (Hermens et al., 2017; Lubans et al., 2012). However, in differentiating between developmental stages, the present study can highlight potential differences in programme design and desired outcomes depending on age. For example, trends in the data that suggested school-based programmes ($n = 6$) for early and late adolescents were effective in promoting social outcomes related to school engagement and connectedness, social responsibility, and social skills. Enhancing a sense of belonging in schools at a young age is likely to support socially disadvantaged young people to remain in school longer (Pendergast, et al., 2018), experience higher levels of emotional well-being (Arslan, 2018), and act as a protective factor against substance use (Napoli et al., 2003). Although it is not clear how physical activity influenced school-based outcomes, it could be interpreted that the close proximity of the school and the physical activity-based programmes (i.e., after-school programmes on the school premises) more readily facilitate the transfer of life skills between settings (Spaaij, 2012; Pierce et al., 2017). Future research that explores mechanisms of transfer of life skills from physical activity to other domains in socially disadvantaged young people would advance applied implications for social impact (i.e., programmes targeting socially excluded young people; Spaaij, 2012; Collins & Haudenhuyse, 2015).

Programmes for older adolescents and emerging adults demonstrated how community- and service-based programmes[10] could lead to positive changes in mental and

---

[10] Juvenile detention centre (Hanrahan & Ramm, 2015); residential treatment facility for mental health (D'Andrea et al., 2013); alternative vocational school (McMahon & Hanrahan, 2020).

social health-related outcomes such as self-control, life satisfaction, social anxiety, behavioural conduct, self-worth and connectedness. For older adolescents and emerging adults who are disconnected from schools or family units, there may be advantages to working collaboratively with services to provide programmes that are sensitive to participants' needs (e.g., trauma-informed care; D'Andrea et al., 2013) and build a greater sense of connection with local communities (Spaaij, 2012). A review of sport for development research underscored the need for future research to conduct theory-informed evaluations of programmes to produce findings that can contribute to theories of changes for how sport, and, more generally, physical activity, can be mobilised to address health and social inequalities for young people facing social disadvantage (Whitley et al., 2018).

Additionally, research points to the need for programmes with older groups to have a greater focus on skill development for independent living and workplace settings (Eccles & Gootman, 2002; Homeless Link, 2018); however, these outcomes were not directly targeted by studies in the review. Instead, the role of PYD programmes may be to address skill, health, and well-being disparities that act as barriers to thriving in early adulthood; exemplified in the manifestation of mental health issues and poor self-regulation capacity resulting from childhood social disadvantage (Cook et al., 2005; Evans & Cassarells, 2014; Lee et al., 2018). The idea of programmes addressing health and well-being disparities was reflected in the LifeMatters programme, which was the only programme to capture emerging adults. LifeMatters was delivered to two samples with average ages of 16.7 and 20 years and addressed issues related to social anxiety, low self-worth, life satisfaction, and physical appearance in groups that have struggled to integrate with educational settings (McMahon & Hanrahan 2020) and social norms (i.e., former gang members, Hanrahan & Ramm, 2015). The limited evidence of physical activity-based PYD programmes for emerging adults highlights the need for additional research in this age group.

Mapping PYD Outcomes on to the Biopsychosocial Model of Health

In comparison to a mixed-methods review of life skill development through sport for socially vulnerable youth (Hermens et al., 2017), the health-based perspective in the current review facilitates different perspectives to be taken when examining similar research[11]. Through the lens of the biopsychosocial model, it is clear that participants are experiencing improvements in psychosocial skills *and* psychological qualities. As outlined in Chapter 1 (p. XX), skills and qualities are differentiated as the ability to regulate one's mental state (skills) and an enduring mental state achieved through the effective and consistent use of skills (qualities; Holland et al., 2010; 2018). The difference between skills are qualities is also exemplified in the five Cs of PYD model; for example, caring, connection, confidence, and character reflect psychosocial qualities, while competence is more closely linked to skill development (Bowers et al., 2010). With regards to benefits for socially disadvantaged young people of all ages, programmes that provide resources to develop psychosocial skills may mitigate neurocognitive disparities linked to experiences of trauma, such as a reduced capacity for effective intentional self-regulation (Cook et al., 2005; Napolitano et al., 2011). Furthermore, the development of qualities exemplified in global self-worth, resilience, confidence, and well-being in the present review suggests that psychosocial health outcomes can extend beyond situational contexts and promote longer-term benefits. However, additional longer-term evidence is needed, as only five of the included articles provided follow-up measures.

In outlining how the biopsychosocial model of heath explains health as a dynamic concept in young people, Lehman and colleagues (2017) provide examples of health-related behaviours that occur between different dynamics. For example, impulse control in social

---

[11] The present review and the review by Hermens et al. (2017) included four of the same studies, these studies were, Anderson-Butcher et al., 2014; D'Andrea et al., 2013; Terry et al., 2014; Ullrich-French et al., 2012.

situations can be linked to physical and social dynamics, whereas substance abuse demonstrates a link between physical and mental health issues and is also linked to social conditions (e.g., peer or community influence; Lehmen et al., 2017). In the present review, outcomes that reflected dynamic health behaviours (i.e., interaction of two or more dynamics of health) were an indication of how programmes targeted physical health disparities in socially disadvantaged young people. For instance, physical health outcomes along (i.e., not reflecting an interaction with another dynamic of health) were captured in five studies through performances in physical tests, activity levels, and markers of body fat percentage. Findings across physical health outcomes were inconclusive. However, a trend of positive short-term effects (i.e., pre- to post-test measures) was observed across 11 articles reporting outcomes that reflected an interaction between two or more dynamics of health; these outcomes were self-control, responses to stress, substance use, healthy risk-taking, sport and physical competence, autonomous motivations towards running, and attitudes towards a healthy lifestyle.

The disparity in the number of outcomes and positive findings reported for physical health outcomes and psychosocial dynamics health suggests programmes were more effective at addressing underlying motivations and attitudes towards physical activity as opposed to increasing participants' physical activity levels. Although insufficient longer-term evidence was provided, research underpinned by self-determination theory (SDT) suggests people with more autonomous motives toward physical activity are likely to sustain their engagement after interventions have finished (Daley & Duda, 2006; Silva et al., 2010). Moreover, higher levels of perceived competence are linked with greater enjoyment of physical activity (Timo et al., 2016). Therefore, PYD frameworks in physical activity interventions may help promote changes in motivations and competencies that can underpin healthy lifestyle choices in socially disadvantaged young people.

Strengths and Limitations of the Review

The included articles scored low on the JBI critical appraisal tools, suggesting a greater risk of bias in findings and reducing the external validity of the overall findings of the synthesis. However, these scores should be interpreted within the context of the research. For example, ethical considerations of working with disadvantaged populations can conflict with many standards of typical quantitative studies (e.g., not providing effective treatment for the means of having a standardised control group; Brady & O'Regan, 2009). Moreover, the heterogeneous nature of disadvantaged young people can make achieving homogenous baseline scores difficult (Tomlinson et al., 2015). To counterbalance the risk of bias, the review adopted recognised guidelines and models, as well as collaborative decision-making across an experienced team of researchers, to ensure the review process was rigorous and systematic.

Additionally, the review strategy presented some limitations. It is possible the search criteria for physical activity were too narrow, resulting in programmes that included physical activity but did not use terminology that was included in key terms for search criteria may have been missed. Moreover, it is possible that excluding grey literature meant applied programmes were missed. A similar review by Whitley et al. (2018) reported that a lot of research evaluating sport for development programmes was included in grey literature.

It should also be acknowledged that the included studies were conducted in western societies, therefore, capturing a relatively narrow depiction of *disadvantaged*. Research in other countries and cultures would serve to expand assumptions and understandings of how a broader range of young people can benefit from these programmes. Within western cultures, future research would benefit from expanding the reach of interventions to include some of the most disadvantaged in society (e.g., youth homelessness; Lerner et al., 2014).

No previous reviews have mapped the outcomes of these interventions on a model of health, which makes adopting this approach in the present review both a strength and a limitation. As many of the included studies were not informed by models of health (and, more specifically, the biopsychosocial model), it was left to the review team's interpretation of how outcomes should be categorised; therefore, limiting the objectivity of the synthesis process. In light of this, the biopsychosocial model could be applied to develop a set of core outcomes for measuring the effectiveness of physical activity-based PYD programmes in improving the health of participants (Williamson et al., 2012). This would ensure consistency in reported outcomes across studies, provide clarity on the impact of these programmes on health inequalities in disadvantaged groups, and facilitate meta-analyses being conducted in the future. The resulting evidence would provide practitioners and policymakers with rigorous research outcomes they can use to draw more reliable conclusions regarding the effectiveness of interventions. The model can also be applied to understand how PYD and health interact over time as dynamic and evolving concepts (Lehman et al., 2017); to further understandin this perspective, studies could investigate how indicators of PYD (e.g., the five Cs, Bowers et al., 2010) may relate to biopsychosocial health outcomes.

Conclusion

This review provides evidence to suggest physical activity-based PYD programmes can be an effective strategy for tackling a range of health disparities faced by socially disadvantaged young people. The strongest evidence was reflected in a trend of positive pre- to post-test outcomes on indicators of mental and social health in early and late adolescence. While follow-up evidence was also generally positive, it was limited. Additionally, findings from the review should be interpreted with caution due to the medium-to-high risk of bias in the included articles. Nonetheless, the review addressed the need for a systematic review of quantitative evidence (Holt et al., 2017) and provided an up-to-date review of literature

pertaining to the impact of a range of physical activity-based settings on developmental outcomes in socially disadvantaged young people (Lubans et al., 2012). Moreover, the review explored three novel lines of inquiry from which insights gleaned can lead to tentative recommendations and avenues for future research (Table 2.3).

Table 2.4.

Summary of Novel Lines of Inquiry, Recommendations, and Avenues for Future Research as a Result of This Review

Novel line of inquiry	Recommendations	Future research
Investigate a broader range of physical activity-based settings (e.g., the outdoors, fitness, yoga) in PYD programmes	• Physically active games and outdoor activities can be utilised as alternative settings to sport to promote psychosocial skill development and well-being outcomes. • Yoga-based practices may be an effective approach to facilitating emotional regulation and well-being; this could be very effective in groups with experiences of trauma but should be participant-led as not all people with experiences of trauma engage well with mindfulness practices like yoga. • Sport settings are an effective modality for promoting psychosocial skills.	• Further exploration of outdoors setting, physically active games, and yoga-based programmes to understand how these modalities can be implemented as a viable alternative to sport. • Understanding the role of different exercise settings in health benefits; for example, to what extent can outdoors settings offer mental health benefits? Or how can physically active games and yoga-based programmes incorporate physical health benefits?
Understanding the impact of programmes for socially disadvantaged young people based on different	• In younger adolescents, aiming to promote a sense of belonging in school settings and targeting psychosocial skills (e.g., communication skills) *and*	• Continuing to explore the impact of programmes on a broader range of social disadvantages (i.e., in different cultures). • Exploring how the PYD outcomes may be different

developmental stages	qualities (e.g., confidence, resilience). • In older adolescents and emerging adults, collaborating with targeted services to provide appropriate support (e.g., trauma-informed care) and building a stronger sense of connection with communities. Programmes should target psychosocial skills and qualities that may act as barriers to thriving in early adulthood (e.g., self-perceptions, self-regulation).	across different developmental stages, specifically emerging adults, which is an underrepresented age group in the literature. • Review research would benefit from more clearly defining different developmental stages when capturing broad age ranges.
Mapping PYD outcomes onto a model of health.	• PYD outcomes help to elucidate the complex and dynamic health status of young people; by utilising PYD frameworks and models of health, programmes can target developmentally appropriate outcomes that can impact adolescent health disparities.	• Future evaluations of PYD programmes could benefit from mapping outcomes onto a model of health to highlight potential health benefits (such as addressing health disparities in socially disadvantaged groups). • Longer-term studies can identify the extent to which programmes are effective in promoting sustained health outcomes; this may be particularly pertinent in physical health. • Research that can produce process models to explain how PYD outcomes influence health outcomes.

In relation to the present thesis, the extent to which the studies of MST4Life™ can be informed by findings from this review is limited due to the quantitative research synthesised

in this chapter and the qualitative nature of the studies in Chapters 4 and 5. However, there are some general gaps in the knowledge base that the thesis can address. First, the dearth of evidence for physical activity-based programmes in emerging adults is present across quantitative and qualitative evidence (Hermens et al., 2017; Lubans et al., 2012; Whitley et al., 2018). Therefore, investigating how young people from St Basils (16-24 years) experience the MST4Life™ programme, and specifically, the OAE course, offers academic merit. Further, points raised in the discussion of this chapter highlight how programmes like MST4Life™ may play a role in changes in attitudes and motivation for sustained health benefits. Investigating how MST4Life™ may positively influence changes in attitude and motivations would provide valuable insights into the potential mechanisms of the programme that can address health inequalities for young people experiencing homelessness. Finally, findings from this review corroborate evidence from qualitative reviews that young people experiencing homelessness are not represented in PYD research (Ciocanel et al., 2017; Hermens et al., 2017). Not only does this demonstrate the originality of the studies conducted in the present thesis, but it also indicates the benefits of collecting qualitative data to explore applications of PYD frameworks (such as the five Cs model; Roth-Brooks & Gunn, 2003) in a novel population.

Introduction

Positionality can be understood as one's world and political views and relative status in a particular social hierarchy or context and how these constructs influence the position one adopts in a particular research context (Gary & Holmes, 2020; Savin-Baden & Major, 2013; Rowe, 2014). Moreover, the role of reflexivity is to engage in the process of self-reflection to critically think about how one's positionality influences their engagement with research context, process and output (Gary & Holmes, 2020). When writing a reflexive statement of positionality, important considerations include stating one's scientific paradigm and philosophical beliefs, a detailed description of the research context, and a reflection of how the researcher may have influenced the research process (Savin-Baden & Major, 2013). The purpose of this chapter is to provide a reflexive consideration of my positionality while conducting applied research with St Basils. This chapter comprises three sub-sections: research philosophy and paradigms, positionality in the research context, and researcher role and influence on the research.

Research Philosophy and Paradigms

A research paradigm can be described as an "organising structure" in which researchers ground their "philosophical position relating to the nature of social phenomena and social structures" (p.7, Feilzer, 2010). Traditionally, paradigms are characterised by ontological, epistemological and methodological assumptions and methods implemented (Denzin & Lincoln, 2000; Guba & Lincoln, 1994). Guiding both the philosophy and practicalities of research, fields of study will typically align with a particular paradigmatic stance, from which researchers draw a "consensus about which questions are most

111

meaningful and which methods are most appropriate for answering those questions" (p. 53, Morgan, 2007). Four main paradigms have been proposed, from which discussions regarding research philosophy and process permeate: positivism, interpretivism, pragmatism, and the transformative paradigm (Mackenzie & Knipe, 2006). From these four paradigms, positivism and interpretivism are the most traditional, each holding opposing views of how reality is defined (i.e., ontology; Crotty, 1998) and how knowledge is perceived to reflect our reality (i.e., epistemology; Guba & Lincoln, 1994).

Traditional paradigms of positivism and interpretivism have been conceived to "constrain intellectual curiosity and creativity" (Feilzer, 2010, p. 8) by imposing a "forced choice dichotomy between [positivism] and constructivism'' (p. 27, Creswell et al., 2007). It is possible researchers in both camps will apply methodological approaches that uphold their epistemological or ontological assumptions, as opposed to being guided by the research context or question(s) (Morgan, 2014). Consequently, traditional paradigms may not be a good fit for community-based research, which often requires researchers to be more flexible when using methods to meet community members' needs (Israel, 1998; see Chapter 1). Alternative paradigms of pragmatism and the transformative paradigm have been proposed as suitable approaches for community-based research (Mertens, 2007; Morgan, 2014; Romm, 2014).

Pragmatism has been described as a "radical departure from age-old philosophical arguments about the nature of reality and the possibility of truth" (p.1049; Morgan, 2014). While positivism and interpretivism contend that reality is an objective or subjective concept, respectively, pragmatism views reality as a combination of both. Through a pragmatic lens, reality comprises multiple layers made up of subjective and objective elements, contributing to a world that is complex, contradictory and constantly evolving (Dewey, 1925, 2008). From this perspective, pragmatists are "anti-dualists" (Rorty, 1999, p. ixx;); that is, rather than

112

taking a stance in the dichotomous debate between positivism and interpretivism, pragmatists seek convergence between quantitative and qualitative research methods, acknowledging the commonalities between the two (Hanson, 2008; Johnson & Onwuegbuzie, 2004). As a result, pragmatism adheres to a different scientific line of inquiry compared to positivism and interpretivism, which both share an approach to seeking truth and corresponding it with reality (Dewy, 1925, 2008; Rorty, 1999). In contrast, pragmatism takes an "antirepresentational view of knowledge" (p. xxvi; Rorty, 1999), advocating that research should strive towards utility and solving real-world problems over seeking an accurate representation of reality (Dewey, 1925; Creswell et al., 2007).

From a notion of practical implications and methodological utility, pragmatism can sometimes be seen as an 'apply what works' approach (Howe, 1988; Morgan, 2014). This perception of pragmatism would suggest it is nonparadigmatic (e.g., Teddlie & Tashakkori, 2009). However, as outlined above, pragmatism is deeply rooted in philosophical perceptions of reality, such as Dewey's experiential perceptions of reality and the importance of human experience (for an overview of Deweyan pragmatism, see Morgan, 2014). Through this lens, pragmatism encourages researchers to consider their role in developing research questions, collecting data and interpreting findings (Feilzer, 2010; Fishman, 1978). When utilised in this way, pragmatism invites a broader conceptualisation of utility that evolves beyond applying the most appropriate tools and invites researcher reflexivity (Feilzer, 2010).

A reflexive approach to pragmatism has been described by Romm (2014) as "constructivist-oriented epistemological pragmatism" (p.137). Romm (2010) suggests that pragmatists should be discursively accountable for their role in data collection and interpretation, particularly when using qualitative data; this is an important consideration for the qualitative evaluations of MST4Life™ in the present thesis. Through a discursive and reflexive orientation, pragmatists can build trust in their research findings by acknowledging

113

the influence of their personal views and stakeholders' perspectives in the research process. Stakeholders' perspectives are a valuable asset for measuring the effectiveness of pragmatic research in line with the paradigm's values of finding solutions to real-world problems (Feilzer, 2010). Given the involvement of multiple stakeholders in Chapter 4, pragmatism provides a suitable framework for guiding the community-informed, qualitative nature of research in this thesis (Bruce & Bloch, 2013).

Bruce and Bloch (2013) provide evidence for applying pragmatism in educational research and pedagogical theories, such as experiential learning theory (Kolb, 1994). Given that experiential learning theory underpins the MST4Life™ delivery style and also the perception of reality in pragmatism (Dewey, 1925, 2008), there is suitable theoretical and paradigmatic compatibility when utilising pragmatism as an overarching paradigm for the present thesis. When investigating the experiential components of MST4Life™ in Chapters 4 and 5, taking a pragmatic philosophical lens underscores the value of qualitative research in understanding how participants *experience* experiential learning in MST4Life™. Placing emphasis and value on understanding unique aspects of human experience tethers the present thesis with experiential elements of pragmatism and the social injustices of youth homelessness (Kaushik & Walsh, 2019; Watson & Cuervo, 2017).

However, pragmatism is not the only paradigm that advocates understanding human experience in light of real-world issues. The transformative paradigm is a paradigm that provides a scientific philosophy that centres on understanding and tackling social inequalities (Mertens, 1999, 2007). Mertens (2007) exemplifies the influential role of social hierarchies when outlining the key ontological beliefs of the transformative paradigm:

There are multiple realities that are socially constructed, but it is necessary to be explicit about the social, political, cultural, economic, ethnic, racial, gender, age, and

114

disability values that define realities. Different realities can emerge because different levels of unearned privilege are associated with characteristics of participants and researchers. Transformative researchers need to be aware of societal values and privileges in determining the reality that holds potential for social transformation and increased social justice. (p. 216).

Both pragmatism and the transformative paradigm place a strong emphasis on the human experience when defining reality; however, it is a critical awareness of how social structures impact the lives of marginalised groups that underpins a social justice approach that makes the transformative paradigm an equally influential paradigm for the CBPR-informed nature of the present thesis (Mertens, 2007, 2010).

From an epistemological perspective, transformative research recognises that one's ascribed qualities (such as race and gender) can assert (or diminish) perceptions of privilege, which are reinforced by deep-rooted social hierarchies, and, ultimately, social inequalities (Mertens, 2010). Recognising society's complexities and inequalities, the transformative paradigm advocates community participation in understanding socially constructed knowledge (Mertens, 2010). Community participation is seen as a prerequisite when developing knowledge within a transformative framework, demonstrated in MST4Life™ through CBPR principles guiding the research process (see Table 1.1 in Chapter 1; additionally, see Cumming et al., 2021a). Although a participatory approach has been advocated in community inquiry through pragmatism (Bruce & Bloche, 2013), the transformative paradigm also emphasises building community research partnerships (Romm, 2014). For instance, it is the transformative researcher's role to build trust with the community and ensure community members have an active role in the planning, implementing, and evaluating of a research project (Mertens, 2007). Building trust was exemplified in MST4Life™ through knowledge exchange practices and discourse (Cumming

et al., 2015) and the PI of the research project completing a six-month secondment in St

Basils (Cumming et al., 2021a).

Building trust through constructive links with the community also breaks down power

dynamics, helping to forge more equitable social relationships and knowledge translation

(Mertens, 2010). Transformative researchers, like pragmatists, are acutely aware of their role

in the research process, underscoring the researcher's responsibility to reflexively

acknowledge their role within the community and wider society when conducting research

and interpreting findings (Romm, 2014). In the present thesis, including stakeholders in

evaluations of the programme (e.g., St Basils staff and OAE instructors) contributed to

achieving inclusion goals across the MST4Life™ research partnership (Cumming et al.,

2021a).

In being guided by the community, the transformative paradigm takes a participatory

approach when implementing methods. Such an approach is typified by mixed methods

research in a cyclical model that facilitates community participation across all levels of the

research process (Mertens, 2007). In adhering to these principles, transformative and

pragmatic research share a view of scientific explanation being provisional; that is, a solution

(or the proposed knowledge acquired from the inquiry) may only stand to be effective (or

'true') for the community or individual for a certain period of time (Brendel, 2004). If the

community's financial, social or physical realities change, a new solution may need to be

explored, and thus, the cycle of research continues. Furthermore, the transformative paradigm

is more explicitly a culturally sensitive participatory approach, calling for researchers to draw

on insights from a range of community members to understand the most appropriate methods

to assist with the inquiry (Mertens, 2007). A culturally sensitive approach is pertinent when

evaluating MST4Life™ when aiming to engage socially excluded young people in the

research process (Conolly, 2008). Methods used in the present thesis were informed by

stakeholder consultations and pilot testing to understand the feasibility of different methods for evaluation (Cumming et al., 2015, 2021a, 2021b).

When working with young people experiencing homelessness, both pragmatism and the transformative paradigm offer value to the present thesis. Combining two paradigms to inform a singular body of work is a relatively novel concept. However, given how pragmatism and the transformative paradigm align on core values of an anti-dualist approach when conducting research, there is permeability between these paradigms (Mertens, 2010; Romm, 2014). An anti-dualist view stems from a converging perception that reality is complex and shaped by human experience; therefore, researchers from both paradigms adopt a stance that methods should be applied based on their suitability to answer the research question. The two paradigms also have a similar ethos of conducting research to bring about practical and meaningful change. In an applied example, Romm (2014) outlines 'transformative research with a pragmatist twist' (p.140), exemplified in community-based research in South Africa that aimed to address social injustices while also striving to find practical solutions through participatory approaches (Romm et al., 2013). Moreover, as both pragmatism and the transformative paradigm see value in the social construction of knowledge, qualitative methods can be applied when conducting research informed by these paradigms (Goldkhul, 2012; Romm, 2014).

In sum, the philosophical and epistemological affinity between pragmatism and the transformative paradigm supports applying these paradigms to underpin research conducted in the present thesis. Additionally, both are appropriate paradigms to reflect the broader aims of the MST4Life™ research project, such as finding practical solutions to real-world issues associated with youth homelessness and conducting research in pursuit of social justice (Cumming et al., 2021a). Moreover, pragmatism and the transformative paradigm demonstrate methodological coherence with qualitative research methods used in the present

thesis, reflected in both paradigms through the importance of understanding human experience. In line with recommendations from both paradigms (Romm, 2010, 2014; Mertens, 2007), the following section will provide a reflexive consideration of my positionality in the research context.

Positionality in the Research Context

In applied research, the researcher and the participants occupy and co-construct a shared space (England, 1994). In doing so, each brings their own sense of identity to the research process, which will influence power dynamics and ultimately shape how a programme or intervention is implemented (Bourke, 2014). Muhammad and colleagues (2015) commented, "research positionality encompasses both societal ascribed and achieved identities that confer status on an individual researcher, such as race/ethnicity, or level of education attained" (p.1051). Therefore, a researcher brings certain qualities that can influence if they are perceived as an 'insider' or 'outsider' (Muhammad et al., 2015).

Longstanding views on the insider-outsider discussion propose that a researcher can only achieve insider status if they are a member of the specified group or community; non-members are, by virtue, outsiders and can do little to change this (Merton, 1972). Recent research has taken a less dichotomous stance, suggesting a researcher's insider or outsider status is a relative concept, and social dynamics within research (e.g., building rapport and trust) can influence how a researcher is perceived by participants (Dwyer & Buckle, 2009). From this perspective, Dwyer & Buckle (2009) propose researchers can occupy 'the space between' insider and outsider status; that is, a researcher can, and likely will, move along an insider-outsider continuum throughout the research process. For instance, a study exploring processes of building trust in a community-based research partnership found initial feelings of mistrust when researchers were perceived as outsiders were dispelled over time through

collaborative working strategies and researchers demonstrating their commitment to the community (Jagosh et al., 2015).

This conceptualisation of changing social dynamics and 'the space between' resonated with my experiences of conducting research with St Basils. Having never experienced or worked in homelessness, I could never truly have insider status with young people or staff, respectively. However, the social dynamics of implementing and evaluating MST4Life™ presented opportunities to build trust, show compassion, and establish meaningful relationships with participants. For example, in formal and informal conversations with staff and young people, I was able to share my passion for the research and learn more about youth homelessness, conveying genuine care and interest for the social cause of St Basils as an organisation (i.e., ending youth homelessness) and the people within it aiming to make a difference in the lives of young people. Given my relative outsider status from the outset, I saw each social interaction as an opportunity to learn more about the community of St Basils and build my cultural awareness. Subsequently, I was able to utilise some of the advantages of being an outsider. For instance, as relationships grew, particularly with staff, I felt comfortable asking questions I didn't know the answer to, such as details about the service or their experience of working with young people. Due to my outsider status, I received answers that did not assume my prior knowledge but instead were detailed and enriched my understanding of the research context (Darwin-Holmes, 2020).

When conducting research with St Basils, I was acutely aware of the ascribed and achieved qualities that may influence how others perceived me. Nonetheless, I acknowledge this reflection is a construct of my own beliefs, as I cannot fully know how I am perceived (Savin-Baden & Major, 2013). Some ascribed qualities I inherently brought to my role as a researcher included being male, white, middle class and heterosexual. Researching with a community that was predominantly comprised of people with mixed ethnicity, typically from

lower socioeconomic backgrounds, and a disproportionate representation of individuals from the LGBTQ+ community, I was initially likely to be perceived as an 'outsider'. Furthermore, in a group typically disengaged from education, my achieved educational qualities (e.g., degree and aspiring doctorate) may have affirmed my outsider status. However, my age (24-25 at the time research was conducted) was an ascribed quality that granted me a degree of acceptance. Young people from St Basils often spoke about how they found older support workers difficult to relate with; however, they perceived the other researchers and I as more relatable due to being closer in age. For example, when asked about the style and approach of the facilitators, one participant commented:

> better than a St Basil's worker because you've got the authority that you're not just someone that's been brought in off the street to come do a course to get paid… But, you're also students and then you're still kinda on the same age and same wave length, rather than going home to your Mrs and your kids after, you still got our kinda life style, that helps because we can kinda relate to that and it's like a role model rather than.

While ascribed qualities may appear superficial in nature, they can have a strong influence on one's position in the research context and relational dynamics between a researcher and those within a research context (Muhammad et al., 2015). With that being said, it is not helpful to allow these ascribed qualities to define who we are and how we act. Particularly with how we act, there are additional and intentional steps that can be taken that transgress insider vs outsider status and reflect more deeply the uniqueness of the community and people one is working with. When researching within St Basils, understanding more about psychologically informed environments (PIE) and having the support of an experienced and informed research team helped me develop the required skills to navigate the complexities of conducting community-based research with intention.

One of the benefits of PIE training were to further enrich my understanding of the complex support needs that can manifest as a result of unresolved trauma in childhood and adolescence. The training taught me to identify behaviours that can be understood as maladaptive coping mechanisms; for instance, not engaging with a programme or member of staff may be an example of avoidance behaviour, or a higher drop-off rate towards the end of programmes could reflect abandonment issues. In addition to better understanding, the training also helped me understand the roles of the staff better through informal conversations and the training identifying the challenges staff face. The training provided valuable resources, learning experience, and social interactions to broaden my skill set and awareness of the St Basils community (including young people and staff).

PIE training and guidance from fellow researchers helped me navigate the complex processes of conducting community-based research with vulnerable young people. A recent review highlights how building respectful relationships with young people who have experienced trauma can help participants feel valued and promote a sense of agency in the research process. (Bradbury-Jones et al., 2018). Furthermore, community-based PYD guidelines for creating positive-adult youth relationships centre on the importance of clear boundaries and expectations to support positive developmental outcomes (Eccles & Gootman, 2002). Being mindful of establishing respectful relationships with clear boundaries was a pertinent consideration when working with young people in St Basils. Research suggests young people experiencing homelessness can find it difficult to form healthy social connections due to a prevalence of unhealthy relationships with adults and peers in childhood and adolescence (Rokach, 2005). To help establish positive relationships with participants, MST4Life™ programmes started with collectively agreed-upon ground rules, which underscored the importance of respect and boundaries. Additionally, the research team and I had reflective practice with the housing services' clinical psychologist (approximately once a

121

month), which provided additional support if any issues around boundaries or challenging behaviours arose.

In sum, I believe there were some inescapable qualities and experiences that inherently made me an outsider in the St Basils community; however, on reflection, this was not necessarily a bad thing. Having time to observe the programme and participants and learning from formal training and other MST4Life™ facilitators, I feel I developed the required skills to navigate the research context with awareness, sensitivity, and curiosity in a constant and evolving learning process (Figure 3.1). I am also acutely aware that the applied nature of the research and my role in MST4Life™ will have influenced research processes and outcomes. For example, the relationships I formed and my evolving role in the research project over the duration of my PhD are two indicators of my potential influence on the research (Savin-Badin & Major, 2013). The following section will provide a more in-depth reflection of my potential influences on the research.

Figure 3.1.

Summary of Factors That Influenced my Perception of Insider and Outsider Status in the

Research Context (i.e., St Basils)

Ascribed qualities	Achieved qualities
1. Male 2. White 3. Heterosexual 4. Middle class	• No experience with homelessness • High education credentials

Outsider status

'The space between'

Insider status

- Building cultural sensitivity – learning more about youth homelessness culture of the housing service.
- Similar age to participants – being perceived as more relatable.
- Completing PIE training – researching with awareness and intention, developing skills to work with young people and staff.
- Experienced research team – learning from and observing in action, developing skills to deliver and evaluate the programme.

*Gaining a degree of insider status – Navigating the research context with awareness and intention, and prolonged engagement

Researcher Role and Influence on the Research

Thinking about how a researcher may have influenced the research, there are two important considerations: (1) their role in the research and (2) their interaction and relationships with participants (Savin-Baden & Major, 2013). Thinking about researcher influence is particularly important in community-based research, where social dynamics between the community and research can influence power dynamics and research processes (Lian et al., 2019; Wallerstein et al., 2019). Moreover, when conducting qualitative research

123

with vulnerable groups of young people, the role and presence of the research can influence the data collected (Conolly, 2008). To guide this section, I think it is important to delineate my evolving role in the MST4Life™ research project during the time period in which this PhD was completed (see Figure 3.2).

Figure 3.2.

Depictions of Research Roles and Responsibilities During the PhD Time Period

2015-2016	*2016-2018*	*2018-2020*
PhD (F/T)	**PhD (P/T) & research assistant (P/T)**	**PhD (P/T) & research associate (P/T)**
Roles and responsibilities • Data collection and analysis • Assisting programme workshops and OAE component • Learning and development	Roles and responsibilities • Data collection and analysis • Co-deliver of programme workshops and outdoors component • Assist with programme organisation (e.g., planning OAE component, liaising with staff). • Assisting with research reports and manuscripts	Roles and responsibilities • Data collection and analysis • Lead role in delivery and organisation of workshops and outdoors component • Supporting and initiating research activities to meet programme sustainability goals • Lead role on research reports and manuscripts
Data collected for Chapter 4	Data collected for Chapter 5	

Full-time PhD Student

I initially started evaluating the MST4Life™ programme as a full-time PhD student (2015-2016). In my role as a full-time PhD student experiencing the programme for the first time, my primary roles were to collect data and attend sessions to observe the programme facilitators and learn more about the programme in a hands-on style. The advantage of this

position was that I had very little responsibility for programme delivery. In sessions, I could embrace interacting with participants and experiencing the programme for the first time; I speak more about this social dynamic with participants in Chapter 4.

There were some experiences during my time as a full-time PhD student that had a unique influence on my role in the research process and the relationships I formed with participants. First, the young people and I were both experiencing the programme for the first time and forged some relational connections that strengthened the rapport-building process. In addition, occupying a role that was somewhere in between a facilitator, member of staff, and fellow participant helped to break down some barriers of being perceived as an outsider. As previously mentioned, being close in age also aided a perception of relatability. On reflection, I think many of the unique social dynamics of studying the programme and experiencing the programme for the first time also influenced engagement with data collection. The positive relationships I formed with participants played a role in helping them feel more comfortable with engaging with data collection protocols like the diary room. Although social desirability may have influenced the responses of the young people when I asked the questions (Bergen & Labonté, 2020), in light of the challenges of engaging vulnerable young people in research (Allen, 2002), I believe there was moral and ethical value in supporting participants to feel confident to engage with data collection and share their experiences.

My relationships with staff also shaped my positionality within the research context. Broadly speaking, relationships with staff were established through informal communications, typically occurring before and after workshops. In particular reference to the staff who participated in the present thesis, my relationships differed depending on their involvement with MST4Life™ as a research project and the specific programme evaluated. For example, one LSW staff was heavily involved in the initial planning and pilot testing of

MST4Life™. He had built a good rapport with other researchers and was a strong proponent of the programme. He was also incredibly passionate about St Basils and working with young people. Despite spending the majority of his time at one accommodation site, he was well known across the service and liked by staff and young people. His personable manner made him easy to get along with, and we built a good relationship. As a result, we engaged in a detailed yet relaxed conversation about MST4Life™ in the two interviews conducted.

With staff less involved in MST4Life™, the relationship and data collection felt more formal. This was particularly notable for two staff members, who, despite having good relationships with young people and supporting the logistics of the programme (i.e., planning and organisation), were not present in workshops or the OAE component. As a result, I felt I had fewer opportunities to engage with them in informal conversations and build a sense of familiarity. Nonetheless, this may have brought some advantages to data collection; for instance, there may have been less risk of social desirability influencing the data collection process than in interviews when I felt I had a closer relationship with the participant (Bergen & Labonté, 2020). Moreover, interviews with staff members who had not previously worked with MST4Life™ posed less risk of providing positively biased responses due to being more detached from the programme. Although there were differences in relationships with staff and their levels of involvement with MST4Life™, they all demonstrated a good understanding of the young people they worked with and offered detailed depictions of how the programme had influenced them.

Part-time PhD Student and Part-Time Researcher

After completing one year as a full-time PhD student, the following four years of study were on a part-time schedule as I also worked on MST4Life™ as a research assistant (2016-2018) and later as a research associate (2018-2020). Moving into a position of being a

researcher on the programme, I progressively took more responsibility for programme

delivery, organisation and dissemination (e.g., writing reports and manuscripts). From an

applied perspective, this meant my role in the research process went from being more passive

(i.e., in a more observatory role, with fewer responsibilities) to more active (i.e., assisting and

leading programme delivery). The benefit of studying and working part-time on the

MST4Life™ research project was that I could benefit from prolonged engagement in the

research context, helping to understand the community better, forming sustained relationships

with staff, and working with the organisation to promote longer-term change.

Reflecting on my possible influence on the research, it is important to acknowledge

that as I took on more responsibility for programme delivery, I was implicitly shaping the

intervention. Indeed, a key tenet of social research is the notion that no knowledge can be

understood devoid of subjective experience (Carr, 2000). An argument could be made that it

would be difficult for me to disconnect enough from the programme to complete an

'objective' evaluation of it. On the other hand, a strength of community-based research is for

a researcher to be embedded in their research context to truly understand the unique aspects

of the community they are studying (Israel et al., 1998). In Chapter 5, one of the benefits of

having attended many of the MST4Life™ outdoor residential trips meant I was able to build

from a wide range of experiences and journeys I shared with participants to enrich my

interpretation of the data. On the other hand, being so embedded in the programme meant my

interpretations may have been influenced by unconscious biases.

The outdoors component of the programme is an element of the MST4Life™

programme that has not been replicated in existing literature (i.e., young people experiencing

homelessness taking part in an outdoors residential programme). Moreover, every outdoors

residential was a unique experience, and the social dynamics during the course strongly

influenced everyone's experiences of it. When reflecting on my role during the outdoors

courses, I strongly recall how quickly relationships could gain depth during the residential. For example, young people would often open up about things going on in their personal lives that were, in some cases, traumatic or intense; in these moments, I remember discussing with colleagues how our role seemed to sit somewhere between a researcher, a facilitator, a mentor, and, to an extent, a counsellor. The process of young people opening up was a reflection of the trust we would build and the therapeutic nature of the outdoor experience. The PIE training and experienced research colleagues helped to manage relationships with participants in a safe and psychologically informed way. I don't recall ever feeling overwhelmed by what a participant shared with me, but I do believe that having built a strong rapport with participants during Phase 1 was important for navigating the challenges of the outdoors component and experiencing personal growth. Working with participants over multiple iterations of the outdoors component helped to construct a thorough investigation into a novel programming approach and build a nuanced depiction of participants' experiences.

Summary

In sum, working with young people and staff in St Basils taught me how relationships are central to conducting qualitative, community-based research and supporting participants to feel empowered to engage in the research process. The relationships formed with young people and staff will have influenced the research process and findings, such as the subtleties in conversational dynamics during data collection, my interpretation of the data from memories and experiences, and the narrative I construct. My prolonged engagement in St Basils and with the MST4Life™ research project has helped me to gain an in-depth understanding of the research-context dynamics and how they have evolved over time. Being cognizant of my positionality in relation to the research context and the broader social issues of youth homelessness is an important aspect of my reflexivity while researching in a

community setting (Muhammad et al., 2015; Romm, 2010). Nonetheless, it is important to acknowledge how my dual roles as programme facilitator and evaluator can influence my ability to sufficiently distance myself from the MST4Life™ to provide an 'objective' perception of it.

Conclusion

The positionality statement presented in this chapter pertains to the two empirical studies of MST4Life™ conducted during my PhD research; these were a realist-informed evaluation of MST4Life™ (Chapter 4) and an investigation into the outdoor component of the programme (Chapter 5). The two studies presented in Chapters 4 and 5 were underpinned by philosophical beliefs from pragmatism (Dewey, 1925, 2008; Morgan, 2014) and the transformative paradigm (Merterns, 1999, 2007). The research paradigms align with CBPR principles of the broader MST4Life™ research project (Cumming et al., 2021a) and the qualitative data collection methods employed in the present thesis. Moreover, both paradigms direct an overarching purpose for the present thesis to conduct research in the pursuit of social justice and to find real-world solutions to real-world issues.

The reflexive considerations included in this positionality chapter provide an insight into my reflections on conducting evaluations of MST4Life™, with the goal of promoting discursive accountability for my role in the research process (Romm, 2014). Reflexive statements that are specific to the qualitative evaluations of MST4Life™ are presented in the respective chapters. The following chapter depicts the first of two qualitative studies of MST4Life™, a realist-informed evaluation of MST4Life™.

Introduction

Youth homelessness is an issue of global significance (Embleton et al., 2016). Young people experiencing homelessness face many inequalities, including an increased likelihood of diagnosed mental health disorders, physical health risks, and social exclusion (Hodgson et al., 2013; Medlow et al., 2014; Morton et al., 2018). Such inequalities are triggered and compounded by adverse childhood experiences (Grey & Woodfine, 2018), impairing young people's capacity to adaptively self-regulate or effectively seek out support (Cook et al., 2005; Hambrick et al., 2019). Over one-third of young people experiencing homelessness in the United Kingdom (UK) are socially excluded, lack independent living skills, and experience mental health issues (Homeless Link, 2018). Housing services recognise the need for effective interventions to support service users' complex and co-occurring needs (Homeless link, 2018). Remedying the shortcomings in the current responses to youth homelessness in the UK could significantly reduce the estimated £1.1bn spent on homelessness each year[12] (Ministry of Housing, Communities, and Local Government, 2018).

Despite health and social disparities, identifying young people experiencing homelessness solely by deficits risks perpetuating stigmatising societal views and harmful

---

[12] Most recent figures from 2015-16

self-fulfilling prophecies (Farrugia, 2010). Alternatively, programmes focusing on building trust and positive relationships are likely to be more effective than problem-focused approaches (Slesnick et al., 2009). Young people experiencing homelessness report a preference for participatory and autonomy-supportive programmes that offer emotional and affirmational support (Stewart et al., 2010). One framework that can facilitate these programme characteristics is self-determination theory (SDT; Ryan & Deci, 2000). When applied in shelters for young people, satisfying residents' basic psychological needs of autonomy (i.e., a sense of volition), competence (i.e., a sense of achievement), and relatedness (i.e., a sense of belonging) led to improvements in perceived quality of life (Krabbenborg et al., 2017a). Additionally, housing services that promote feelings of personal control (i.e., autonomy) facilitate better service utilisation leading to improved mental health and young people exiting homelessness (Slesnick et al., 2017). Recent reviews of interventions have indicated that preventative, strengths-based approaches effectively promote resilience and psychosocial well-being and reduce health risk behaviours (Cronley & Evans, 2017; Morton et al., 2020). In service provision, a strengths-based model of care improved feelings of depression, engagement in work and school, and family relations (Krabbenborg et al., 2017b).

In sum, effective approaches for working with young people experiencing homelessness include (1) strength-based practices, (2) a theory-driven framework (i.e., SDT), and (3) preventative intervention. The support needs that need to be addressed include (1) transferable life skills (i.e., independent living skills); (2) basic psychological needs (i.e., autonomy, relatedness, and competence); and (3) outcomes underpinning positive health (i.e., self-regulation, well-being). My Strengths Training for Life™ (MST4Life™) aligns these approaches and outcomes. MST4Life™ is a community- and outdoors-based, positive youth development (PYD) programme working collaboratively with a housing service that supports

131

young people aged between 16-24 years who are experiencing or at risk of homelessness. The programme has been co-designed to find community-driven and evidence-based solutions to improve social inclusion, health and well-being outcomes for young people. Understanding how MST4Life™ promotes positive health and developmental trajectories to support young people out of homelessness would provide a novel and significant contribution to the field (Morton et al., 2020).

Theory

PYD is an approach to youth programming that takes a strengths-based lens to the psychosocial development of young people (Damon, 2004). MST4Life™ builds from tenets of PYD by implementing a life skills programme and transfer setting designed to promote person-centred psychosocial development (Holt et al., 2017; Pierce et al., 2017). A transfer setting is considered to be a novel context in which participants have opportunities to apply skills they have already developed in a familiar setting (Pierce et al., 2017). In their definition of transfer, Pierce et al. (2017) suggest the advantage of transfer settings is to promote the likelihood that skills and assets are applied to other domains in life:

> The ongoing process by which an individual further develops or learns and internalises a personal asset (i.e., psychosocial skill, knowledge, disposition, identity construction, or transformation) in sport and then experiences personal change through the application of the asset in one or more life domains beyond the context where it was originally learned. (p. 194).

In the case of MST4Life™, psychosocial skills are transferred from workshop-based learning in training facilities (psychoeducational programme - Phase 1) to an outdoors pursuit centre when taking part in outdoor adventure education (OAE) activities (OAE component – Phase 2). Participant-led development is exemplified in MST4Life™ workshops through a

challenge by choice philosophy during the OAE component (Russel & Bisson, 2003), meaning content is structured based upon desired learning outcomes, but a flexible approach is taken to meet the needs of different groups or individuals (Cumming et al., 2021).

PYD also highlights the importance of developmentally appropriate environments to support young people's capacity to thrive (Lerner et al., 2011). MST4Life™ builds from two theories to inform the programme atmosphere and learning style. First, facilitators adhere to SDT-informed behavioural guidelines for creating a needs-supportive climate to promote feelings of well-being and foster intrinsic motivation (Ryan & Deci, 2000; Tidmarsh et al., 2021). Research evaluating MST4Life™ suggests autonomy satisfaction is linked to participant engagement in workshops (Cooley et al., 2019).

MST4Life™ also adopts a hands-on learning style through out-of-house activities and an outdoors adventure education component (OAE) and incorporates experiential learning theory (Kolb, 1984), utilising Kolb's reflective learning cycle to structure group-based reflections on concrete learning experiences. Despite conceptual support for the synergy of experiential learning and strengths-based approaches to elicit positive outcomes, there is limited empirical evidence (MacKenzie et al., 2014). Evaluating the multi-theory approach in MST4Life™ will provide novel applied and theoretical insights into the implementation of PYD programmes (Brink & Wissing, 2012).

Evaluative Framework

MST4Life™ fills many criteria for an effective approach to working with young people experiencing homelessness; however, in the absence of a systematic evaluation, understanding how the programme incorporates these different criteria remains unclear. Therefore, in the present study, principles from realist evaluative research were implemented

133

to investigate the context, mechanism, and outcome variables that were influential during a typical MST4Life™ programme.

Realist evaluative research stems from a scientific philosophy of critical realism (McEvoy et al., 2003; Porter & O'Halloran, 2012). Ontologically, critical realism proposes that reality consists of both a measurable objective layer and a social component (Bhaskar, 1998; Collier, 1994). This overarching view of reality is reflected in an epistemological approach that places importance on theory-driven knowledge that aids the understanding of causality and explanation of our socially constructed and physical realities (Danermark et al., 2002). From a critical realism perspective, tenets of realist evaluation research implore researchers to investigate how multiple components of an intervention can explain causality in the process of producing outcomes (Pawson & Tilley, 1997). Pawson and Tilley (2004) underscore the importance of acknowledging that interventions are delivered in physical and social environments and, importantly, how participants respond to the resources provided during an intervention will determine its success or failure.

By attempting to understand how participants respond to an intervention, realist evaluations are an effective approach to exploring the psychosocial nuances of interventions (e.g., see Jagosh et al., 2015). The idea of understanding psychosocial nuances resonates with the commonly held mantra of realist evaluations, that is, what works for whom and under what conditions (Pawson & Tilley, 1997). Therefore, findings from realist evaluations elicit an element of relativity and specificity, resulting in certain restraints to the generalisability of findings; however, it also makes them useful methodologies to developing programme theories and, over time, broader theories of change (Blamey & MacKenzie, 2004). Realist evaluations are also a ground-up approach to intervention evaluations (Pawson & Tilley, 1997). For example, researchers will typically set out with an explicit goal of conducting a realist evaluation and implement relevant data collection methods, exemplified in realist

interviews, which are "a situation in which the theoretical postulates/conceptual structures under investigation are open for inspection in a way that allows the respondent to make an informed and critical account of them" (Pawson, 1996, p. 313. Realist interviews are often used as a method for testing and critiquing programme theories (Mukumbang et al., 2020). Although interview topic guides for the present study were theory-informed and grounded in findings from previous evaluations of MST4Life™, they were not informed by realist evaluation research. Therefore, it is more accurate to say principles from realistic evaluation research were applied to understand how and why the programme appears to work.

In applying a realist evaluation framework when evaluating two delivery cohorts of MST4Life™, the current study provides an in-depth understanding of how and why the programme is perceived to work from the perspective of key stakeholders. Findings from this study will contribute to understanding a broader theory of change for the MST4Life™ project. While it is acknowledged findings from this study will predominantly resonate with the MST4Life™ programme, it is also hoped that conclusions can provide novel theoretical insights that can help inform guidelines for best practice when working with young people experiencing homelessness. The research questions addressed in the study were:

1. What are the contextual conditions and programme mechanisms that influence how young people respond to MST4Life™?

2. What are the short- and long-term outcomes for participants as a result of taking part in MST4Life™?

Methods

Programme Outline

The MST4Life™ programme in this study included two phases. Phase 1 was a psychoeducational programme, including ten workshops (approximately two

135

hours/workshop), which provided participants with opportunities to develop intra- and interpersonal skills through in-house and out-of-house activities (e.g., a cake sale at a university campus; a breakdown of workshops is provided in Table 1.3). In-house workshops were delivered in training rooms within the housing services' supported accommodation. Supported accommodation sites in the present study included fully- (i.e., 24-hour staff supervision) and semi-supported (i.e., staff supervision during daytime hours) services. The programme facilitators were two researchers (post-graduate and post-doctoral) with experience of working with undergraduate students to develop psychological skills such as imagery and teamwork. In adapting their skillset for young people experiencing homelessness, facilitators received psychologically informed environments (PIE) training from a clinical psychologist at the housing service. Additionally, they received ongoing support through reflexive practice while delivering MST4Life™ (Cumming et al., 2017).

Phase 2 was a four-day OAE component in the Lake District, UK (approximately 170 miles from the housing service's accommodation sites). The geographical distance and changes in physical landscape from the city to the countryside meant that Phase 2 set the stage for an entirely different experience from Phase 1. This was an intentional feature in the programme design to facilitate the transfer of skills from workshops and activities to a new, challenging domain. For instance, participants could apply social skills in various team-based activities, such as canoeing, hiking, high ropes course, and raft building. Throughout the course, all activities were delivered by trained OAE instructors. The programme's OAE component provided a transfer setting for continued skill development and further experiential learning (e.g., hands-on learning, structured reflections). Core components of the programme's needs-supportive atmosphere and facilitator delivery style were upheld during the OAE residential (Tidmarsh et al., 2021).

Application of Realist Evaluation Research Principles

For the present study, some key principles from realist evaluation research were applied. From a research philosophy lens, there is some congruence between the overarching research paradigm for realist evaluation research (i.e., critical realism) and those used to inform this thesis (i.e., pragmatism and the transformative paradigm). Both critical realism and pragmatism acknowledge a dichotomous interaction between objectivity and subjectivity regarding ontological interpretations of reality (DeForge & Shaw, 2012; Johnson & Duberly, 2000). Moreover, core tenets of critical realism that acknowledge social inequalities in socially constructed realities (Bhaskar, 2016; Scambler, 2013) resonate with the importance of human experience in pragmatism (Bohman et al., 2002) and social hierarchy in the transformative paradigm (Egbo, 2006; Collins et al., 2015). Epistemologically, critical realism, like pragmatism and the transformative paradigm, recognises the importance of relativity (i.e., understanding participants' lived experiences) when understanding how and why interventions might be effective (McEvoy & Richards, 2003). A relativist epistemological philosophy can be mobilised through realist evaluations.

A core tenet of realist evaluations is to understand why an intervention works, for whom, and under what conditions (Pawson & Tiley, 1997). The approach of aiming to understand the unique aspects of a particular context and population makes realist evaluations an effective tool adopting an explanatory focus to understanding complex, community-based interventions, like MST4Life™ (de Souza, 2013; Jagosh et al., 2015; Salter & Kothari, 2014). Implementing principles from realist evaluation research, such as being theory-driven and culturally sensitive, was considered an effective approach to investigating the multifaceted elements of the programme and answering research questions pertaining to this chapter. Core principles from a realist evaluation are exemplified by applying a context,

mechanism, and outcome framework to understand how and why the MST4Life™ programme is perceived to be effective.

In realist evaluations, a context, mechanism, and outcome framework can aid a researcher in drawing causative explanations from the data. The notion of what constitutes a context in realist evaluations has been (and continues to be) contested, and there are multiple definitions (Fitzpatrick, 2012; Green, 2005; Pawson, 2013). However, it is generally thought that a programme context includes physical and social dynamics, such as the geographical location and social and cultural norms. A recent review of realist evaluations in social research (Greenhalgh & Mazano, 2021) found that how studies define context can be deduced into two narratives:

> 1) context conceptualised as tangible, fixed, observable features that trigger mechanisms; 2) context conceptualised as relational and dynamic features that shape the mechanisms through which the intervention works. (p. 2).

The narrative of context being a relational and dynamic concept seems most pertinent in MST4Life™. For example, St Basils provides the majority of the physical and social backdrop to the intervention, providing training rooms and facilitating an overarching psychologically-informed approach (PIE); yet, there are different social nuances and physical resources across the accommodation sites. Additionally, a typical MST4Life™ programme introduces new environments through community-based, experiential learning activities and an outdoors component, both of which offer unique physical and social changes and challenges, which is an intentional feature of the intervention. Moreover, social components of context in the present thesis were informed by the four I's formulation, that is, the individuals that take part, the interrelationship between stakeholders, the institutional arrangement in which the programme is embedded, and the infrastructure of broader social

dynamics (Kelly, 2019). It was beyond the scope and aims of this study to explore institutional or infrastructural dynamics that influenced the programme and St Basils as an organisation. Instead, the interactions of physical and social dynamics of the programme were considered the pertinent contextual components; this explanatory inquiry was informed by initial programme planning and evaluations that underscored the importance of providing transfer settings and continued psychological support (e.g., PIE; Cumming et al., 2017) to nurture well-being and foster engagement throughout the MST4Life™ programme (Cooley 2015b; Cooley et al., 2019). It could be argued that the conceptualisation of context in the present study is an amalgamation of context and mechanism, given definitions of mechanisms usually pertain to resources provided by a programme (such as social support; Pawson & Tilley, 1997). Therefore, the present study differentiates mechanisms as reflective of participants' responses, which is also acknowledged as an important construct in programme mechanisms (Pawson & Tilley, 2004; Westhorp, 2018).

A definition for programme mechanisms that emphasises participant responses is provided by Pawson and Tilley (2004): "how subjects interpret and act upon the intervention stratagem is known as the programme mechanism" (p. 6). Understanding participants' responses is a central tenet when conducting realist evaluations of social programmes and make the approach well suited to CBPR (Jagosh et al., 2015; Pawson & Tiley, 2004). Placing emphasis on understanding how participants responded when understanding programme mechanisms aligned the present study with the overarching CBPR principles of the MST4Life™ project (see Cumming et al., 2021). Moreover, focusing on understanding how participants respond from their perspective was a process for placing the views and voices of a typically marginalised population at the centre of the programme evaluation (e.g., voicesofyouthcount.org/approach/). With this in mind, when analysing the data collected from young people, St Basils staff, and outdoor instructors, the decision was made to give

greater weight to the views of young people, in line with recommendations for working with vulnerable young people (Bradbury-Jones et al., 2018).

Mechanisms are thought to facilitate outcomes, which are considered the intended and unintended consequences of a programme (Pawson & Tilley, 2004). Outcomes also have a temporal nature, meaning short- and medium-term outcomes can occur throughout a programme, sometimes referred to as outcome patterns (Pawson & Tilley, 2004). It was important to consider the temporal nature of outcomes when evaluating MST4Life™ as the programme's logic model suggests participants' will short-, intermediate-, and long-term outcomes (see, Appendix F).

Akin to how a logic model will reflect interacting components of a programme, a context, mechanism, and outcome framework can deduce data into context-mechanism-outcome (CMO) configurations, which can offer "causative explanations about outcomes in the observed data" (Jagosh et al., 2015, p. 3). In community-based research, a partnership's social dynamics can influence how CMO configurations interact over time, described as ripple effects (Jagosh et al., 2015). For example, building trust in community-based programmes can positively influence the social context and initiate a series of CMO configurations to support effective implementation (Jagosh et al., 2015). The notion of ripple effects occurring between CMO configurations is pertinent in MST4Life™ because the programme aims to promote change over time, which is likely to affect the social dynamics within the programme. By adopting a realist evaluation methodology, this study captured the intentional and unintentional changes throughout MST4Life™ and how they affected short- and longer-term outcomes.

Study Design

A nonexperimental cohort study design was adopted for this study (Setia, 2016), with participants being recruited from two cohorts of delivery. Each cohort comprised three accommodation sites receiving the programme (Figure 4.1). The cohorts included in this study received Phase 1 of the programme between September 2015 and April 2016 and attended the OAE component of the course together (April 2016). Self-selected sampling was used to recruit participants; despite a risk of self-selection bias (Heckman, 1990), enabling participants to have autonomy in the research aligned with the community-based participatory approach of the broader research project. As participants were not purposely selected for the study, multiple cases supported conceptual understanding rather than population representativeness (Herens et al., 2017). Participants for each case included MST4Life™ participants (i.e., young people from St Basils), St Basils staff, and outdoor instructors. Additionally, my field notes were included as an additional source of data.

Figure 4.1.

Visual Depiction of Cohorts Included in the Study

Cohort A	Cohort B
Accommodation Site 1 (staffed 24/7 – fully supported) MST4Life™ participants, n = 3 (*M* age = 19.2 yrs.) St Basils staff, n = 0	**Accommodation Site 4** (staffed 24/7 – fully supported) MST4Life™ participants, n = 6 (*M* age = 18.9 yrs.) St Basils staff, n = 1
Accommodation Site 2 (staffed 24/7 – fully supported MST4Life™ participants, n = 6 (*M* age = 20.8 yrs.) St Basils staff, n = 0	**Accommodation Site 5** (staffed 24/7 – fully supported MST4Life™ participants, n= 8 (*M* age = 20.7 yrs.) St Basils staff, n = 2 (and follow-up data)
Accommodation Site 3 (staffed 9-5 on week days – semi supported) MST4Life™ participants, n = 4 (*M* age = 19.7 yrs.) St Basils staff, n = 1	**Accommodation Site 6** (living semi-independently - floating support) MST4Life™ participants, n = 3 (*M* age = 20.1 yrs.) St Basils staff, = 1
MST4Life™ participants, *n* = 13 (*M* = 19.9 yrs.) **St Basils staff, *n* = 1**	**MST4Life™ participants, *n* = 17 (*M* = 19.9 yrs.)** **St Basils staff, *n* = 4 (follow-up, *n* = 2)**

OAE instructors, n = 5

Ethics

Ethical approval was obtained from a university ethics committee (ERN_13-0834; 2013). All participants (including St Basils staff and OAE instructors) provided informed consent (Appendices G and H), with the opportunity to ask questions and the right to opt-out during and up to three months following study completion. The confidentiality and anonymity of participants have been protected.

For the delivery and implementation of MST4Life™ ethical consideration related to upholding the safety and well-being of participants. MST4Life™ facilitators would meet with St Basils staff before implementing a new programme to discuss potential risks and any complex support needs of young people in more detail. Throughout programme delivery, St Basils staff and MST4Life™ facilitators would engage in reflective conversations and work collaboratively to ensure any evolving issues could be addressed. For example, pre-session meetings and phone calls with St Basils staff provided updates for the MST4Life™ facilitator if anything disruptive, stressful, or potentially harmful had happened in young people's lives in time between sessions. Working together, St Basils staff and programme facilitators could find solutions to support young people's engagement. Moreover, MST4Life™ facilitators would work with participants to establish mutually agreed ground rules for programme delivery; these would typically include guidelines for behavioural conduct to help everyone feel safe during sessions and the importance of upholding confidentiality if anything personal was discussed. Finally, each session started with an informal check-in to gauge participants' energy levels and mood to determine how, if at all, the session could be adjusted to support participants to engage (i.e., slower pace, more breaks).

Before attending the OAE component of the programme, it was standard protocol that an up-to-date risk assessment for all participants would be sent to the OAE instructors.

Moreover, a standardised medical form provided by the OAE centre was completed by participants with the support of St Basils staff (e.g., dietary needs, medication, health issues). Prior to the OAE component, MST4Life™ and St Basils staff would discuss possible risks and any additional support that may be required for the young people attending; MST4Life™ facilitators would then discuss any information or action plans that were formulated in these meetings with the instructors at the centre A collaborative decision-making process between the stakeholders ensured all staff were clear on expectations and how best to support young people with complex support needs. If cases were sensitive in nature or required a unique action plan, the young person it pertained to would also be consulted. More broadly, the last session in Phase 1 of MST4Life™ included group-based discussions to address fears or concerns about the OAE component, and MST4Life™ facilitators would stay after the session to have one-to-one conversations if required.

During the OAE component, MST4Life™ facilitators, St Basils staff, and OAE instructors would meet every morning (for approximately 15 minutes) to discuss what, if any, steps were required to manage issues, minimise risks, and promote participants' safety and well-being. Additionally, OAE instructors and MST4Life™ staff would have informal reflections at the end of the day to discuss any concerns that may have arisen. Similarly, St Basils staff and MST4Life™ facilitators would informally check in to ensure participants' safety and well-being was being maintained. Finally, participants themselves were also consulted in morning meetings as well as informally throughout the day to ensure their specific needs were being met.

In line with participants' right to opt-out, if any participant expressed a desire to leave during the OAE component, this was managed collaboratively between the young person themselves and all adult staff. The first response was to find solutions that could support the young person to stay; if this was not possible, a plan was put in place to get them home

safely. In the present study, one participant left the OAE component early; they were over the age of 18 and therefore did not require adult supervision to return home; they were driven to a nearby train station and provided with a train ticket to return to Birmingham. The participant was consulted in the decision-making process and was happy with the solution.

Study Sample

The study sample included MST4Life™ participants, housing service staff who supported them and the programme more broadly, and OAE instructors who led Phase 2. The study sample was collated from two cohorts of participants receiving the programme; differences and similarities of the cohorts are described before providing additional information for MST4Life™ participants, housing staff, and OAE instructors

The Cohorts

Included in the present study were two cohorts of MST4Life™ participants, with additional data being gleaned from housing staff who supported them and the OAE instructors or led the OAE component participants attended. As alluded to in Figure 4.1, the two cohorts captured a total of six different accommodation sites at St Basils; these accommodation sites were categorised as fully supported (i.e., staffed 24/7; $n = 4$), semi-supported (i.e., staff from 9-5 during weekdays; $n = 1$), and floating support (i.e., young people live independently but receive regular support from staff, $n = 1$). All living conditions were located in Birmingham in predominantly urbanised areas. The fully and semi-supported accommodation sites included a training room for MST4Life™ to be facilitated. For young people receiving floating support, a training facility in the local community that was easily accessible was used. In the fully and semi-supported accommodation sites, young people were more familiar with each other due to living in close proximity. While those living independently did not know each other as well, they were generally familiar with those taking

part in the programme. Overall, there did not appear to be any major differences between participants at different accommodation sites, and the sample as a whole was heterogeneous in terms of personal and social characteristics.

MST4Life™ Participants

MST4Life™ participants were recruited from a group of young people who attended at least one programme workshop (Phase 1) during the time of data collection ($N = 50$). Those who provided informed consent and engaged with qualitative data collection contributed to the data set ($n = 30$), of which 21 attended Phases 1 (averaged attendance, six sessions) and 2. Reasons for dropout between Phase 1 and Phase 2 were not recorded; however, common reasons for participants not attending the residential included work or family commitments and not feeling confident about the residential aspects of the OAE component. One participant did not finish Phase 2 of the programme, deciding to leave early of their volition; the exact reasons for this participant dropping out are unclear; while they claimed it was for personal reasons, a staff member who knew them well suggested it may have been due to fear of withdrawal symptoms from substance use.

The average age of participants who participated in Phase 1 and Phase 2 of the programme was 19.9 years ($SD = 2.04$, 16-24 yrs.); 50% of the sample were female (one participant identified as transgender). Most participants were White (60%); other ethnicities included Mixed ethnicity (27%), Black (7%), Asian (7%), and other (3%). On average, participants had spent 5.5 months ($SD = 4.4$ months) at the housing service (range = < 7 days to 15.6 months). Support needs of participants included not being in education, employment or training (NEET; 66%), learning difficulties (23%), and, for those where data were obtainable from the housing service ($n = 9$), 78% had a mental health condition. Based on recent estimates from young people experiencing homelessness in the UK, it is likely over

146

one-third of MST4Life™ participants would have experienced mental health problems (Homeless Link, 2018).

Housing Staff and OAE Instructors

Housing service staff ($N = 5$) were selected based on having one-to-one experience working with the MST4Life™ participants and their willingness to participate in the research. The roles of the different staff were support workers ($n = 4$) and a learning, support and work (LSW) officer ($n = 1$). A detailed description of support workers and LSW officers can be found on p. 15 in Chapter 1. Based on data from interviews, three staff members had been working with St Basils for between three and four years. One staff member was coming towards the end of their first year of employment with St Basils, and the most experienced staff member was the LSW officer, who stated he had worked with the organisation for 12 years. For most staff, this was their first interaction with the programme ($n = 3$); however, two staff members had been more actively involved in previous programmes due to their roles in extracurricular programmes for young people. During the programme, five staff members attended workshops in Phase 1, three of which attended Phase 2. One staff member had little engagement in workshops but assisted with the organisation of the programme.

The OAE instructors that participated ($N = 5$) supported Phase 2. Four of the five instructors were consulted when designing the programme and had previous experience delivering OAE courses with MST4Life™ (Cumming et al., 2015). Given the instructors' role in delivering Phase 2 of the programme and their extensive experience in delivering OAE courses, it was essential to capture their views on the role of the outdoors in the development of MST4Life™ participants.

Data Collection

Data were collected during Phases 1 and 2 and at follow-up (two-three months after Phase 2).

Semi-structured Interviews and Focus Group

Five housing staff members were interviewed during Phase 1 of the programme and two were interviewed again at follow-up (2-3 months after Phase 2). Topic guides explored the programme's context, mechanism, and outcome components, with specific probes to clarify different perspectives (Appendices 4.3 and 4.4). MST4Life™ participants discussed were selected by staff members based on how closely they worked with them and their understanding of what, if any, changes occurred as a result of the programme. Interviews were conducted by the lead researcher (myself) and lasted, on average, 65 minutes (range 37-102 minutes).

A focus group was conducted with OAE instructors two months after the OAE course. The purpose of this focus group was to capture instructors' experiences and reflections on the OAE component. It is likely that more accurate reflections may have been captured if the focus group had been conducted sooner; however, due to the busy schedules of the instructors (often delivering back-to-back courses during the summer), this was the only time when all instructors were available to participate in the focus group. The topic guide followed a similar structure to housing service staff interviews, focusing on understanding the role of the OAE component in MST4Life™ (Appendix K). The focus group was conducted by the lead author via Skype and lasted 71 minutes.

Diary Room

MST4Life™ participants engaged with data collection via a diary room method – an approach originally designed to evaluate team-building programmes with undergraduate

students (Cooley et al., 2014b). When possible, the proposed diary room set-up was used: audio or visual recording of participants answering questions regarding the programme without an interviewer present. However, many participants found this set-up uncomfortable. Therefore, to maximise participation, the diary room was used flexibly. Participants chose to complete an entry with a researcher asking the questions, with a fellow participant asking the questions, or handwritten. Participants answered open-ended questions that captured their experiences of MST4Life™, feedback on the content and delivery, and their feelings regarding what they took away from the programme. Questions differed in Phases 1 and 2 to reflect the changes in the contextual conditions and different mechanisms that may be impactful (Appendix L). The audio diary room entries ranged from 2 to 10 minutes ($M = 6$ minutes).

Field Notes

A combination of field notes and personal reflections from being engaged in the programme and collecting data have been included in the results sections to further contextualise and critique the results. Importantly, these field notes are used to supplement data collected from stakeholders and reflect on findings and were not the main source of data for the results.

Data Analysis

All data were transcribed verbatim. Nvivo 12 software was used for managing and processing data. Data were analysed using thematic analysis, aligning with an interpretivist epistemological stance (Braun & Clarke, 2006, 2019). Thematic analysis is a specific approach to qualitative data analysis that centres on generating themes from "patterns of shared meaning across the dataset" (p. 592; Braun & Clarke, 2019); in other words, understanding 'the story' through a coherent narrative. An iterative analytical process

involved data immersion, developing codes, and constructing themes to generate CMO configurations to explain how the programme was perceived to work (Braun & Clarke, 2006).

The development of CMO configurations involved analysing themes to first establish context, mechanism and outcome categories individually before looking for links between themes in dyad (e.g., CM or MO) and triad (e.g., CMO) configurations to generate data-driven linked CMO configurations (Jackson & Kolla, 2012). CMO configurations were then analysed for temporal patterns and ripple effects (Jagosh et al., 2015). In a lecture delivered by Dr Victoria Clarke[13] (from Braun & Clarke, 2006, 2019), she warned against using 'bucket themes' in thematic analysis, described as crude themes that have one- or two-word titles and offer little explanation for what the theme represents, therein, losing the essence of capturing the thematic story. To minimise the risk of bucket themes when constructing CMO configurations, the analysis included developing a description of what the CMO reflected, in which the C, M and O were integrated and identifiable (Jackson & Kolla, 2012). CMO configurations were subject to triangulation of data from different sources, refined through the development of a data-driven and theory-informed conceptual model, and critiqued through critical discussions with researchers and stakeholders involved in the programme (Barbour, 2001; Smith & McGannon, 2018; Yin, 2013). Additionally, I have provided a reflexive statement to reflect on the potential influences of my interpretation of data.

Reflexive Statement

In thematic analysis, it is good practice for the researcher to reflect on their role and how this influenced their interpretation of the data (Braun & Clarke, 2019). Although one's

---

[13] A lecture given by Dr Victoria Clarke at the University the West of England, Bristol, UK, in November 2017. The lecture is entitled "Thematic analysis: What is it, when is it useful, and what does 'best practice' look like?" In this hour lecture, Victoria Clarke maps out different. Source: https://www.youtube.com/watch?v=4voVhTiVydc&ab_channel=VictoriaClarke

positionality within the research can be woven throughout the final report, there is also a risk that the interaction between the researcher and the research context overwhelms the narrative of the final manuscript (Rice, 2009). Instead, I have chosen to dissect my positionality in a separate sub-section to fully divulge the details I feel are pertinent to my interpretation of the data.

First, it is important to state I collected all the qualitative data in the present study, conducting semi-structured interviews with housing staff, focus groups with young people and outdoors instructors, and dairy room entries with young people. During the time of data collection, I held the position of a PhD student. I attended all the workshops of the psychoeducational programmes (Phase 1) and all four days of the OAE courses (Phase 2). During both phases of the programme, my primary role was to support programme delivery (i.e., contribute to group discussions, support participants with tasks) and data collection (i.e., support participants taking part in the diary room). I found the programme and community of St Basils to be almost 'immersive', in the sense that, if I was supporting a workshop, the hands-on style of learning meant I was always actively involved, taking part in activities and working closely with participants and St Basils staff.

I felt I built a good relationship with the cohort of young people in this study, with a unique set of circumstances cultivating a strong rapport-building process with this particular group. For instance, it was my first full involvement in the MST4Life™ programme; I remember a mixture of excited and nervous energy at the prospect of engaging in the research. Not knowing what to expect fully, I believe a sense of shared curiosity between participants and I helped foster relatability. Moreover, with less responsibility to lead the programme, I would often participate in workshop activities, which helped facilitate informal conversations and break down possible preconceptions of status based on differing ascribed and achieved qualities. Interestingly, overseeing data collection also helped build rapport; for

example, if participants were nervous, I'd share my nerves of not wanting to mess anything up! up! In diary room entries where I asked the questions, participants seemed relaxed and happy to engage with me, and I felt they answered the questions authentically and honestly. While my presence during data collection may have influenced the responses given (and, in some capacity, likely did), it also helped young people feel more comfortable engaging in the data collection process, which, ultimately, contributed to building a more enriched understanding of the sample as a whole. Finally, a key part of the rapport building was before and after workshops. The other researchers and I would always arrive at least 15 minutes before the workshop and often stay late for informal conversations. In these moments, over cups of tea and coffee, we would get the opportunity to connect with participants based on a more informal level, hearing about their days, their aspirations and learning more about the person, not just the 'participant'.

Arriving early and staying late was also an opportunity to get to know the staff better. By talking to staff without young people present, I could learn more about their first-hand experience of the service and got an impression of how well they knew the young people. I developed different levels of rapport with staff based on how involved with the programme workshops they were, which influenced the social dynamics of the interviews. For instance, for staff who were less involved in programme workshops, interviews felt more formal and structured. However, for staff I had got to know better through working with them in workshops, interviews felt more conversational and had a natural flow. It is fair to say the data captured in each interview would have been influenced by the nuances of shared understanding, relationship building and the extent to which staff felt comfortable (Garton & Copland, 2010).

Phase 2 of the programme was a unique experience in the research and rapport-building with participants. St Basils staff reflected that the residential aspect of the OAE

course presented rare opportunities to have uninterrupted, in-depth conversations with young people, which is why I felt it was crucial to capture their perspectives in follow-up interviews. For me, it was a powerful experience to watch participants grow in confidence across the two phases of the programme. Moreover, the residential nature of the OAE component meant there were plentiful opportunities for informal conversations. For example, during downtime (i.e., evenings, after activities), meals and team-based activities, I could intentionally seek opportunities to get to know staff, young people and instructors better; this was best exemplified during the mountain hike. I recall how young people would open up to a range of things in their lives; these kinds of interactions enriched my understanding of the participants and the broader issue of youth homelessness on a deeper level, reminding me of my responsibility to ensure I conveyed young people's narratives as authentically as possible when constructing my interpretation of their experiences. In turn, I felt energised to give as many young people as possible an opportunity to engage with the diary room and have the opportunity to share their stories.

Returning from the course, I reached out to staff for a follow-up interview. Staff who had attended the OAE course were keen to share their experiences and discuss the programme's impact once young people returned to their home lives. I felt like the shared experiences during the OAE component had strengthened a sense of rapport and connection in follow-up interviews. From my perspective, the follow-up interviews felt relaxed and shared knowledge helped develop nuanced insights into the participants' development.

I also conducted a follow-up focus group with the OAE instructors, who were enthusiastic about participating in the research, having worked closely with the young people during the OAE course and been involved with the broader MST4Life™ project from the initial planning stages. Spending time with the instructors during the course contributed to a relaxed atmosphere for the focus group. During the discussion, we reflected upon shared

153

experiences working with the participants, with all instructors contributing their insights into how they felt the OAE course influenced individual participants and the group as a whole. I think the quality of the focus group (i.e., richness of data collected, flow of conversation, different topics covered) was aided by the instructors knowing each other well, helping to create a conversational style and a balanced contribution. On reflection, I believe my inexperience with the OAE component helped facilitate detailed insights from the instructors; for instance, when describing their approach to delivering OAE courses and their perceived role of OAE when working with MST4Life™ participants.

Closing Thoughts

In conclusion, I acknowledge that my experiences with participants and involvement in the MST4Life™ programme shaped my interpretation of the present study's data. Ultimately, I learned from my experiences that MST4Life™ offered much greater value than just skill development. From my perspective, young people went on a journey, and although each journey was different, I felt there were common themes across the different perspectives. Further, my hands-on role within the programme allowed me to build a deeper understanding of participants' journeys, which strengthened my invested interest in the participants and the social cause of the research. As a result, I found being actively engaged with MST4Life™ reminded me of the importance of my role as a researcher to do justice to the rich, complex, and nuanced stories of the young people who took part.

Results

The CMO configurations and ripple effects have been developed to most accurately represent how MST4Life™ was perceived to work. That is not to say each CMO configuration is an exact linear pathway for every individual; instead, it is an interpretation of how participants receive and respond to the programme based upon patterns within the data

and informed by relevant theories. Results are presented in chronological order of the proposed conceptual model for MST4Life™ (Figure 4.2). Quotes provided in the text and tables throughout this section have been carefully selected from the broader data set as example evidence of themes. Given my involvement with the programme, I have provided personal reflections based on field notes and notes made during data analysis on CMO configurations developed during Phases 1 and 2.

Figure 4.2.

A Conceptual Overview of MST4Life™ Showing Changes in Participant Characteristics, CMO Configurations Within Phases, and Ripple

Effects of Change Between Phases (black diagonal arrows).
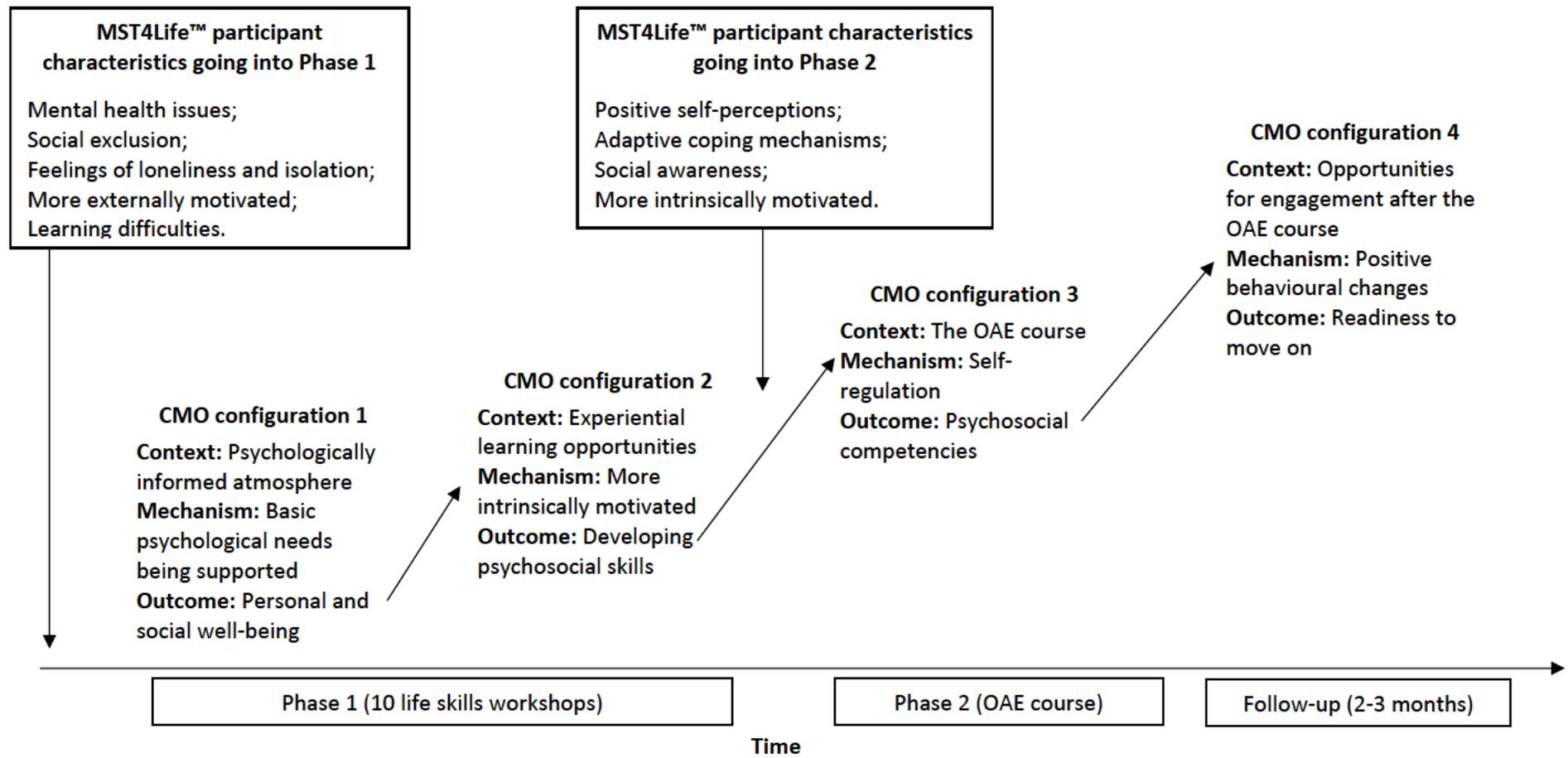
MST4Life™ Participant Characteristics Going into Phase 1

Although data were not collected explicitly regarding participants before they engaged with the programme, its role in the narrative of change was so apparent across data sources, that it felt fitting to factor this into the model. In line with existing data in this population and study sample, qualitative data from staff and MST4Life™ participants reflected the complex support needs young people experiencing homelessness can face (Table 4.1). When discussing support needs, a staff member captured the breadth and severity of the mental health issues one young person experienced, "*[they] suffer from severe anxiety, [they] have a diagnosed personality disorder… a history of self-harm, [they] also has a history of suicide attempts and has struggled with [their] mental health over the years*".

Table 4.1.

Example Themes and Data Demonstrating MST4Life™ Participant Characteristics Going into Phase 1

First-order theme	Sub-theme	Participant perspective	Staff perspective
Participant characteristics going into Phase 1	Mental health issues	I suffer from anxiety, so when I'm around other people, my confidence isn't as high	a lot of them have got quite complex mental health issues and drug addictions
	Socially excluded	90% of the time… I'm in my room watching TV, the only time I come out naturally is to come here [MST4Life™]	they're the capital NEET… doing nothing during the day and getting into mischief, gang activity
	Loneliness/ social isolation	when you're in a hostel, you can get so lonely in your own four walls	they're secluded, and they don't know how to meditate with others

Low self-esteem	my self-esteem and confidence at the moment, it's been knocked… throughout growing up, I've just been knocked	Her confidence, confidence was at zero, even below zero

Phase 1: Psychoeducational Programme

CMO configuration 1: The MST4Life™ programme cultivates a psychologically informed atmosphere (C1) through the environment of the housing service and delivery style of the facilitators. As a result, participants feel their basic psychological needs are met (M1), helping to foster personal and social well-being (O1).

Central to the delivery of MST4Life™ was a psychologically informed atmosphere, comprising two components. First, a PIE framework was embedded across the housing service, providing training for all staff (and programme facilitators) to use psychological tools to inform best practice when working with service users (Cumming et al., 2017). Complimenting this broader style of working, facilitators' needs-supportive delivery style (i.e., informed by SDT) helped participants feel their basic psychological needs were supported. Basic psychological needs being supported was a mechanism in fostering personal and social well-being, reflected in improved self-confidence and feelings of connectedness. One participant captured how the programme had helped change the way they viewed themselves and their situation:

> *there's a stigma attached to being homeless and talking about the feelings and emotions that are associated with that homelessness, but [MST4Life™] completely just breaks through the stigma and it changes the way that you view it, like, it's not a negative thing, it's a positive thing if you choose it to be.*

CMO configuration 2: Experiential learning opportunities (C2) are perceived as enjoyable and challenging. Subsequently, motivations for engaging with the programme are more intrinsically driven (M2). The persistence and commitment that transpires support the development of psychosocial skills (O2).

In this CMO configuration, a shift towards intrinsically driven motives for taking part in the programme was vital. It is also the first ripple effect of the programme because this mechanism was facilitated by improvements in well-being observed in CMO configuration 1. For example, as participants experienced well-being benefits from engaging in MST4Life™, they demonstrated commitment to the programme:

> *to start with, we were chasing [them] to go to MST[14], where actually now [they'll] phone us up and say, 'When am I at MST again?' Which is a massive progression because it's obviously having an impact on [them].*

Furthermore, experiential learning facilitated participants' intrinsic motivation, reflected in hands-on activities being seen as enjoyable, and structured reflection helped add meaning to activities (i.e., autonomy-supportive) and build awareness of personal growth (i.e., competence supportive). The term psychosocial skills were used to reflect the range of intra- and interpersonal skills developed, capturing the nuanced differences in existing competencies and individual goals exhibited across the sample. For some participants, activities were a pathway to improving social skills and emotional regulation, "*Being able to work effectively in a team, being able to control my emotions whilst around other people*"; others discussed building problem-solving and work-related skills (Table 4.2).

Personal Reflections on CMO Configurations in Phase 1 of MST4Life™

---

[14] MST was a commonly used abbreviation for MST4Life™ within the housing service.

On reflection of Phase 1, it seemed that many participants took some time to warm up to the programme; I recall observing how participants began to become more confident to engage with activities, with peers, and with MST4Life™ facilitators over time. There were some individual differences; for example, more extroverted participants appeared more confident from the outset (at least outwardly). However, even in more extroverted participants, meaningful engagement with programme activities, such as discussing personal development and taking on leadership opportunities, was still a process that was developed over time. In my opinion, this nurturing process was predominantly driven by the psychologically informed approach of staff and facilitators, who helped create an atmosphere in workshops where young people felt connected, supported and safe.

The community-based, experiential learning activities were a challenge for some participants. I recall many of the preceding workshops having dedicated time to answering questions young people had and helping to manage worries and anxieties. St Basils staff were also crucial to these activities, not only for organisational and logistical assistance (i.e., assisting participants in getting to the relevant settings) but also from a supportive and role modelling perspective. For example, staff members (and facilitators) would help sell cakes at the Cake Sale activity; in doing so, they implicitly role modelled to young people how to engage with members of the public and helped alleviate social anxieties. Moreover, staff who attended the experiential learning activities could discuss seeing the benefits from a first-hand perspective and how the sessions help them bond with young people and see them in a different light (i.e., taking on leadership responsibilities, effective communication skills).

The mechanism of intrinsically driven motivation linking experiential learning experiences to psychosocial skills captured experiences of participants seeing the intrinsic value of the programme and, as a result, being more actively engaged and getting more out of programme resources. Subsequently, the interpretation of participants' experiences and my

personal reflections was that the more participants saw the value in taking part (i.e.,

intrinsically driven motivations), the more likely they were to actively engage with resources

(i.e., experiential learning experiences) and, therefore, develop psychosocial skills.

Table 4.2.

Example Themes and Data Demonstrating CMO Configurations in Phase 1 of MST4Life™

First-order theme	Sub-theme	Participant perspective	Staff perspective
Psychologically informed atmosphere (C1)	Building positive relationships with MST4Life™ facilitators	[the facilitators] believe in us, young homeless people who live in a hostel, who often feel like we've been forgotten about by the rest of society… for them to come and show how passionate they are about us as young people, it only reinforces the fact that we do matter.	building those relationships with them enabled [them] to kind of relax and be [themselves].
		better than a St Basil's worker because you've got the authority… But, you're also students and then you're still kinda on the same age and same wave length, rather than going home to your Mrs and your kids after, you still got our kinda live style, that helps because we can kinda relate to that and it's like a role model.	I think [MST4Life™] it has helped to change [their] mind-set, that actually there are normal people out there as [they would] classes them. And that not everybody is corrupt, that there are people that will listen to [them] and that [they] can talk to and they can talk to [them], they can communicate on the same level as [them]
	A collective PIE mindset (e.g., accepting others, being sensitive to different needs,	be open, don't be judgemental, everyone is the same as you, build on them and build on you Yeah by having a group challenge and then when they put their ideas, and then like nobody	for me it's more than just a job, for me personally, can't speak for nobody else… how I look at is: if my kids were in St Basil's, how would I want the staff to deal with my kids? Just little talks every now and again, because away from his, I'm trying to show him, away

162

	not feeling judged)	judged, so I put my ideas; so that boost up my confidence and then I start adding a bit more	from his social circle, you know, there is, I'm here. You know what I mean? And sometimes you can't speak to that social circle you need someone outside of it to speak to
			I'm saying listen, 'they're young people, so regardless of what experience they've had, I can 99.5% guarantee you it's just how people are dealing with them', yeah, 99.5 it's how people are dealing with them, you're talking down to them and you're not talking to or with them
Basic psychological needs being met (M1)	Building on existing strengths	the programme is good because I can learn about myself and the mental strengths and skills that I've got already and still progress on them	[MST4Life™] shows what your worth; it shows what you can do; it shows what your capabilities are
	Feeling comfortable in new social situations and with new people	Meeting new people and being able to communicate well with them, being able to be laid back with new people and enjoying the sessions.	The group work, the group work worked great [her] because when I hear her talking out in the group it's great for me to see 'cos that would have been someone who would have sat down there for disappeared or, 'I've got to go to my room', and you don't see her again, something like that. But [they come] to me now and asks me when's MST, so I know that is was working for her,

Social and personal well-being (O1)	Bringing people together	I was just really locked off from everyone. And even though it's once a week [MST4Life™], it's still a bit of socialising and feeling normal, isn't it? So, I like that	from [MST4Life™] … they were just like best mates, and then you socialise in the evening, make your day go a bit quicker, make your life feel a bit better.
			'[they] built some good relationships with a lot of the young people, like you said, [they're] quite involved, quite active, [they're] quite vocal.'
	Building confidence and self-esteem	my self-confidence has gone through the roof, like, it's just nice having people that believe in you'	especially for [them] it was more confidence building and… learning those new skills to be able to confidently go out and speak with people. Because he's had so much knock backs, regarding his like, 'cos he's got a criminal offence
		half the group in there hardly spoke when we first come together, now we're all getting on and everything so. Everybody's confidence has gone, shot up- I've seen it massively	with the [MST4Life™], you know, just having that self-confidence and belief in decision that you're making
Experiential learning opportunities (C2)	Out of house sessions were challenging but beneficial	The thing I really liked about the Cake Sale[15] was going talking to different people… I was actually out of my comfort zone… which was really good, and it gave me [confidence].	[they] done really well with the Cake Sale in terms of going out and drawing people in, and [they are] not one to kind of speak to people, like to talk to strangers.

[15] The Cake Sale activity was an opportunity for participants to plan and deliver a Cake Sale to raise money for a local charity.

		Speaking to new people at the cake sale/ meeting new people… I put myself out there, remained calm and enjoyed myself.	in the morning [they were bright and early, 8.30, ready and raring to go"
	Enjoyment	Having fun and jokes… you ain't gonna get out of bed if it's gonna be all boring and dull. But it gets you up and motivated.	[they've] actually really enjoyed their experience, like no weeks [they've] said to me, 'That was boring'.
		The thing I really liked about the Cake Sale was by going talking to different people, so I don't normally go out talk, I was actually out of my comfort zone by going and talking to people and promoting and encouraging them to buy cakes- which was really good	the [Birmingham] Safari [16]one for her [they] loved that one. No but there's a lot of the sessions that [they've] really enjoyed
A shift towards intrinsic motivation (M2)	Being there because they want to be there	the fact that I've been committed- I've found it so interesting that I've like, I've got really annoyed with myself if I've ever missed a session, and I think I've missed one session… that goes to show something for me, because I can be one of these people that I become interested in something and I've got a bit of a low attention span	the way I know that [there were] definitely on board with the MST was when we had the movie night, when we had the movie night [they weren't] here… then when [they] came back and realised we'd gone [they were] gutted, but [they] caught a cab and came. [They] knew [they were] late but [they] came anyway just to show that, 'I wanna be here'.
	Seeing the personal benefits of the programme	that's what I get from the course, just makes me feel a lot better about myself. And then I can think about things in my life and reflect on it- I like doing that	it was a struggle to get [them] involved, but now he's obviously get happy to get involved because he's contacting us to find out when his next session is

---

[16] The Birmingham Safari session was an urban orienteering activity, where participants have to explore their local city answering questions and finding certain destinations

Psychosocial skills (O2)	Cognitive-emotional skills	my problem solving and my confidence has gone higher than I actually thought it was	Knowing who to communicate to… and what they're gonna need to be able to complete their task
	Transferable skills	for that cake sale, at first, I didn't have a clue with change, but now it's like improved my maths skills.	Teamwork will help [them] as well if [they] comes into employment or even if he's at college.
		built up my confidence when I was doing the cake sale… [at the] university, I thought like be able to speak on their sort of lev-, terminology by speaking their language like being a bit more informal and it's how I put myself across to other people as well	he would have learnt respect from other young people in there and that's what he needs to apply with the young person he'll be moving in with… he used to come across and talk to me in this kind of street talk, I've actually, as we call it, patted him down a little bit and now he comes across better when he talks on the phone… when he's outside for work or he's in college, tutors, round other young people, just apply himself differently and he'll be respected for it… So, I think that he's learned that respect from MST as well
	Social skills	I discovered that I'm actually quite a team player, I'm not fussed about not being the centre of attention, I'm not fussed about being a leader, I'm happy being a member of the team and just doing my part to ensure the team functions properly	[They] engaged well, [they were] motivated in the task of selling, [they were] good in the team playing section

I would recommend [MST4Life™] because it's good for mental skills and also to like, mix with different people from different backgrounds- it's a good skill to have in life

Working together for the different tasks you present, that helps because he's got to listen to other people he's got to get their views; at the same time, they're listening to [them] and [they're] able to get [their] opinion over as well; so, it works really well and yeah I think that would benefit [them].

MST4Life™ Participant Characteristics Going into Phase 2

In line with outcomes observed in Phase 1, there were changes in participants' characteristics going into Phase 2. To distinguish these changes from outcomes driven by programme mechanisms, participant characteristics going into Phase 2 were identified through data that reflected changes in behaviour away from MST4Life™. For example, staff recognised young people were using their time more constructively in their day-to-day lives, such as engaging with other self-development opportunities. When asked if the programme had changed their day-to-day life, one participant reflected on the changes they had made,

> I'm doing more positive things because I'm putting myself round more positive
>
> people. When I first come on the course [MST4Life™], I was chilling with old mates,
>
> still doing good but still chilling round the wrong people, whereas now I've just
>
> totally, like I said before locked myself off, but in a way where I'm still socialising
>
> and I'm not chilling round bad people. So, I've bettered myself in a way.

Some pre-existing personal characteristics were still present, such as mental health issues; however, through taking part in MST4Life™, participants felt better equipped to manage their own support needs (Table 4.3).

Table 4.3.

Example Themes and Data Demonstrating Changes in MST4Life™ Participant Characteristics Going into Phase 2

Themes	Participant perspective	Staff perspective
Using programme resources to support coping mechanisms	the dream team activity[17], it actually helped me because then I knew who to turn to in terms of when I'm feeling low, when I'm happy, all these different emotions.	it's given her the coping mechanisms to make them calls, to make certain decisions, to push for certain things; where before you would have of just, 'ah forget it, I ain't bothered'.
Constructive use of time in day-to-day life	it's kind of helped me get my fitness back into shape as well. So even though it's a course about learning and stuff [MST4Life™] … it's kinda given me a kick on where wanna start doing some better things in my life to get a better life out of what I'm living now	they're doing preparation for work, so before he'd be like, 'that's boring, I don't wanna do it', but now [they're] actually down there… [they're] one of the only ones that said I'm here because I wanna learn to kind of improve my prospects of getting in employment
		From what I see, I mean we don't see them all the whole [time], but from what I see and from what he's telling me, he's gone from, I think it's three grams down to one[18]
Making positive changes in life (e.g., steps towards independent living and employment)	[MST4Life™] is probably gonna help me learn to deal with my patience, be a bit more reflective and hopefully bit more positive and stuff in life, getting the right things done	we've watched [them] grow in front of us and it was clear to see once [they] got her tenancy how [they were] leading on certain aspects of getting the tenancy ready and the sign up and everything, you could just see the maturity
		taking charge… [they've] started to realise [they] need to kind of take charge of everything that's happening in

---

[17] The dream team activity is based on the analogy of a dream team in sport, and is designed to help participants build an awareness of their social support network.

[18] Staff member talking about a participants' reduction in drug use since receiving support from St Basils and taking part in MST4Life™

Probably advising people, because I've, not to do with on the course[19], when I've been speaking to my people and they've told me stuff what's going with them in the life, like I probably said, 'try doing that' or 'I was there and I done this'. So, I've advised them something, but it was nothing to do with the course, just in life all together… because I wanna become a support worker… doing the course has helped me decide that and know what I've got to do to get there

[their] life and the choices that [they're] making… when opportunities are presented… [they evaluate] them and see how important they are in [their] life

[They're] more actively engaged in terms of remembering his appointments and willing to attend opportunities. Like for example today, they're doing preparation for work, so before he'd be like, 'that's boring, I don't wanna do it', but now [they're] actually down there… [they're] one of the only ones that said, 'I'm here because I wanna learn to kind of improve my prospects of getting in employment'

---

[19] When referring to the 'course' in this quote the participant was referring to MST4Life™ and conveying that he wasn't trying to help young people taking part in the programme

Phase 2: OAE Component of MST4Life™

CMO configuration 3: The OAE course (C3) presents two key contextual variables: (a) away from participants' everyday norms; and (b) a range of physical and psychosocial challenges. These variables provide opportunities for participants to intentionally self-regulate (M3) and, in doing so, build psychosocial competence (O3).

Staff, OAE instructors, and young people recognised the value of the OAE component by removing young people from their everyday norms, both geographically and in terms of their day-to-day routines. For young people, being in the outdoors meant engaging in new opportunities and having memorable experiences, "*Jumping into the lake and the reason being because I've never done such a thing… I really enjoyed it.*". However, some participants also spoke of finding it difficult to adjust to their new surroundings, "*I'm just taking each day at a time… it's kind of difficult, so I'm just taking one day at a time.*" Examples like this were rare in the data; however, there was a pattern of participants taking some time to adjust to living with new people during the four-day residential. Challenges were more often discussed in relation to the outdoor activities, most frequently exemplified when participants reflected on the physical challenges of the mountain hike, mental challenges of overcoming fears, and social challenges of working as a team, *"building the raft was quite challenging 'cos the ropes just burnt your hands when you're pulling them tight, so yeah teamwork pretty much helped us through that"* (see Table 4.4. for more examples).

With the support of peers, facilitators and instructors, participants were able to apply intra- and interpersonal skills developed during Phase 1 to respond adaptively to challenges. The process of applying psychosocial skills during the OAE component was the second ripple effect observed in the data and was poignantly captured in one instructor's view:

the programme here [the OAE component] will only work if they've gone through the whole of [Phase 1] because… if they haven't got that already in their thought process about how they're going to tackle things and some of those skills that you guys have worked with them about what to do when they're presented with these challenges… no matter what our content is and how flexible we are at this end if that hasn't been front-loaded, there's nothing to build on.

The instructor who provided this quote had a lot of experience delivering outdoor programmes to a range of audiences; their acknowledgement of the importance of participants being well equipped with the necessary coping mechanisms to thrive in the outdoors is a strong indication of the importance of Phase 1 in MST4Life™. In transferring psychosocial skills to a new setting and a range of different challenges, participants demonstrated the meta-cognitive ability to intentionally self-regulate their thoughts and behaviours to achieve their goals. Subsequently, participants' sense of achievement during the residential was reflected in feelings of competence in a range of domains. For example, the ability to give and receive social support during activities reflected improvements in social competence, "*climbing up the [mountain] today… we've pushed as a team, we've helped each other, and like as a leader again like, I've helped people up and down the rocks*". There was also evidence of improved intrapersonal competence, both situational, such as feelings of achievement in outdoor activities, and global, reflecting one's belief that competence could transfer beyond the outdoors setting (Table 4.4).

Personal Reflections on CMO Configurations in Phase 2 of MST4Life™

I felt the outdoors component was a significant moment in most participants' personal and social development journeys during the programme. However, it is important to acknowledge that not all young people found the residential aspect of the outdoors

component easy to manage. There were some cases of young people finding it difficult to be in close proximity to new people for sustained periods. For example, some conflicts did arise regarding noise levels in the dorms at night. While these were often seen as teachable moments and resolved through group-based discussions, it was an aspect of the programme that participants found challenging. As acknowledged by stakeholders, I also agree that the preceding psychoeducational programme was influential in helping young people overcome personal and social challenges during the residential. Importantly, I felt the link between Phase 1 and Phase 2, in terms of skill transfer and continued development, was facilitated by structured reflections that helped bring their awareness to how young people were using and developing their skills during the outdoors component. Additionally, this was aided by St Basils staff, outdoor instructors, and facilitators, all reinforcing messages of development and transfer in more informal, one-to-one conversations – this was particularly powerful on the mountain hike.

For me, the mountain hike was another pivotal moment in the programme as it offered different opportunities for growth and development. First, as alluded to in the results, the mountain hike was, for many young people, a mental and physical challenge, which had a different personal meaning for each young person. I also recall there being a strong team ethos to the mountain hike; there was a great sense of unity in the groups during the hike and a collective mentality to support each other to complete their personal challenges. For example, young people who, for the most part, were reserved during the programme became natural leaders on the mountain, helping peers and staff physically (i.e., carrying bags) and verbally (i.e., encouragement) throughout the hike. These experiences were impactful for the young people; those who took on leadership responsibilities reflected on the sense of pride and empowerment they experienced, whereas those who were supported reflected on feeling cared for and a sense of belonging with their peers. As for staff, it was important for them to

experience being helped by the young people they usually supported; momentary changes in dynamics of the *helper* and *helpe*d was a powerful experience that helped staff and young people see each other in a different light and build mutual respect.

The other aspect of the mountain hike that helped nurture development was the opportunity for one-to-one conversations. Oftentimes, young people opened up to each other, staff, instructors, and facilitators during the mountain walk and talked about challenges they'd experienced or were experiencing in their personal lives. I recall reflecting on this with staff and facilitators, who both mentioned how walking side by side on the mountain had a less threatening and more open dynamic to conversations compared to being in more formal settings, such as being sat opposite a desk or completing a risk assessment. It was also mentioned by young people how the mountain hike was a kind of metaphorical life lesson for things going on in their lives, the idea that a challenge can seem overwhelming in its entirety, but when broken down, it seems more manageable. There appeared to be a therapeutic benefit to the mountain hike and, more generally, being in the outdoors that nurtured development beyond psychosocial competencies and also prompted moments for self-discovery, reflection, and well-being.

Table 4.4.

Example Themes and Data Demonstrating CMO Configuration 3 in Phase 2 of MST4Life™

First-order theme	Sub-theme	Participant perspective	Staff perspective	Instructor perspective
The outdoors (C3)	Away from everyday lives	the canoeing it's just like a new experience because I've never really done it before	time to reflect as well… [they're] in a different environment, it's a new environment, and it's given [them] a buzz	it's somewhere different… it's somewhere that they can experiment and be someone else
		Would probably have to be the water raft because like, it was a new experience for me	it's good me just to get away… get away from surroundings, get away from work	Part of it is being in a completely different environment, so they haven't got the kind of thought that in a couple of hours they're going to be back in their sort of home environment or with any sort of difficulties that they might be facing.... So they're probably a little bit more relaxed to a certain degree. I guess they're also achieving things which

they've never even thought about

Different challenges through outdoor activities	I would say that the challenges I've faced have been within myself in the sense that you can only accomplish something if you allow yourself to do it and I haven't been, I've been telling myself I can't do it, so then when I can do it, I'm quite surprised (*Mental challenge*)	the challenges as well [at the outdoor centre], like the team-building stuff… understanding that you had to work together to achieve a certain goal and you have to put your work in to help yourself achieve that goal. So, I think the activities played a big part (*Social challenge*)	I don't think it was the mental... I think that because they were slightly unfitter and so I think a part of it was a physical challenge to get there and back (*Physical challenge*)
	The only other challenge I faced was going from the centre to the island in the boat because I've never done that before and I was a bit afraid, like, the boat might flip over and I'll just drowned... safe jacket on so it's just nice… Once I was in there, I was like, 'yeah'. I've done it again on the way back which was nice, so I don't think I'll be afraid of water anymore (*Physical and mental challenge*)		They knew that the weather was fairly harsh and they were just prepared to kind of set themselves another target and getting through it and there was not really any stopping them, they were really keen to go and would challenge themselves and push themselves (*Physical challenge*)

176

Self-regulation (M3)	Behavioural regulation in activities	Mental strength today would be communication and teamwork. And this impacted on my behaviour because like, in the raft building and canoeing we had to like, use communication to help to paddle and the raft building we had to communicate with each other to pass ideas	you've got your three meals a day, you're getting up every morning on time together, you're dining… cleaning together; so, you're accountable to a team	you've got to get up in the morning and to come out in the cold and the wet and... overcoming a challenge, overcoming a difficulty, doing something you're not quite comfortable with
		Well to be honest I've been in a bad mood all day. But, because it's asking me a question, I think it would have to be, keeping my cool. I didn't really want to go on the boats today but I gave it a blast		
	Openness to new experiences	The goal for the few days is to try and complete all the activities, try and participate, even if I don't want to do it, I'll still have a go and communicate more		being willing to commit to do something, I mean that was a terrific effort because it wasn't really her bag, but [they] did give it a go

Competence in a range of domains (O3)	Physical competence	I climbed a mountain today, and I didn't think I'd ever be physically able to do that	At Coniston doing all those sports… [they've] looked at it, 'even though I've enjoyed them and I've found them difficult, I've achieved something	for [them] to be like terrified of the water and actually just get on it and give it a go is more of an achievement
	Cognitive-emotional competence	I can face challenges now that I didn't think I could face before… when I leave here, I face any challenges… in my life, then I know that I will be able to do them because I've become a stronger person from coming here	as a coping mechanism, because… when we went to Coniston, not even 10 minutes, we was there [they] wanted to come home, but [they] didn't and [they] learned how to cope… [they] really enjoyed [themselves]	talking through a lot about what was going on at home… and relating to… being on the mountain and helping other people and seeing that actually maybe, 'I've not been helping my housemates'

CMO configuration 4: Returning to a housing organisation that offers opportunities for further development (C4) enables young people to make positive behavioural changes (M4), resulting in being better prepared for independent living (O4).

The housing organisation provided many opportunities for young people to engage in opportunities for continued development, such as sitting on interview panels when hiring new staff members and youth advocacy groups. This pathway for continued development allowed young people to apply their competencies developed during the OAE component. As a result, staff discussed how experiences during the OAE course served as valuable life lessons for participants and subsequently shaped positive behavioural changes:

> *I'm believing now as a coping mechanism, because… when we went to [OAE centre], not even 10 minutes we was there [they] wanted to come home, but [they] didn't and [they] learned how to cope with staying… and [they] really enjoyed [themselves]… I think that experience of being out in the unknown- out in the Lake District- with nothing, no phone to call nobody or nothing like that, has built some mechanisms… of how to cope when things aren't going your way.*

Staff also discussed how they felt participants were more 'mature' on their return from the OAE component, reflecting how the course helped participants mentally prepare for independent living. One staff member described a very disengaged young person before attending the OAE course who returned from the experience more willing and better able to engage with external services to address alcohol misuse issues (see Table 4.5). Improved engagement with services to address health issues was an example of how participants were better prepared for independent living as a result of St Basils' support and participation in

MST4Life™, *"[they're] in accommodation… been in there for about five weeks now, and*

there's no issues… [they've] not had no alcohol for about eight weeks".

Table 4.5.

Example Themes and Data Demonstrating CMO Configuration four (Follow-Up)

First-order theme	Sub-theme	Staff perspective
Opportunities for engagement after the OAE course (C4)	Contributing back to the housing service	[participants of the programme] were pivotal in all [staff] interviews[20]… and this is all around coming back from the [Outdoor Residential]. So, the maturity levels go up; their expectations go up... before I know they wouldn't have gone and done that
	Positive engagement with staff	[they] would look at stuff like, working with staff as, 'I ain't doing that, I ain't doing that', but now she's progressed that much, [they] now sit on St Basil's interview panel… they've both progressed that much that they're at that level that they're sitting with CEO's
Positive behaviour changes (M4)	Seeking out opportunities for desired progression	Through the MST workshops [they] kind of realised that [they do] like the type of work that you guys do- like engaging with young people… so we've referred [them] to the youth council, and through doing that [they're] kind of doing workshops with the youth council and representing the young people of [the housing service]
		going into the unknown, yeah, whereas before [they] didn't have the confidence to go and do stuff, whereas now [they've] joined up with the St Basil's youth involvement team when they go out a meet other young people for other projects and try and show good practice, and they go to other cities and say what they do in St Basil's and they give speeches, so for [them] to be speaking in them kind of forums is great

---

[20] In St Basils, young people from the service and included on interview panels when hiring new members of staff.

	Self-reflection and self-awareness	And even though [they] left the Residential early also, [they also say] that [they] really enjoyed it… [they] feel that it's taught [them] a lot about [themselves], yeah, to understand when it's time to walk away and go
		And I don't know but I'm assuming when that when they come back to [Birmingham] now, in their mindset they're saying, 'I'm accountable to myself now'
Readiness for independent living (O4)	Active engagement with external services	'[They were] referred to these drug and counselling [services]… but prior to MST and [they] did not engage, not once. But when we came back from MST, we just had a frank talk, frank discussion between us about where [they] is and what [they need] to do in order to move forward
	Transitioning into employment, education and training opportunities	'[they've] doing this Live and Work programme… you can't even recognise [them]: shirt, ties, trousers, shoes- shinning, up, work, glasses on, looking like you've been working the hospital for 20 years. They're saying he's just flourished

Discussion

This study set out to conduct a rigorous evaluation of MST4Life™ to understand how the programme is perceived to work from the perspective of key stakeholders. Interpretation of data collected from participants, housing staff, and OAE instructors suggested a psychologically-informed approach, use of a transfer setting, and an experiential learning framework were core components in driving positive outcomes through MST4Life™. These core components were central to the final set of CMO configurations that provide a theory-informed and data-driven insight into how and why MST4Life™ is perceived to be effective. Analyses also highlighted the role of ripple effects that permeate throughout the programme. Before discussing the results of this study, it should be noted that potential implications that

can be drawn from the findings should be interpreted with caution. The realist evaluative design of this study facilitates causative explanations that are pertinent to the unique context and population under study (Pawson & Tilley, 1997); therefore, broader conclusions about other settings and groups are made tentatively.

The first ripple effect within the programme was interpreted from data collected in Phase 1, where improvements in well-being (O1) were considered a catalyst for a shift towards intrinsic motivation (M2). Subsequently, intrinsic motivation was a mechanism for facilitating psychosocial skill development (O2) in experiential learning activities (C2). Building on previous research, our findings attest to the benefits of SDT-informed practice to support basic psychological needs and enhance feelings of well-being in young people experiencing homelessness (Krabbenborg et al., 2017a; Tidmarsh et al., 2021). Furthermore, the first ripple effect uncovers a novel link between supporting basic psychological needs and psychosocial skill development in participants of MST4Life™. The assimilation of SDT and experiential learning in MST4Life™ identifies how strengths-based and pedagogical theories can work together to foster well-being, intrinsic motivation, and skill development. In doing so, findings contribute to interdisciplinary research in these fields and meet calls for applying such approaches to address real-world problems (MacKenzie et al., 2014). For example, practitioners working in the supported housing services for young people (like St Basils) could consider how an SDT-informed approach could underpin effective interventions for supporting young people who lack independent living skills (Homeless Link, 2018). It should be noted that St Basils has been identified as an exemplary model for care and pathways out of homelessness in youth housing services (Homeless Link, 2018); other services may not have the resources to deliver psychoeducational programmes like MST4Life™. Nonetheless, a free resource with guidelines for implementing SDT-informed practice in housing services

has been produced by St Basils, the MST4Life™ research team, and experts in the youth housing sector (Quinton et al., 2020).

The second ripple effect occurred when participants transferred psychosocial skills (O2) to the OAE component to facilitate intentional self-regulation (M3). This finding elucidates the importance of an appropriate transfer setting to promote developmental outcomes. For instance, the OAE component supported participants' basic psychological needs by ensuring all participants had an opportunity to engage (competence-supportive), using structured reflection to identify how skills could be applied (autonomy-supportive), and providing support during challenging activities (relatedness-supportive). Core features of supporting psychological needs and bringing awareness to transfer opportunities suggest the OAE component created an optimal environment for psychosocial skill development and promotes positive self-perceptions (Pierce et al., 2017). Furthermore, the consistent theoretical approach throughout both phases of MST4Life™ (e.g., SDT and experiential learning) helped create a strengths-based environment during the OAE component to foster personal growth (Passarelli et al., 2010).

Adopting a realist evaluation has brought to light *how* MST4Life™ supports young people to thrive in an outdoor setting. Insights from the programme provide novel theoretical explanations for how OAE courses can promote PYD outcomes in disadvantaged groups, building upon recent qualitative and mixed-method research (Bowers et al., 2019; Mercier et al., 2019). More broadly, the importance of a theory-informed transfer setting can be applied to a broader range of services and interventions that promote healthy developmental outcomes in vulnerable groups.

The second ripple effect also suggests MST4Life™ promotes the required skills to enhance participants' capacity to intentionally self-regulate (Napolitano et al., 2011). To date,

there appear to be no youth homeless programmes that promote or measure intentional self-regulation (Morton et al., 2020). However, the capacity to intentionally self-regulate has been linked to school engagement and reduced risk behaviours (Gestsdottir et al., 2011; Stefansson et al., 2018). Additionally, the capacity to intentionally self-regulate is likely to foster feelings of personal control, which has been associated with improved mental health and the likelihood of exiting homelessness in young people (Slesnick et al., 2017). With the current evidence base in youth homelessness interventions focusing on reducing health risk behaviours (Morton et al., 2020), promoting intentional self-regulation could be a preventative and strengths-based approach to fostering adaptive coping strategies and longer-term positive health.

The MST4Life™ programme shows the potential to offer sustained benefits for participants and longer-term societal implications. Follow-up data suggests participants implemented competencies they developed during the OAE course (O3) to underpin positive behavioural changes (M4) back home – the final ripple effect. Longer-term benefits can be explained through growth in the five Cs of PYD (e.g., competence, confidence, caring, character, connection; Roth & Brooks-Gunn, 2003), leading to behavioural improvements, such as contribution to others and oneself, and reduction in risk behaviours (Lerner et al., 2005). Furthermore, evidence from an outdoor-based life skills programme for at-risk young people suggests mental health benefits can be sustained for up to 12 months (Bowen & Neil, 2016). Our findings support the notion that outdoor-based programmes can be seen as a catalyst for positive health and lifestyle changes for emerging adults with complex support needs (Harper et al., 2019). Moreover, review research and internal evaluations of MST4Life™ suggest feeling a sense of connection with nature is an important process in fostering well-being benefits in the outdoors (Cooley 2015b; Tillmann et al., 2018). Nonetheless, the evidence base for outdoor programmes in groups with complex support

needs is limited. To fully understand the extent to which OAE courses can offer a viable solution to addressing the health inequalities in diverse groups of young people, further research is required.

Strengths and Limitations

Data in this study could have been influenced by the effects of social desirability with the lead researcher (i.e., myself) conducting data collection. To limit the influence of social desirability, data collection was always prefaced with a request for honesty, emphasising the aim of trying to understand the positives and negatives of the programme. The diary room methodology was initially designed to be completed in the absence of an interviewer (Cooley et al., 2014b); however, participants were more willing to engage with this data collection method with an interviewer present. In keeping with the research project's community-based participatory principles, building rapport with participants and facilitating their engagement with the research was prioritised over strict adherence to methodological protocol. Good rapport with participants has been identified as a strategy to minimise social desirability, helping to put participants at ease, facilitate conversations, and improve the accuracy of recall through techniques such as self-disclosure and shared experiences (Bergen & Labonté, 2020). Advantages of establishing rapport with interviewees appeared to be evident in follow-up interviews with staff and OAE instructors due to having shared experiences from the OAE component. However, in other studies, good rapport has led to participants not discussing risk behaviours (Latkin et al., 2016). Triangulating sources in this study helped limit the possibility that certain outcomes (perhaps seen as less desirable) were missed. For example, staff could share insights into young people's lives that they may not have felt comfortable sharing; on the other hand, young people could provide meaningful experiences during the programmes that staff could not convey.

Additionally, data collected from the diary room method should be interpreted with caution for two reasons. First, in line with the programme's strengths-based philosophy, some of the questions posed to participants of the programme may have elicited positively biased responses. The risk of positively biased questions was, to an extent, counterbalanced through triangulating participants' responses with data collected from more neutral questions posed in interviews with staff and the focus group with OAE instructors. However, as previously noted, my role in data collection may have increased the risk of social desirability influencing responses. Second, the brief nature of participants' responses in the diary room limits the breadth of data collected. The diary room method was a form of data collection used to evaluate the MST4Life™ programme based on participants' preferences for it (i.e., seen as less intense than interviews, more engaging than questionnaires, and could be used flexibly in a participant-led approach). Nonetheless, other alternative approaches could be considered, for example, asking participants to record reflective diaries or providing participants with cameras to capture visual depictions of experiences. Future research that explores the efficacy of different data collection methods for evaluating vulnerable groups' experiences during psychoeducation programmes and the outdoors would help broaden the perspectives gleaned.

As is often seen in community-based research, it is difficult to determine the extent to which MST4Life™ was the sole contributor to the outcomes observed; for example, the housing service offered additional courses (e.g., employability courses). Furthermore, there were likely to be uncontrollable and probably impactful changes that occurred in participants' lives (e.g., engagement with work or training opportunities). Complexities and changes in young people's lives also influenced dropout rates and engagement in the programme. Reasons for dropout between Phases 1 and 2 were not recorded as the programme's OAE component was not compulsory. However, data collected from the broader research project suggests common reasons for dropout include: engaging in other education, employment or

training opportunities; gaining independent living; or being unable to engage with MST4Life™ due to difficult life circumstances (Cumming et al., 2021). These same reasons made follow-up data difficult to obtain; for instance, in the three months following MST4Life™, evidence suggests the likelihood that participants will transition into education, employment, and training increases by 30 percentage points when compared to residents of the housing service receiving standard PIE care (Jabbour & Siu, 2019). Future studies that ascertain the programme's impact over more extended periods, and compare findings to a control or comparison group, will add value to understanding the effectiveness of MST4Life™.

Finally, this study is also limited in its use and application of realist evaluation methodology. As the study was not planned or designed with the use of realist guidelines, the study lacks paradigmatic and methodological coherence with underpinning philosophies of realist evaluative research (i.e., realism) and realist methods (e.g., realist interviews; Pawson & Tilley, 1997). However, in adopting realist evaluation principles, this study was able to produce the first set of CMO configurations for the programme, creating data-driven insights into how the programme is perceived to work, which can be tested in future evaluations. Therefore, this study has provided important first steps to establishing programme theories for MST4Life™ and, potentially, a broader theory of change for the intervention as a whole.

Conclusion

MST4Life™ is an example of a PYD programme that harnesses the strengths of community- and outdoor-based settings, aligned with theory-informed approaches, to facilitate positive outcomes for young people experiencing homelessness. Ripple effects during MST4Life™ indicate that as young people experience positive outcomes, such as well-being, psychosocial skills and competence, they become active agents in propelling their

continued development throughout and beyond the programme (e.g., more intrinsically motivated, intentional self-regulation, positive behavioural changes). In utilising realist evaluation principles, the current study has opened the black box of MST4Life™ (Salter & Kothari, 2014), giving light to novel theoretical and applied concepts and explanatory power through a proposed conceptual model. It would be unwise to assume the findings from this study will translate to all young people experiencing homelessness, given the heterogeneous nature of this population. However, practitioners and policymakers working in the youth homelessness sector may want to consider the following recommendations for interventions: (1) implementing a strengths-based, psychoeducational programme; (2) utilising transfer settings that foster psychosocial skill development and meet young people's basic psychological needs (e.g., OAE courses); (3) adopting consistent and complementary theoretical approaches, namely SDT and experiential learning; and (4) growing young people's capacity to intentionally self-regulate.

Chapter 5: A Qualitative Investigation of the Outdoors Adventure Education Component of MST4Life™

A version of this chapter has been published under the following reference:

Introduction

Building upon findings presented in Chapter 4, this chapter aims to understand the role of the outdoor adventure education (OAE) component of MST4Life™ in promoting participants' health, personal growth, and potential for sustained change. This aim was achieved by examining the experiences of participants through the lens of positive youth development (PYD), relational developmental systems theory (RDST), and self-determination theory (SDT). This chapter also contributes to a gap in the literature identified in Chapter 2 of very few outdoors-based PYD programmes for socially disadvantaged young people.

Outdoor-based youth development programmes can promote personal growth and well-being in socially disadvantaged young people (Bowen & Neil, 2016; Bowers et al., 2019; Norton & Watt, 2014; Mercier et al., 2019). However, for those who stand to benefit the most from such interventions, such as young people experiencing homelessness, outdoor-based youth development programmes appear to be underutilised (for a review, see Morton et al., 2020). In part, this can be explained by the prevalence of homelessness in young people during later adolescence and early adulthood (16-25 yrs.; Morton et al., 2018), and the

sparsity of evidence for PYD and outdoors-based programmes for young people during this developmental period (as evidenced in Chapter 3). However, during this critical developmental period, outdoor-based youth development programmes may present an effective solution to a number of inequalities faced by young people experiencing homelessness (Harper et al., 2019; Homeless Link, 2018).

Although outdoor-based youth development programmes are not clearly defined, the complementary styles of working with young people in OAE and PYD are well documented (Sibthorp & Morgan, 2011). For instance, guidelines for effective PYD programmes emphasise the importance of positive youth-adult relationships, leadership opportunities, feeling safe and secure, and providing skill-building activities (Eccles & Gootman, 2002; Lerner et al., 2005). OAE courses also capture many of these core components, with evidence suggesting empowering, supportive and rapport-building climates in adventure programmes facilitate positive developmental outcomes (Sibthorp et al., 2007). Both conceptually and empirically, OAE programmes are thought to promote personal growth in young people, exemplified in psychosocial outcomes such as self-awareness, confidence, social skills, and well-being (Bowers et al., 2019; Bowen & Neil, 2016; Mercier et al., 2019). To understand the role of OAE courses in fostering positive outcomes, RDST is an appropriate theoretical framework (Sibthorp & Morgan, 2011).

RDST proposes that young people's development derives from how personal strengths interact with ecological assets (Lerner & Overton, 2008). Bidirectional relations between a young person and their broader ecology will direct the developmental trajectory, otherwise known as developmental regulations (Brandtstädter, 2006). When developmental regulations are adaptive (i.e., mutually beneficial), young people often experience positive developmental outcomes and longer-term benefits, such as well-being, reduced risk behaviours and depression, and making contributions to their wider communities (Lerner et al., 2005).

Programmes that create adaptive developmental regulations can address mental health inequalities in young people experiencing homelessness, such as reducing the risk of substance use and depression and enhancing feelings of connectedness (Edidin et al., 2012; Rice et al., 2012). In outdoors-based programmes, adaptive developmental regulations are facilitated through the natural outdoor setting, and participants are equipped with the psychosocial skills to adaptively respond to team-based activities (Sibthorp, 2007; Sibthorp & Morgan, 2011). For disadvantaged groups, a sense of belonging and facilitating social development have been identified as key features of OAE courses to promote personal growth and mental health (Bowen & Neil, 2016; Bowers et al., 2019)

Through the lens of PYD, personal growth can be understood as development in the domains of competence, connection, confidence, caring, and character, known as the five Cs of PYD (definitions of the five Cs are provided in Table 5.1; Lerner et al., 2005). Development in the five Cs is associated with indicators of mental health, such as resilience, life satisfaction and well-being in older adolescents and young adults from a range of socio-economic communities (Forrest-Bank et al., 2015; Holsen et al., 2016). PYD evaluations of the outdoors-based programmes suggest the outdoor setting (e.g., connection with nature) and outdoor adventure education (OAE) activities (e.g., team-building, leadership opportunities) can promote the five Cs in marginalised groups (Bowers et al., 2019; Mercier et al., 2019). Furthermore, research with marginalised young people has contributed to expanding the five Cs' applicability in outdoor settings (Mercier et al., 2019). Additionally, the five Cs closely reflect psychosocial and behavioural mechanisms (e.g., connectedness, coping skills) thought to facilitate indicators of mental health through physical activity, such as resilience and well-being (Lubans et al., 2016). More specifically, the five Cs also mirror the psychosocial skills identified by emerging adults experiencing health and intrapersonal benefits from engaging in a wilderness-based intervention (Haper et al., 2019). It may be reasonably hypothesised that

the five Cs can elucidate pathways to promoting personal growth and health benefits for

young people experiencing homelessness when participating in an OAE course.

Table 5.1.

Definitions of the Five Cs of Positive Youth Development

Five Cs	**Standardised definition**	**Application in outdoors setting**
Competence	Positive view of one's actions in domain specific areas including social, academic, cognitive, and vocational. Social competence pertains to interpersonal skills (e.g., conflict resolution). Cognitive competence pertains to cognitive abilities (e.g., decision making). School grades, attendance, and test scores are part of academic competence. Vocational competence involves work habits and career choice explorations (Lerner et al., 2005, p. 23).	Outdoor activities can promote physical competence; Team-based, outdoor activities and challenges can promote social competence; Experiencing and completing new activities can assist in identifying possible career options, promoting vocational competence; preparation for, completion of, and reflection on, activities can promote cognitive competence. (Mercier et al., 2019, p. 43)
Confidence	An internal sense of overall positive self-worth and self-efficacy; one's global self-regard, as opposed to domain specific beliefs (Lerner et al., 2005, p. 23).	Participation and feelings of success in outdoor activities can promote feelings of accomplishment (Mercier et al., 2019, p. 43).
Connection	Positive bonds with people and institutions that are reflected in bidirectional exchanges between the individual and peers, family, school, and community in which both parties contribute to the relationship (Lerner et al., 2005, p. 23).	Support from the coordinating teacher can nurture feelings of connection with the teacher; Strengthened peer connections through group-based outdoor challenges (Mercier et al., 2019, p. 43).
Character	Respect for societal and cultural rules, possession of standards for correct behaviours, a sense of right and wrong (morality), and integrity (Lerner et al., 2005, p. 23).	Respect for oneself, others, property and community developed through all aspects of the challenge (Mercier et al., 2019, p. 44).
Caring	A sense of sympathy and empathy for others (Lerner et al., 2005, p. 23).	Showing peer support during team-based activities can promote feelings of empathy for others.

Contribution	A young person enacts behaviours indicative of the Five Cs by contributing positively to self, family, community, and, ultimately, civil society (Lerner et al., 2005, p. 23).	Young people may become more involved in the school or broader community due to programme experiences (Mercier et al., 2019, p. 44).

Further support for this rationale is provided through the five Cs closely reflecting the psychosocial skills developed through participation in Phase 1 of MST4Life™. As evidenced in Chapter 4, intra- and interpersonal skills were essential in supporting young people to build their self-regulation capacity and positively engage with the OAE component. This metacognitive development is akin to the mental skills training process model applied in young athletes (see Figure 1.2 in Chapter 1; Holland et al., 2018). That is, psychosocial skills underpin participants' capacities to self-regulate and increase the likelihood they will experience a sense of accomplishment during the OAE component, which will promote more enduring qualities and competencies. To understand this process in the context of the present study, the five Cs model will be applied to identify instances of personal growth, and changes in perceptions of health and feelings of resilience and well-being will signify more enduring changes. Furthermore, this process will be strengthened by applying RDST to understand the role of adaptive developmental regulations in underpinning changes.

In addition to RDST, another important theoretical framework to consider is SDT. Findings from Chapter 4 suggested a needs-supportive climate was an important contextual condition for promoting well-being, engagement and skill development. This approach is consistently delivered across both phases of MST4Life™ (Tidmarsh et al., 2021); however, the extent to which a needs-supportive climate shapes the participants' experiences of the OAE course remains unknown. Evidence for applying a needs-supportive climate in outdoors programmes has been proposed in younger ages (≤ 13 yrs.), suggesting an SDT approach can support participants' perceptions of well-being and psychosocial skill development (Barrable

& Arvanitis, 2019; Sproule, 2013). Furthermore, a relatedness-supportive climate in wilderness programmes with emerging adults experiencing complex support needs played an important role in promoting feelings of connectedness and shaping positive experiences (Harper et al., 2019). In studying the OAE component of MST4Life™ through the lens of RDST, the role of a need supportive climate in creating unique adaptive developmental regulations and fostering health outcomes can be understood.

In sum, OAE programmes foster adaptative developmental regulations and subsequently promote personal growth and health benefits (e.g., self-concept, connectedness, resilience). When delivering OAE to young people experiencing homelessness, a needs-supportive climate may be an important ecological asset to nurture feelings of well-being and foster engagement. Previous research suggests the five Cs model can be applied to understand personal growth and developmental pathways to promoting health outcomes through MST4Life™'s OAE component (Mercier et al., 2019). However, the current evidence-based does not fully explain how, if at all, potential benefits from outdoors-based programmes are experienced by severely socially disadvantaged young people; a theory-informed evaluation of the OAE component of MST4Life™ contributes to these gaps in the literature. A qualitative evaluation of the OAE component will provide important participant-centred insights into this study's unique aspects, these being to explore the impact of an outdoors-based programme for young people experiencing and investigating the applicability of five Cs models in an older, socially disadvantaged population. Finally, this is the first interpretivist-informed qualitative study of PYD through outdoor-based programmes for socially disadvantaged young people (more positivist-informed evaluations include Bowen & Neil, 2016; Bower et al., 2019; Mercier et al., 2019). The research questions addressed in this study were,

194

1. To what extent can the OAE component of MST4Life™ promote personal growth and longer-term health benefits?

2. Based upon participants' experiences, to what extent, if at all, are developmental regulations fostered in the OAE component of MST4Life™ (e.g., what are the core ecological assets and what strengths do you people require)?

Methods

Study Design

An intrinsic, collective case study design was used for this study (Crowe et al., 2011; Stake, 1995). An intrinsic case study is when the case is selected based on previous research that indicates processes or social phenomena of interest to a broader area of study (i.e., an intervention or organisation (Crowe et al., 2011). Findings from chapter 4 and other evaluations of MST4Life™ (Cooley 2015b) indicated the OAE component played a significant role in shaping participants' experiences and development while taking part in MST4Life™. Therefore, the OAE component was a phenomenon of interest that warranted further investigation.

In the present study, the OAE component was considered the 'case'; this decision was informed by Yin's (2003) definition of case study research,

'an in-depth inquiry into a specific and complex phenomenon (the 'case'), set within its real-world context. To arrive at a sound understanding of the case, a case study should not be limited to the case in isolation but should examine the likely interaction between the case and its context' (p. 321).

However, Yin's work was not the only research that informed how case study research was interpreted in the present study. For example, Yin (2002) proposes that case

study designs should be designed to maximise "construct validity, internal validity, external validity, and reliability" (p. 19). Yin's positivist terminology and perspective conflict with paradigmatic principles underpinning the present thesis, such as the importance of exploring human experience through the lens of pragmatism and the transformative paradigm (Mertens 2007; Morgan et al., 2014). Therefore, the work of Skate (1995) and Merriam (1998) was also consulted. Merriam (1998) underscored the importance of a case study being "a phenomenon of some sort occurring in a bounded context" (p. 27). Therefore, understanding the parameters of the case is an important component of case study research from a Merriam perspective. The OAE component had clear boundaries; geographically, the OAE course only occurred at the outdoors centre, situated in the Lake District, UK. Further, the OAE component had a predetermined period of time (i.e., duration) and had a clear chronological order in the delivery of MST4Life™. These types of geographical and time-orientated boundaries of the OAE component helped to define it as the case.

Stake's (1995) criteria for defining the quality of a case study are, (1) holistic – the research should consider how the case and the social context interact; (2) empirical – the study should be based on the researcher's observations in the field; (3) interpretive – the researcher should be cognisant and transparent of their interaction with research subjects; and (4) empathic – the researcher endeavours to reflect the vicarious experiences of the subjects as close as possible. These criteria seemed more fitting with broader paradigmatic research stances underpinning this thesis (outlined in Chapter 2) and were used to inform the quality of this case study. First, the OAE component was understood based on the physical and social dynamics it offered, acknowledging the multifaceted elements of the course (holistic). Second, the decision to study the OAE component was informed by previous research and observations highlighting its influential role in the MST4Life™ programme (empirical). Third, the case study has been supplemented with my reflections outlined in Chapter 2 and

the results section of this study (interpretive). Finally, this methods section outlines the steps taken to ensure data analysis aimed to accurately and truthfully reflect participants' narratives (empathic) honestly. With Skate's criteria in mind and taking inspiration from a similar implementation of a collective case study design (see Herens et al., 2017), cases served to build conceptual understanding (i.e., how the OAE component affected participants) as opposed to establishing a representative sample.

As the participants' narratives were fundamental to understanding the OAE component in more detail, data collected from each delivery cohort was considered a unit of analysis. A unit of analysis in case study research can be described as data collected from subjects who play an active role in understanding the case better (Yin, 2002). Across the five years that data were collected, 14 cohorts took part in the OAE component, only one cohort was not included in the present study as no data were collected from participants. Reasons for not participating in data collection were not recorded, but records and field notes indicated a small cohort who felt uncomfortable with completing a diary room entry. Aside from this cohort, no cohorts were excluded. Details of the participants who took part in the study are outlined below, but first, the OAE component is described in more detail.

The OAE Component (Phase 2 of MST4life™)

An OAE component was incorporated into the MST4Life™ programme to facilitate the transfer and continued development of targeted skills in the preceding psychoeducational programme. In the pilot version of MST4Life™, the OAE component was a 3-day/ 2-night residential experience. After evaluating the pilot programme, it was decided that the OAE component would benefit from being extended to four days and three nights. Stakeholders and researchers agreed that the additional time would help participants adjust to their new surroundings and make the trip feel less time-pressured, generally helping to alleviate stress

for participants and staff. Below is an outline of a typical 4-day/ 3-night OAE component.

Day 1

Groups typically arrived at the OAE centre in the early afternoon. Staff and instructors from the OAE centre greeted participants and took them on a tour of the centre's facilities before having lunch together in the centre kitchen (prepared by the centre's chef). After lunch, participants were given time to put their belongings in their rooms before meeting in the outside area to participate in ice breaker and team-building activities. The activities in the afternoon often required only a small amount of physical activity and would centre on learning names and enjoyment. In the evening, pre-prepared food was cooked by a combination of MST4Life™ facilitators, St Basils staff, and participants, while another group would wash and clean up (this was continued for each evening determined by a group-based rota system).

Day 2

The second day started with a team meeting for all those involved in the course (~9.15 am). The team meeting was used to formally introduce all the OAE instructors who would be working with the participants, outline the plan of activities for the days ahead, go into more detail about the agenda for the second day, and reflect as a group on some of the mental skills that could be beneficial for the day's activities and some goals/ best hopes for the day. If there had been conflicts from the previous night (e.g., what was a good time for people to be quiet in the dormitory area), this was discussed to facilitate a participant-led resolution.

Day two of the OAE component usually involved water-based activities, with the first half of the day being dedicated to a group-based canoe trip. Participants would divide themselves evenly between two or three canoes (depending on group size) and embark on a two-mile round trip. The first half of the journey was to a small island on the lake, where

participants would stop for a short break with a hot beverage and a snack before returning to the centre. Upon returning to the centre, participants would have a hot lunch prepared by the centre's chef. Participants, St Basils staff, MST4Life™ facilitators, and OAE instructors would eat lunch together; OAE instructors and MST4Life™ would often use this time to carry out informal reflections, helping to gauge the energy levels and desires of participants to build an idea of what would be an appropriate afternoon activity. The afternoon activities were flexible but typically included high and low-ropes (available at the centre), raft building or kayaking. The afternoon activities were followed up with more structured reflections, which the MST4Life™ facilitators and OAE instructors jointly led. Structured reflections were designed to support participants in recognising achievements, setting personal and team goals, and engaging in group-based problem-solving; these reflections were informed by an experiential learning approach (Kolb, 1984). After having dinner together (i.e., participants, MST4Life™ facilitators and St Basils staff), participants were invited to participate in an interactive diary room (data collection), answering questions to guide their reflections of the trip. Additionally, the evening of the second day was used to prepare for the mountain hike activity the following day; participants would test out hiking shoes available from the centre (if needed) to ensure they were an appropriate fit and prepare a packed lunch to take on the mountain hike (e.g., make sandwiches with ingredients provided by the centre).

Day 3

Day three of the OAE component was dedicated to the mountain hike, which was often seen as the pinnacle of the trip. Like day two, the third day would start with a morning meeting. The purpose of the morning meeting was for the OAE instructors to check in with the participants, trying to understand their mood, energy levels, feelings about the mountain hike, and best hopes for the day. The OAE instructors would also provide a detailed overview of the day, mapping out options for the extent of challenge participants wanted to embrace

during the activity. For example, those feeling highly motivated and physically fit could opt to go to the top of the mountain, whereas those with any physical conditions or ailments that may prevent them from going to the top could opt for a slow pace group or one aiming to get to the half waypoint. After different groups were formed (consisting of participants, and at least one St Basils staff, MST4Life™ facilitator, and OAE instructor), participants would prepare their kit for the day (e.g., waterproofs, bags, hiking boots – all made available by the centre) before setting off in intervals.

The mountain's peak is 803 metres; however, the groups would be dropped off at a start point approximately 200 metres up the mountain. Nonetheless, the scale was still challenging for many participants. Participants would usually be out for the entire day completing the hike (i.e., 4-6 hours); this included all groups regardless of the height climbed, as those who did not go to the top would likely hike at a slower pace. The mountain hike did not have a strict structure; instead, participants were encouraged to consider the team-based element of the activity by supporting others. Once participants had returned to the centre, they would participate in a structured reflection in their groups; the reflection encouraged participants to share how they found the hike, the mental skills they used, and anything they learned about themselves or others during the activity. After having some downtime, the evening consisted of dinner and data collection.

Day 4

The final day of the OAE component started with a morning meeting similar to those conducted on days two and three (i.e., reflection and plans for the day), included two activities, and finished with lunch before leaving the centre in the early afternoon. One of the two activities included the participants completing a joint clean of the centre. The centre has a policy of asking visiting groups (away from the MST4Life™ programme) to complete a team

clean before leaving. The point of the team clean is to encourage respect and accountability for one's surroundings. In OAE components of MST4Life™, this was carried out in smaller groups taking on different areas in the centre and usually completed prior to the final outdoors activities. The final outdoors activities were decided in the group meeting based on what participants wanted to do or achieve during their remaining time. Some activities delivered on the final day included high and low ropes course, mountain biking, kayaking, caving, wood carving, and paddleboarding.

Differences and Similarities When Compared to the OAE component in the Pilot Programme

As previously noted, the pilot OAE component was a 3-day/ 2-night trip. Many of the core components of the programme were similar; for instance, structured reflections after activities, team meetings in the mornings, the mountain hike activity, team clean of the centre, and a rota-based serving and washing up system for dinner. The main difference is that participants had one less day of activities. Participants of the pilot programme took part in water-based activities, including raft building and canoeing. It was decided that the pilot programme did not differ in any major ways that would justify not including participants from it in this study.

Study Sample

Study participants were recruited from multiple cohorts of MST4Life™ over a five-period (2014-2018; Figure 5.1). To be eligible to take part in the study, participants were required to have attended and engaged in Phase 1 of MST4Life™ (psychoeducational programme) and provided informed consent to take part in the research. In total, 113 participants of the MST4Life™ programme were eligible for the current study; from this sample, 52 participants took part in data collection (diary room entry, outlined below), making up the study sample. Participating in the data collection was optional, and reasons for

not partaking were not recorded. An independent sample T-test revealed no significant differences ($p < .05$) in post-test (end of Phase 1 of MST4Life™) scores for resilience, self-worth, engagement, well-being, connectedness, and enjoyment between those who did and did not participate in data collection during the OAE component (for more details of measures, see Quinton et al., 2021). Therefore, although those taking part in the MST4Life™ were a heterogeneous population, results suggested those who did and did not participate in data collection showed no discernible differences based on the effects of Phase 1. Nonetheless, this data does not capture participants who did not complete post-test measures and may have already dropped out of the programme; unfortunately, this data was not available. By virtue of completing the programme and attending the OAE component, it is possible that participants included in the present study were those who had higher levels of self-regulation to engage and commit to both phases of MST4Life™ (i.e., ability to sustain behaviour toward programme adherence; Martin-Ginis & Bray, 2010). Moreover, it is possible participants with higher levels of confidence were captured in this study, as feelings of low confidence have been linked with lower levels of participation in research with vulnerable young people (Renjilian, 2019). This resonates with personal experiences of low confidence being a barrier to engagement with the diary room method.

Study participants ranged from 16-24 years old ($M = 19.43$; $SD = 2.18$) and the majority identified as male (58.7%); two participants identified as transgender. The different ethnicities represented in the sample were: White British (61.9%), multiple or mixed ethnic groups (21%), Asian (4.8%), Black (4.8%) or other (4.8%). Time spent living within the housing organisation before taking part in MST4Life™ ranged from 1 week to 14 months ($M = 5.5$ months; $SD = 3.8$ months). At the time of completing demographic information, the different social exclusion/ inclusion statuses of participants included unemployed (38%), in full-time education (28.6%), in a sponsored training programme (14.3%), unable to work

(14.3%), and in part-time employment (4.8%). Of those who responded to the question ($n =$ 35), 57% of participants reported having a learning difficulty. While participants' mental health status was not recorded, recent UK data suggests 35% of young people experiencing homelessness are likely to have mental health issues (Homeless Link, 2018). Moreover, findings from Chapter 4 indicate a prevalence of mental health issues in young people receiving support from St Basils.

It is also important to note that 11 participants completed the 3-day/ 2-night variation of the OAE component, and 12 participants also contributed data in Chapter 4 (see figure 5.1). Only one participant did complete the OAE component, choosing to leave voluntarily for mental health reasons.

Figure 5.1.

Figure Depicting Participants from Different Years of Attendance
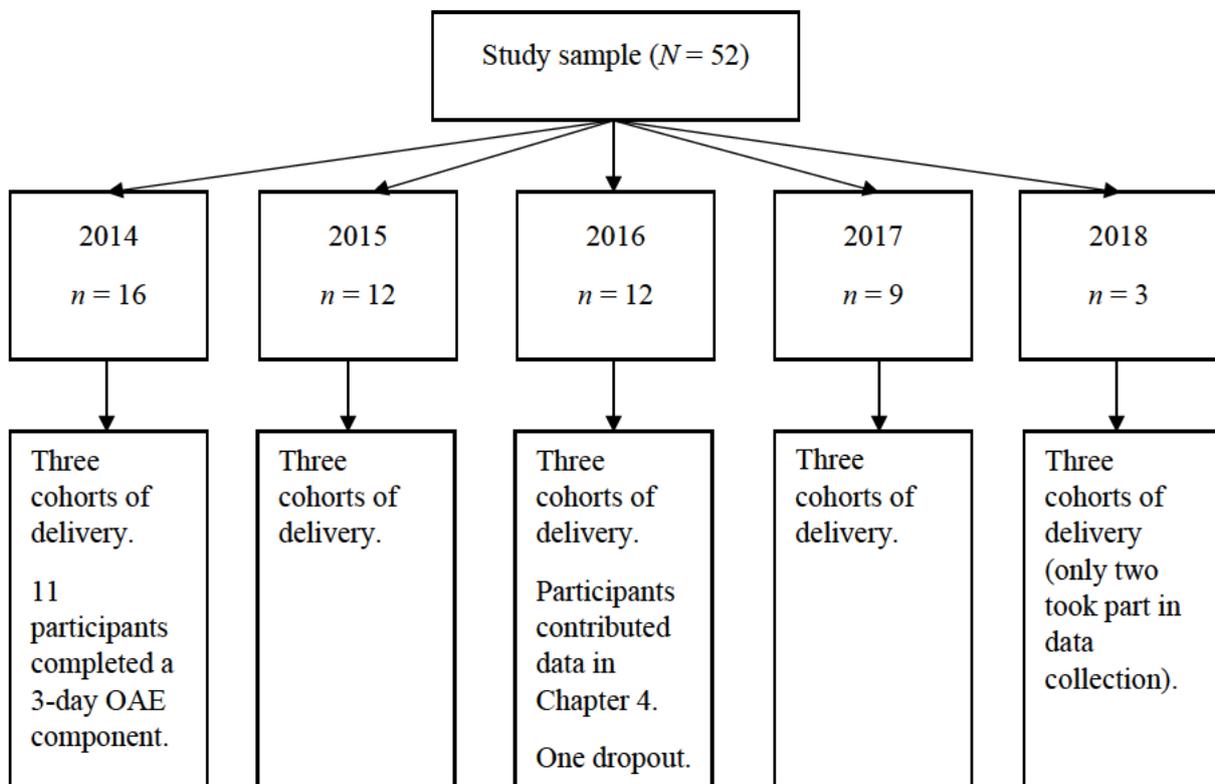
Data Collection

Semi-Structured Diary Rooms

During the OAE residential, participants were invited to participate in semi-structured diary rooms, a qualitative data collection method designed to be informal, engaging, and facilitate reflective practice for participants (Cooley et al., 2014b). For a more detailed outline of semi-structured diary rooms used to evaluate the MST4Life™ programme, see the methods section of Chapter 4. During the OAE component, diary rooms could be completed in different ways to give participants more autonomy during the data collection process. The typical format of the diary room involved participants ($n = 29$) individually reflecting on a series of questions without an interviewer and in front of a camera. Alternatively, participants could opt to have a researcher present to ask questions ($n = 14$), use a peer interviewing approach ($n = 2$) or provide handwritten responses ($n = 3$). As lead researcher, I conducted all diary rooms when participants requested that a researcher ask the questions. The researcher would ask as few probing questions as possible to ensure the consistency of questions asked (and answered) and minimise the potential influence of their presence. Questions used for data collection were strengths-based (i.e., solution- and future-focused) and structured using the Kirkpatrick model of evaluation (i.e., reaction, learning, behaviour and results; Kirkpatrick, 1994). The time participants spent answering questions ranged from two minutes and 14 seconds to ten minutes and 31 seconds ($M = 4$ minutes and 48 seconds).

Kirkpatrick Model of Evaluation

Grounded in programme evaluation research, the Kirkpatrick model outlines an evaluative process in four stages: reaction, learning, behaviour, and results. Reaction reflects how individuals respond to a programme (e.g., how have you found the outdoor adventure course so far?). Learning outcomes captured skill acquisition, knowledge development, and

changes in attitudes (e.g., Have you noticed any changes in the way you face challenges or control your emotions?). Behaviour is considered to reflect how skills and knowledge are transferred to influence actions (e.g., Have any of the skills you developed during Phase of MST4Life™ helped you during this OAE course?) Finally, results are thought to indicate the impact of changes in learning and behaviour in participants in everyday settings (e.g., will you do anything differently back home after completing this outdoor adventure course?). During the five-period, some questions changed due to the action-research and community-based participatory approach of the MST4Life™ project (Cumming et al., 2021). The Kirkpatrick model enhanced the consistency in structure and purpose of questions asked when collecting data. Additionally, the broader research team reviewed all questions to ensure they captured relevant outcomes to the programme and all levels of the Kirkpatrick model. A complete list of questions asked can be found in Appendix M.

Data Analysis

Data were analysed according to interpretivist principles; that is, findings from the data were constructed from the narratives and stories of participants, as well as the experiences and knowledge of the researcher within the research context (Walsham, 1995). From an interpretivist stance, the data were analysed using reflexive thematic analysis (Braun & Clarke, 2019).

All diary room entries were transcribed verbatim. Data were then thematically analysed through an iterative process as per Braun & Clarke's (2006) six-step guide to thematic analysis; these steps are (1) data familiarisation and immersion, (2) generating initial codes, (3) searching for themes, (4) reviewing themes, (5) naming and defining themes, and (6) writing the report. During the data familiarisation and immersion stage, I reflected on my experiences of the OAE component in light of the data, writing notes to challenge my initial

thoughts and further understand the participants' perspectives. With the aid of field notes and reading the data set as a whole, I started to form initial codes; for this process, I did not deviate far from the participants' exact words to ensure initial codes closely reflected the data. Next, utilising visual aids (e.g., photos taken from the different trips) and thematic maps on NVivo software, I searched for meaningful patterns across the codes to identify the foundations for a compelling narrative (searching for themes). Initial themes were then reviewed by considering them in light of the entire data set (i.e., were the themes a good fit? Did any data go uncoded?). Additionally, themes and their respective definitions were presented to colleagues and stakeholders in critical discussions (see below). Based on feedback from critical discussions, I went back to the data set to reassess codes, themes, definitions and the overall narrative from the data.

Building upon their 2006 version of thematic analysis (Braun & Clarke, 2006), Braun & Clarke (2019) proposed reflexive thematic analysis to advance the analytical process. Reflexive thematic analysis encourages the researcher to be more aware of their role in the analytic process (Braun & Clarke, 2019). Through reflexive thematic analysis, themes are constructed based on a researcher's unique interpretations, insights and engagement with the research and participants (Braun & Clarke, 2019). During this process, themes were considered to be "stories about particular patterns of shared meaning across the dataset" (p. 592, Braun & Clarke, 2019); thus, themes are not measured by a percentage of representation but were required to be reflective of patterns and a shared narrative across participants. When applying reflexive thematic analysis, I was cognizant of how my interpretation of the data was influenced by my interactions with participants and how my experiences during the OAE courses influenced my framing of the data. To reflect this, I have concluded the results section with a personal reflection on the OAE component and the findings from the data.

Rigour and Trustworthiness

Self-reflexivity is a core component of reflexive thematic analysis to enhance the transparency and sincerity of the analytic procedure (Braun & Clarke, 2019). More broadly, reflexivity is considered a benchmark of high-quality qualitative research (Nowell et al., 2017; Smith & McGonnan, 2018; Tracy, 2010). In addition to the positionality statement provided in Chapter 2, it is important to disclose my involvement with the different cohorts of participants in the present study. My evolving role in the OAE component of the programme did influence my interpretation of different data extracts. For instance, with data from participants I had attended the OAE component with (as a researcher and facilitator) and, in some cases, directly collected data from, I felt I could build a more nuanced understanding of their experiences. Further, my prolonged and varied experience working with different cohorts during the OAE component (and more broadly throughout all of the MST4Life™ programmes) served to strengthen my ability to cross-reference data with different experiences, perspectives and participants, helping to enhance the credibility of the findings (Lincoln & Guba, 1985) To build a better understanding of data from participants I did not meet, I discussed their data with colleagues who facilitated the OAE course to learn more about participants' different levels of engagement and their experiences during the OAE residential (positive and negative). I have provided a reflexive statement of my experiences during the OAE courses prior to the results section and concluded the results section with personal reflections informed by field notes.

Rigour and trustworthiness were also enhanced through the use of critical discussions with colleagues, a process encouraged in qualitative research to critique the researcher's interpretation of the data (Smith & McGannon, 2018). Critical discussions were used as an alternative method to enhance trustworthiness as it was not possible to complete member checks of findings with participants. Critical discussions were conducted with stakeholders from the housing organisation (e.g., frontline and management staff), including those who

had attended the OAE component and worked with some of the participants. Housing staffs' experiences of the programme and working with participants away from MST4Life™ helped enhance the cultural sensitivity of findings and their credibility.

Additionally, critical discussions were held with the broader research team, who were familiar with MST4Life™, had worked in multiple iterations of the OAE component, and were experienced, qualitative researchers. Input from the wider research team, especially those who have worked with participants in the current study, provided an informed critique of themes and helped shape the findings into a narrative that was considered a truthful reflection of participants' experiences. Finally, the study was presented to other sport psychology and public health researchers at presentations and workshops at conferences. Conducting critical discussions with varied research colleagues offered a broader critique of how knowledge was constructed and strengthened the rigour of the analytic process (Smith & McGannon, 2018).

Another element of the analytic process was triangulating participants' views across a five-year period, serving to enrich detailed descriptions of themes and strengthen their credibility (Barbour, 2001; Tracy, 2010). Triangulating different perspectives over a sustained period of time contributes to establishing trustworthiness and rigour in qualitative research (Denzin, 2010; Tracy, 2010). Moreover, collecting multiple perspectives contributes to a detailed understanding of the case and underpins a rigorous case study approach (Houghton et al., 2013). Further, Tracy's (2010) criteria for establishing high-quality qualitative research underscores the importance of aligning data-driven themes with a theoretical framework to strengthen the findings' explanatory power. The theoretical framework applied during the final stages of data analysis (defining and naming themes and writing the report) was a model of PYD informed by relational developmental systems theory (RDST; Lerner & Overton, 2008). Overarching themes were established deductively based

on RDST in relation to PYD (Lerner et al., 2011). The overarching themes were adaptive developmental regulations, personal growth indicators, and longer-term change indicators. Data-driven themes were analysed inductively to capture the unique experiences and stories of participants. A process of aligning data-driven themes within an overarching theoretical framework helped to establish patterns within the data that were theoretically informed and remained true to the participants' narratives.

Nonetheless, the analytical process of understanding participants' narratives in light of a theoretical framework involved multiple changes and interpretations. First, it was attempted to fit participants' growth during the OAE component into the five Cs of PYD (i.e., character, competence, caring, confidence, and connection; Lerner et al., 2005). However, this felt too reductive and not in keeping with the reflexive thematic analysis that underpinned the data-driven themes (Braun & Clarke, 2019). Instead, after critical discussions with the wider research team, it was decided that, while the five Cs did capture participants' development growth, they were not unique enough reflect the unique experiences of the participants experiencing OAE. After all, the unique aspect of exploring how young people experiencing homelessness experience an OAE course was an element that made the study worthy and each data extract so rich (Tracy, 2010).

Ethical Considerations

The MST4Life™ research project and the studies conducted for this PhD research received ethical approval from the University of Birmingham STEM Ethics Committee (reference No. ERN_13-0834). Before taking part in the study, all participants provided informed consent. Given the prevalence of learning difficulties in the target population, consent forms were also verbally explained, and participants were invited to ask questions.

Participants were also made aware of their right to withdraw within six months after the study had concluded.

Ethical considerations for the research also extended to ensuring all researchers received appropriate training for working with young people experiencing homelessness; this included a bespoke Psychologically Informed Environments (PIE) training course offered by St Basils (Cumming et al., 2017). Moreover, the OAE instructors were also informed of the details from PIE through a tripartite knowledge exchange trip with St Basils members of staff and one senior OAE instructor completing the three-day PIE training (Cooley et al., 2015c). A clinical psychologist with extensive experience working with young people experiencing homelessness and childhood trauma delivered the training. Through PIE, all researchers and one OAE instructor received training in basic psychological techniques (e.g., cognitive behavioural therapy), developed their understanding of how unresolved trauma can manifest (e.g., effects on brain development), and strategies to manage difficult conversations (e.g., how to defuse potentially threatening situations). Building researchers' and OAE instructors' skills and awareness of young people's support needs was a fundamental step to ensuring participants felt safe and secure when taking part in the OAE component of MST4Life™.

Given the complex support needs participants experienced, researchers and OAE instructors were given a copy of participants' most up-to-date risk assessment, along with medical health forms. Participants' attendance at the OAE course was contingent on low-risk risk assessments; however, decisions were taken on a case-by-case basis. For example, if there were participants showing signs of problematic behaviour at the housing service (away from the MST4Life™ programme), the researchers would consult with St Basils staff and OAE instructors to ensure a participant's attendance did not compromise their own or any else's safety. There were a handful of cases in which researchers and St Basils staff worked with participants to establish some ground rules while they attended the OAE component

(i.e., akin to a behavioural contract). However, no cases resulted in a participant being sent home early for bad behaviour and not adhering to ground rules. Moreover, there were two cases where researchers and St Basils staff worked collaboratively with participants to help manage their substance dependence while attending the OAE course. This involved establishing safe ways to manage potential withdrawal symptoms and making participants fully aware that drug use at the centre would result in early dismissal. Of these two cases, one participant returned home early of their own volition and out of fear for potential withdrawal symptoms.

Other ethical considerations encountered during the OAE component were upholding the safety and security of two young people who identified as transgender. Previously, the OAE component had implemented a policy of single-sex dorms and bathrooms. In considering the best ways to support the transgender participants, discussions were held with these individuals and a St Basils member of staff of their choice to find participant-centred solutions. In both cases, participants were happy to have their own bedroom but still in the dormitory area with their peers and have personal use of an accessible bathroom that other participants did not use. Moreover, OAE instructors were told in advance about transgender participants attending and used the appropriate pronouns when working with them.

Reflexive Statement

In the present study, reflexive thematic analysis (Braun & Clarke, 2019) was applied when constructing themes from participants' experiences in OAE component of MST4Life™. As part of this analytical approach, the researcher is required to disclaim their positionality within the research and how this influenced their interpretation of the data (Braun & Clarke, 2019). This reflexive statement provides context-specific reflections to evaluating the OAE residential and builds upon reflections provided in the positionality chapter (Chapter 3)

As the lead researcher, I conducted the main data analysis, consulting with the wider research in critical discussions to reflect upon, refine, and reconsider themes in an iterative process (Smith & McGannon, 2017). However, I was not present in all the OAE course cohorts and, therefore, did not have an active role in programme delivery with all participants. In these cases, I consulted researchers present during the OAE course to build a richer understanding of the participants, contextualise the data, and clarify any points of uncertainty (e.g., if a particular moment during the course was referenced during data collection).

For data collection from the rest of the sample, I held the position of research assistant (e.g., supporting programme delivery and data collection duties) and programme facilitator (e.g., lead role in programme delivery and data collection duties). In preparation for both roles, I received training and guidance to develop my understanding of working with young people experiencing homelessness. First, I received the housing organisation's bespoke Psychologically Informed Environments training, which helped me build a better understanding of the influence of childhood trauma and learn more about psychological tools to respond to young people's complex support needs in an adaptive way (Cumming et al., 2017). Additionally, I received training from fellow researchers and facilitators of the programme on how to support young people's basic psychological needs during programme delivery. Moreover, I received guidance from fellow researchers and housing staff to aid my applied knowledge and structured reflective practice with a clinical psychologist from the housing service. As a result of training, guidance and hands-on experience, I developed theory-informed and applied knowledge of building healthy, positive relationships with participants. Moreover, I believe my genuine passion for working with young people allowed me to have authentic discussions, pathing the way to building genuine rapport and having an invested interest in their development.

Having a hands-on role in delivering Phase 1 of the programme[21], I typically got to know participants well through the OAE course. There was a common trend of participants being more willing to engage in the diary room during the OAE course compared to Phase 1. In part, I believe a higher rate of engagement in data collection was driven by growth in confidence and trust with researchers. For example, participants who engaged with the diary room during Phase 1 usually requested a researcher ask the questions; however, by becoming more confident, these participants were typically more willing to complete a diary room on their own during the OAE course. There were still participants who preferred to have a researcher ask the questions; however, these were often participants who had not engaged with the dairy room method during Phase 1.

In diary room entries where I asked the questions, participants seemed relaxed and happy to engage with me and in my opinion, answered the questions honestly. I believe the rapport I had established with participants played an important role in reducing the possible effects of social desirability (Bergen & Labonté, 2020); however, it is possible that the rapport-building may have resulted in participants withholding sensitive information (Latkin et al., 2016). While my presence may have influenced the responses given (and, in some capacity, likely did), as participants requested for me to ask the questions, it also helped them feel more comfortable engaging in the data collection process, which, ultimately, contributed to building a more enriched understanding of how the sample as a whole experienced the OAE component.

Participants also seemed more comfortable engaging in informal discussions during the OAE course too. For instance, during the mountain walk, myself, other researchers, St Basils staff, and the OAE instructors all reflected on young people opening up about things

---

[21] Psychoeducational programmes that preceded the OAE course

going on in their lives in one-to-one conversations. Informal conversations away from data collection meant I started to get to know the participants on a deeper level. These unstructured conversations were integral to understanding participants' stories in-depth because they helped me learn more about their journeys through the programme and away from the programme. As a result, the data I was left to analyse was much more than just words; it had multiple entwined narratives with similarities and differences, a range of stories and experiences that each told their unique story but also came together to reflect patterns and themes. Notably, the rapport I built with the participants served as an important reminder of my responsibility as a researcher to be mindful of how my interpretation of their experiences and my role in their experiences of the programme shaped the final story I told through the data. Ultimately, what I learned during the OAE course was that it offered participants much greater value than just skill development. During the course, both myself and the participants went on a journey, geographically and personally. While each journey was different, I felt there each participant came away from the course has grown in some way.

In conclusion, I concede that my experiences with participants and involvement in the MST4Life™ programme shaped my interpretation of the data in the present study. However, it was also these experiences and hands-on roles that allowed me to build a deeper understanding of participants' journeys. My invested interest in the participants and the social cause of the research served to reinforce the importance of doing justice to the rich, complex and nuanced narratives of each and every participant.

Results

This section conveys the narrative of participants' experiences during the OAE component, emphasising how, if at all, adaptive developmental regulations were created and changes in indicators of personal growth and mental health. Five subthemes were inductively

constructed from the data and will be explored in more detail (full descriptions of these

themes are provided in Table 5.2). This results section concludes with personal reflections of

the findings and the practical challenges that were present during the OAE component and a

detailed thematic map.

Table 5.2.

Definitions of Data-Driven Themes

First-order theme (deductive)	Sub-theme (inductive)	Definition
Adaptive developmental regulations	*When we are challenged and supported, we grow*	Challenges during the OAE component provided participants with opportunities to grow in the five Cs. Equally as important was the process of being supported through challenges (by peers, staff, and instructors), which gave participants the confidence to embrace new experiences and stretch their comfort zone.
	A sense of escapism and peacefulness in being far removed from everyday lives	In the outdoors setting, participants were far removed from their everyday lives; by embracing this change of scene with an optimistic outlook, participants experienced a sense of escapism and peacefulness in the outdoors setting.
Personal growth	*Social competence – the fertile soil for versatile growth*	This theme reflects the importance of social competence, which, in the data, was reflected in the ability to apply social skills in different situations adaptively. The versatile growth reflects how this core indicator of PYD permeates and facilitates growth in the other Cs (e.g., demonstrating a balance of intrapersonal confidence and socio-emotional awareness of peers).
Indicators of longer-term change	*It's more than just climbing a mountain – fostering positive health outcomes in the outdoors*	Participants' narratives reflected health benefits that can be nurtured from engaging in an OAE setting. For instance, the natural environment promoted feelings of well-being, whilst challenging outdoor activities fostered a sense of resilience, promoted positive physical self-perceptions, and feelings of connectedness with peers.
	Changes in attitudes and intentions – the potential for sustained change	In the absence of follow-up data, this theme reflects how young people's experience in the outdoors had a profound effect on their outlook on the world, their attitudes toward their peers, their aspirations for the future, and intentions to put in place meaningful changes after the OAE component.

Adaptive developmental regulations

The theme of adaptive developmental regulations captured mutually beneficial

relations between ecological assets of the OAE component (e.g., being removed from

everyday lives, experiencing challenges, team-based activities, and needs-supportive climate)

and the strengths of participants (e.g., psychosocial skills developed in Phase 1 of

MST4Life™, sense of optimism). Ecological assets reflected core elements of the OAE

component that participants saw as influential in fostering personal growth, promoting

indicators of mental health, and facilitating the potential for longer-term change. The

participants' strengths were personal constructs that enabled positive engagement with

ecological assets. The resulting adaptive developmental regulations are best described in two

subthemes, (a) when we are challenged and supported, we grow, and (b) a sense of escapism

and peacefulness in being far removed from everyday lives.

When we are challenged and supported, we grow

Participants' journeys of personal growth through the OAE course appeared to be

driven by mutually beneficial relations between challenges, a needs-supportive climate and

psychosocial skills developed during Phase 1. Specifically, participants discussed the OAE

instructors' role in creating a needs-supportive climate through a challenge-by-choice

approach (Russell & Bisson 2003). An autonomy- and competence-supportive approach by

the instructors enabled all participants to engage in activities and experience a personal sense

of challenge; for example, one participant reflected, "*they [OAE instructors] know that*

everyone's different and they know that everyone has different comfort zones" (Participant 1).

Participants experienced feelings of autonomy through having a sense of personal

responsibility for the level of challenge they embraced. In addition, feelings of relatedness

were nurtured through experiences of overcoming challenges with the support of staff and

peers, "*I used to be nervous, but the help of my friends and staff, they've encouraged me a lot to do it*" (Participant 2). A needs-supportive atmosphere encouraged participants to apply the social skills they had developed in Phase 1, and, as a result, participants were able to function effectively in team-based challenges, "*learning to be more of a team player has come into help here [OAE course], so I know what to do and I helped people*" (Participant 3).

Challenges were present during the outdoor activities and also arose from the residential aspect of the course. For instance, some participants found living in close proximity with different people challenging; however, attending Phase 1 of MST4Life™ helped them to adapt to the social conditions, "*through the 10 weeks of the training[22]… I wasn't always around people that were my friends, but it's learning to adapt and support them anyway because we're here as a team*" (Participant 4). Entering into the course with psychosocial skills to work and cohabit with each other meant participants themselves also contributed to the relatedness supportive climate through building a sense of community and social cohesion, "*the atmosphere in the group is just like really tight and get on really well… if one of us feels down… we all go and check on them*" (Participant 5).

A sense of escapism and peacefulness in being far removed from everyday lives

A mutually beneficial relation that underpinned positive experiences during the course was an interaction between being removed from everyday lives and participants' sense of optimism, "*it's very rarely that as a city girl you get to come to somewhere like this and experience what we have. So, why miss out on that opportunity?*" (Participant 4). This extract reflects a common outlook of enthusiasm and a sense of adventure when embarking upon the OAE course, with participants seeing the experience as a "*chance to get away*" (Participant 6). Participants mentioned how the novelty of the outdoors environment, having new

---

[22] Phase 1 of MST4Life™

experiences and connecting with nature were features of the OAE course that were beneficial for their own and others' well-being, "*I think coming here will give a lot of people a peaceful state of mind, because being in the city, everything's all fast-paced, everyone's rushing everywhere*" (Participant 7). Recognising the outdoor setting's therapeutic benefits was a common pattern; exemplified by one participant who spoke of feeling a sense of "*peace and sanctuary*" (Participant 8), which they struggled to find in their home living conditions. For a group of young people accustomed to an urban environment, some having never left their home city, embracing their new surroundings with a sense of optimism promoted engagement in activities, and maximised their potential to experience personal growth.

Personal Growth

The theme of personal growth describes how adaptive developmental regulations during the OAE course promoted the five Cs of PYD[23]. In particular, participants' experiences demonstrated a pattern of social competence underpinning development in other domains. Social competence involved participants adaptively applying social skills to help themselves and others thrive. The social skill of giving and receiving social support, for example, was pertinent to participants' narrative of personal growth:

> *Rock climbing was really good. It was nice to help someone up there and know they've accomplished something and faced their fears, it was good to know that I helped them do that. That was better than me actually doing it myself.* (Participant 9).

Team-based activities provided leadership opportunities embedded within a broader need supportive climate, resulting in participants experiencing balanced development across the five Cs. For example, participants were learning to lead with *confidence* while also being attentive to others' socioemotional needs (*caring and character*); this was poignantly

---

[23] Throughout the section, the five Cs are highlighted in italics

reflected in one participant who recognised there was more to leadership and teamwork than "*just giving orders*". This participant went on to say how they had learned the importance of being considerate of others, which prompted changes in how they engaged in team-based activities, "*I've done more caring, I haven't put myself first like I usually do, I've thought of other people around me*" (Participant 10).

Growing in their capacity to care, support and work effectively with each other (*connection*), Participants thrived in outdoor activities, reflected through feelings of personal and team accomplishments. In the process of achieving goals, participants spoke of how their sense of self-belief (*confidence*) grew through experiencing support from their peers, "*they said… 'you can actually do it, and we know you can and please don't give up'. I was like, wow, my group actually believes in me*" (Participant 11). During challenging activities, peer support was frequently seen as a source of boosting self-esteem and feelings of competence. No recorded data suggested social support was perceived as peer pressure, which indicates participants were learning to give social support appropriately and, in turn, being more *caring* and feeling more *connected* with others:

> *my attitude against people is gonna change, you know, give people a chance and help*
> *people more, if they're struggling rather than just leaving them… encourage them,*
> *help them.* (Participant 12).

Besides giving and receiving social support, other social skills, such as listening and communication, helped participants experience balanced development across the five Cs. For instance, effective communication was an indication of improved social awareness and a way of conveying respect to peers (*character*), "*you have to be respectful when approaching certain matters… instead of you talking all the time, just sit back and get them to observe to the environment, just get a feel how to manage certain situations*" (Participant 13). Improved

220

social awareness in team activities fostered feelings of *confidence* and *connection*, especially

for more reserved members of the group:

> *normally I'm just a person who sits in the back of the room and just won't be heard,*
> *but… I've got to know everyone, I've got really like, got like a little connection with a*
> *few people… we're working together, we're taking each other's opinions.* (Participant
> 10).

Effective communication and giving social support also laid the foundations for

participants to feel more connected with staff[24], particularly with housing staff. Participants

frequently saw housing staff as adults who helped them to manage the complexities in their

home lives. However, when taking part in the outdoor activities together, young people had

the rare experience of being able to help staff, experiencing a shift in their role from being the

helped to the *helper*. This process broke down views and expectations of *the other*, serving to

empower young people and promote positive adult-youth relationships:

> *not a barrier at all between staff and residents it was more like a natural division, but*
> *as the days have gone that's like started to completely disappear and I think that's*
> *because a lot of the young people have realised that we're not different.* (Participant
> 4).

Indicators of Long-Term Change

Indicators of long-term change were reflected through health benefits (e.g., well-being

and resilience) and changes in attitudes and intentions (e.g., the sixth C of contribution). A

pattern in participants' narratives suggested longer-term changes were facilitated by learning

new things about oneself and intrinsically driven motives for change. Subsequently,

---

[24] Staff here refers to MST4Life™ facilitators, OAE instructors, and housing staff who supported the OAE
component

indicators of longer-term change were reflected in two separate but entwined subthemes, a) it's more than just climbing a mountain – fostering positive health in the outdoors, and b) changes in intentions and attitudes – the potential for sustained change.

It's more than just climbing a mountain – fostering positive health outcomes in the outdoors

This subtheme reflects improvements in well-being across physical, social, and mental health domains facilitated by engaging in the outdoors setting and OAE activities. The mountain hike, in particular, was seen by participants as the pinnacle of the OAE component as they prepared to scale the second largest peak in the area. Subsequently, the activity was most frequently referenced for its sense of challenge and achievement (both mental and physical), providing meaningful experiences, and often seen as the catalyst for change:

> *it's made me realise I'm actually a lot stronger than I thought I was, both physically and mentally in the sense that I climbed a mountain today and I didn't think I'd ever be physically able to do that… I think that was a test of mental strength more than anything, like determining if it was worth it or not, going through physical pain to get that sense of accomplishment, and it was.* (Participant 4).

Climbing the mountain instilled physical competence, leading to a sense of pride and personal fulfilment, helping participants to identify with personal strengths and develop more positive self-concepts, "*my mindset has changed, before I used to always give up, but now I have learned determination, I've learned to prepare within myself and just try my best*" (participant 14). Participants experienced feelings of resilience in overcoming challenges and recognising achievements beyond their expectations; when reflected upon, these experiences were often seen as powerful life lessons:

> *I've learned that no matter how big a task, a mountain… if you've got enough desire and will to tell yourself to do it or to tell yourself to take each step, and one foot after*

222

another, then I'm pretty sure you're gonna be alright with other things in life really…
train yourself to be mentally resistant in hard tasks. (Participant 15).

Participants' perceptions of self-worth and resilience after overcoming challenges were closely linked to well-being in various domains. For example, feelings of social well-being were reflected in a sense of belonging with peers having been through challenges together and achieved a sense of accomplishment, "*it's a big achievement at the end of it. It kind of helps… if ya really determined, but the determination in numbers really I think more than anything*" (Participant 21). Additionally, feelings of satisfaction, enjoyment and a sense of reconnection with oneself were indicative of participants experiencing personal well-being:

> *I've learnt how to be myself again, because I was never really me, I never really did the things that I like to do- like climbing rocks, going in the water, doing all the stuff that I like to do.* (Participant 16).

> *I've found it good and positive, in the way I feel and think. It's something that I've never done before, something that I was scared to try, but it's something that I'm proud that I'm doing at the moment.* (Participant 22)

Changes in Intentions and Attitudes – the Potential for Sustained Change

Experiences during the course also shaped participants' desires to make changes when returning home, reflected through intentions to make positive contributions to themselves and their wider communities. These intentions stemmed from changes in how participants viewed themselves and others, with the potential for longer-term change underpinned by many participants holding intrinsically driven motivations:

223

I think that's kinda made me re-evaluate and recognise as well my own capabilities, and I think it's really like affirmed within me that I don't want to be defined by my fears, don't want it, to be limited like, I want to keep pushing myself. (Participant 4)

An intrinsic drive was also reflected in desires to adopt a healthier lifestyle following the OAE course, "*make a conscious effort to eat a more healthy diet, drink more water… just do a bit more exercise because the feeling afterwards, I felt amazing*" (Participant 4). Outdoor activities enabled participants to engage with physical activity in a novel way, prompting them to question their preconceived notions of what it means to be physically active and healthy. A similar process was observed when engaging with nature. At first young people were cautious and, in some cases, reluctant. However, towards the end of the course, many participants spoke of appreciating the mental and physical benefits of spending time in the outdoors and expressed an intention to make more conscious efforts to engage with nature when they returned home:

I will go out more, like find more places like this… I'm calmer here, so I think when I get back to [home], I'm gonna try and maintain that calmness… go out on an adventure and have more breaks away. (Participant 17).

Indeed, many participants experienced socio-emotional benefits during the course, including a sense of calm and peacefulness from being in a natural environment. The OAE component also helped participants change their perceptions of how they interact and work with new people, with participants recognising the transferability of the social skills and identifying areas in their lives where they could be applied:

once I go from here, I can take all this sort of, communication skills, teamwork, all this put it into real life, go into to work, how to make friends, and how to communicate with people and having respect to one and other. (Participant 18).

As this extract suggests, participants demonstrated an awareness of how the social skills they had developed could be applied in other settings and intentionality to do so. Moreover, their narratives also reflected more subtle changes in social attitudes that could be transferred beyond the course. For instance, positive social dynamics during the course contributed to challenging participants' preconceptions and expectations of others, "*I always just assume people are going to be horrible until you get to know them. And all of these people are nice when you get to know them*" (Participant 19). Breaking down negative social expectations helped participants understand each other and work more effectively as a team. These positive social experiences appeared to leave a long-lasting impression on participants, fostering social attitudes and behaviours that were more empathetic and compassionate:

> *my attitude against people is gonna change, give people a chance and help people more if they're struggling rather than just leaving them… Encourage them, help them. I'm gonna bring that with me definitely.* (Participant 20).

Personal Reflections

These personal reflections are based upon a combination of field notes and reflexive notes were taken while analysing data.

Reflecting on Themes and Experiences

When constructing themes and coding data, I was always mindful to incorporate my experiences of working with participants during the OAE component, aiming to convey the inspirational experiences of growth I witnessed. There were many occasions where I saw participants transform into more confident, self-aware, socially aware, and better versions of themselves during the course, and I felt this often came down to core components of being supported, giving support, and having opportunities to thrive. From my experience (and in the data), a theme of support was such a prominent feature of participants' narratives; giving

support made them feel empowered, worthy, and competent. On the other hand, receiving support reinforced a sense of being worthy, but also a sense of belonging and not being left behind. When analysing the data, I was reminded of uplifting moments of accomplishments centred on a team ethos and a sense of togetherness. Giving that support was such a strong theme; I wanted to portray more than just social skills and explore the concept of social competence. For me, social competence was reflected in the data and my experiences of participants using social skills *effectively*; it was a blend of being socially aware and intuitive to social cues and then responding appropriately and with intention. For me, participants who demonstrated social competence during the OAE component didn't just thrive themselves, but they also implicitly and explicitly allowed others to thrive too.

Challenges Encountered During the OAE Component

While findings from this study reflect a positive impact of the OAE component, there were also challenges encountered. For example, some conflicts arose from participants living in close proximity to each other for four days. While these conflicts were often used as teachable moments and managed through solution-focused, group-based discussions, it was not uncommon for some fractures to occur, especially on the first night. An example of a conflict that arose was when participants had different times they wanted to go to bed and, given the close proximity of bedrooms in the dormitory areas, this led to some tension and conflict (i.e., noise complaints from those going to bed earlier than others). However, this was overcome in two ways: first, a member of St Basils staff (and usually an MST4Life™ researcher) would stay up late to help manage potential conflicts that occurred at night. Second, participants were encouraged to use different spaces in the centre if they were not ready to sleep, such as the games room and lounge area. Furthermore, these issues were often raised in the morning meeting, and staff would work with participants to find a solution that could be implemented moving forward.

Another challenge that occurred for some participants was feeling overwhelmed by the experience. For example, some participants struggled to adapt to the new environment, the amount of physical activity during the day, having an earlier than usual morning routine, and living with new people; this usually resulted in participants feeling homesick or generally having low energy. Nonetheless, these cases were managed effectively by the St Basils staff, MST4Life™ researchers, and OAE instructors. For example, efforts were made to adapt activities to meet young people's needs and energy levels. Moreover, St Basils staff were a much-needed member of the team to provide one-to-one support for participants. Oftentimes, negative feelings were transient, and it was a case of some participants taking longer to adjust and being further outside of their comfort zone than others. I believe the psychologically informed approach taken by all staff members was fundamental in supporting participants through low moments. Additionally, as the data suggested, thriving participants often helped build a psychologically informed approach and provided moral support to their peers to help facilitate engagement and improve mood.

Table 5.3.

Thematic Map of Results

First-order theme (deductive) *Second-order theme (deductive)*	Subtheme (inductive)	Data
Adaptive developmental regulations		
Ecological assets	Needs-supportive environment	The staff have been very supportive. They've been like friends rather than authoritative figures. They've encouraged us, supported us and they've put up with a lot of our frustrations (Participant 4)
		[discussing staff support] They're pretty understanding because they know that people, that everyone's different and they know that everyone has different comfort zones. You know, someone just doesn't like being outside and that's their comfort zone, just to get them outside is getting them out of their comfort zone (Participant 1)
	Team-based activities	the highlight of my first day is raft building, 'cos it's all about communicating and like outdoors thinking, creativity, it's like you had to work hard and create ideas like how to build it (Participant 17)
		when we done team challenges we all literally had to work as a team listen to other ideas and pretty much just work as a team, helping each other. So, I think my team skills will help throughout out the whole of the programme (Participant 38)

	Experiencing challenges	I'm glad I did something that I don't usually do. Something which is challenging and out of my comfort zone. So, I'm glad I participated. (Participant 4)
		The challenges we overcome was building a boat, little boat and we had to work as a team and listen to one and other, and I was having a bit of difficulty because I got a bit of hearing problem, so I had to focus more on what my teammates were saying and take their advice (Participant 21)
	Being removed from everyday lives	I've actually enjoyed being out here and actually being around the kids and not in the city. Like we ain't been on no buses, not even got a taxi nowhere, we've literally walked everywhere. And I feel good for doing it (Participant 7)
		Its more, nice to get out of city life, than anything and come to the country. (Participant 37)
Strengths of young people	Optimism	I'm feeling good about the next days, looking forward to the sessions. I'm always looking forward to sessions, they're always fun. (Participant 2)
		'it's very rarely that as a city girl you get to come to somewhere like this and experience what we have. So, why miss out that opportunity?' (Participant 26).
	Skills development in Phase 1 of MST4Life™	mental skills helped to teach me about planning ahead. So, I normally forget loads of stuff when I come away on residential's but this time I've actually got pretty much everything (Participant 9)
		They [skills developed in Phase 1] probably did help me with the hiking with the coming down and that because like I said I've had to come off my tablets, so when my anxiety kicked off at the top of the mountain it wasn't exactly feeling very good- for a moment there I thought I wasn't gonna make it… I managed to just remember a few things that I'd learned, not just from here, but from other places and like put it all together. And of course I had the help of the two instructors (Participant 27).

Mutually beneficial relations	When we are challenged and supported, we grow	my biggest challenge was doing the crates. The crate climbing. I climbed to the top of the bloody mountain 'cos I am so scared of heights… like after everybody's support I needed to get to the top of the crate… So I did that and like and basically I just overcome my fear of heights because everybody was just so supportive (Participant 3)
		in order to overcome challenges I think you have to have a really strong team around you, not always I mean you can overcome challenges within yourself but when you've got the support of those people around you (Participant 26)
	A sense of escapism and peacefulness in being far removed from everyday lives	like climbing up the mountain… and just looking down and seeing the ocean on the other side and all that kind of stuff, it was quite tranquil and therapeutic- I loved it, I really do. Its helped a lot (Participant 10)
		I think coming here will give a lot of people a peaceful state of mind, because being in the city, everything's all fast-paced, everyone's rushing everywhere (Participant 2)

Personal Growth

Balanced development of the five Cs	Social competence – the fertile soil for versatile growth	I realise there's just more to like, to like just giving orders. You can always push yourself even if it's hard like, so obviously example init, climbing up the [mountain] today like, we could have all easily just given up half way and been like that's it, but obviously we've pushed as a team, we've helped each other, and like as a leader again like, I've helped people up and down the rocks and managed to get to top. I think the last couple of days, like I think it's more of like, I think I've done more caring, I haven't put myself first like I usually do I've thought of other people around me (Participant 10)
		I haven't really faced challenges yet, I get more stuck into it if it's with a team, like when I wouldn't have before… I'm learning to be more of a team player, so therefore if somebody is a little bit annoying or just generally being, I don't know, a bit

aggravating I just, you know, take one for the team I just calm down and know that we're all here and work together… so I think I've done it alright (participant, 23)

With challenges yeah, like normally I just sit, like normally I'm just a person who sits in the back of the room and just won't be heard, but, like now like, I've realised I've got to know everyone… got like a little connection with a few people init now, like me group we've just, we're working together, we're taking each other's opinions not just like, 'ah let's do it this way', 'shall we do it that way?' We take your other options and we try our own and see which ones work, at the end we come up with the best thing. And like with emotions, like yeah, it's frustrating but like, when I'm with people that don't wanna do something, so obviously I'll come spoke to them and they've managed to come on the activity with us. I've had a chat with them and made I've them realise basically, there's no point in just sitting there (Participant 10)

Be patient, be patient with other people because some people might have different rates of learning and if I'm working as a team with someone, make sure you encourage them and treat them the same way I want to be treated (Participant 17)

I've become more creative by giving ideas, sharing ideas and sharing my views about the activities which we are doing. And still listening as well, with a lot of communication going on and things are going well. And I really appreciate my teammates as well for the teamworking. We are working together and we're achieving what we want, because we're working as a team. There was a lot of motivation, encouragement and pushing each other the furthest (Participant 24)

Connection	Having a strong sense of connection with others, a sense of belonging, and social cohesion	I love the fact that we're all here together, I love the fact that we've formed a little community [laughs], and I love the unity between everyone like, we're all supportive of each other (Participant 26)

231

just speak to more people, get to know everyone else because everyone else is in a similar position as me- we all probably didn't know anyone but we're all leaving as friends. (Participant 4)

Competence	Self-regulation skills to effectively prepare, adaptively response, and reflect with awareness (cognitive competence)	I've learned that if there's a task that you need to do and you know it's gonna be a hard… the best way to kind tackle it is… prepare for it as much as you can and be organised. And try and stay positive as well, about the way you feel (Participant 8)
		I think more productively now, I don't like, think negative. Well I do still think negative now and then… I try to think as much positive as I can to be honest, and MST's helped quite a lot. Sort of like, look at the other options, so it's like think about it before you do it. That's sort of what I've learned from MST (Participant 10)
	The ability to apply social skills to adaptively function in a range of social situations (social competence)	communication and feeling more confident, before I would have just done things on my own but now I'm more on confident working with other people, so asking people what they think, if there's a better way or just putting my own input into it (Participant 4)
		social skills. Like, you know, speaking to people a lot better with more confidence, I think that's helped a lot throughout these three days. Especially with certain people that, doesn't seem like they want to listen and want to learn (Participant 53)
	Having a sense of physical accomplishment through participation in outdoor activities (physical competence)	the mountain trek was particularly challenging because I was pushing my body to greater lengths to get up there… But I managed it, so I conquered that one, so I'm pretty pleased about that (Participant 11)
		mountain climb was a challenge… because we only got about a third of the way and I'd already had enough really so I had to try and get myself through that bit- which wasn't easy. But you know, it's a big achievement at the end of it, so, and it kind of helps ya stay focused really, if ya really determined, but the determination in numbers really I think more than anything. (Participant 8)

Confidence	Experiencing feelings of self-belief, self-worth and/or self-efficacy	The thing I've learned most about this course- would be to believe in myself really. Because before this course I wouldn't believe in myself but now I've learned I can do what I want to do if I just believe (Participant 13).
		I have gained a lot of confidence. There are some activities that I didn't think I can do but today I've realised I can do because of the encouragement which has been given to me by the staff and my teammates as well. (Participant 40)
Caring	Demonstrating empathy for peers or showing support both during and away from activities	Everyone, like, is patient, the way that everyone has their limit. So if they don't really wanna do something, they'll try and encourage them to do it. And try and give it a go at least. And then…if they don't want to do it then that's fine (Participant 5)
		the atmosphere in the group is just like really tight and get on really well. And, like, if one of us feels down or anything then we all like, we all go and check on them and that (Participant 3)
Character	Showing respect for peers and adults on the trip	you have to be supportive no matter of your personal opinions or feelings towards an individual or, whoever, or an activity for example; it's just kind of like keeping a positive mind-set and trying to rub that onto others (Participant 33)
		I have actually noticed, because if was just back at home and I'm or someone else is trying to explain something, and certain people are not listening or paying attention and disturbing the whole group… I would have told them to shut up, where to go, where to stick it, but you can't do that. You just have to ask, you have to be polite and you have to have respect (Participant 53)

Indicators of longer-term change

Mental, physical and social health	It's more than just climbing a mountain, fostering health	the mountain trek was particularly challenging because I was pushing my body to greater lengths to get up there, I mean… But I managed it, so I conquered that one, so I'm pretty pleased about that (Participant 11)

	benefits in the outdoors	I realise there's just more to like, to like just giving orders. You can always push yourself even if it's hard like, so obviously example init, climbing up the [mountain] today like, we could have all easily just given up half way and been like that's it, but obviously we've pushed as a team, we've helped each other, and like as a leader again like, I've helped people up and down the rocks (Participant 19)
Contribution to one's self and those around them	Changes in attitudes and intentions – the potential for sustained change	I'm hoping I will do things differently when I get home, after completing this course- I'm hoping to change my life, for the better, get out once and for all and not really look back (Participant 16)
		once I go from here I can take all this sort of, communication skills, teamwork all this put it into real life, go into to work, how to make friends and how to communicate with people and having respect to one and other. And having like a good listening skills, because listening skill is the most important skill to have when working as team because if you don't have then you will not successful at work and whatever you're doing, by doing these sort of activities, helped me a lot (Participant 21)
		my attitude against people is gonna change, you know, give people a chance and help people more if they're struggling rather than just leaving them, letting them doing it themselves. Encourage them, help them. I'm gonna bring that with me definitely (Participant 53)
		I think that it's kind of made me realise in myself that there's a lot of things that I want to change; so as you can tell by my voice, I've suffering a bit with my asthma on my chest, but it self-inflicted – I'm going out there and I'm smoking and I'm wheezing like this. When I get back I'm not gonna say I'm gonna cold turkey and that's it I'll never smoke a fag again but I'm gonna make a conscious effort to eat a more healthy diet, drink more water – rather than relying on tea and coffee, just do a bit more exercise because the feeling afterwards, I felt amazing like I felt so good getting off the

		canoe after coming back on that other trip was something I thought I would never ever do (Participant 33)
Mental health	Feelings of life satisfaction, enjoyment, and personal well-being	I've found it good and positive, in the way I feel and think. It's something that I've never done before, something that I was scared to try, but it's something that I'm proud that I'm doing at the moment and that I have done it. The reason because I done it is because it's exciting, it's something new (Participant 13)
		I've learnt how to be myself again, because I was never really me, I never really did the things that I like to do- like climbing rocks, going in the water, doing all the stuff that I like to do when I was kid, so it brought back some memories. So yeah I learned how to be myself again (Participant 12)
	Identifying with personal strength, such as resilience	I've learned that about myself that I have, that I can achieve what I want to achieve and that no matter how hard things get I know that I can still do it; 'cos I'm a strong person (Participant 32)
		I've learned more about making sure I push myself instead of thinking, like when you hit a… when I hit a barrier I've got to make sure I overcome that if I can or try my hardest to (Participant 6)
Physical health	The course having a positive influence on participants' perceptions of physical health	Makes you more fit, makes you use muscles that you didn't even know could work (Participant 7)
		it can also help, you know, get them into kind of an exercise, so if they go on a walk, like before lunch or after lunch they can just keep doing it when they're back home, like I will do (Participant 25)
Social health	Feelings of connectedness with	I feel much better because, I'm with a lot of friends, and they're communicating just fine and having fun. Just forgetting everything about the stresses (Participant 39)

|	
others that promote well-being	I love it to go over on top of the water and things are well, I was really nervous. I have life jacket, I have my team around me and it just feels really nice, it is my first time, you feel fantastic, really wonderful. (Participant 40)

Discussion

This study was an investigation to explore how the OAE component of MST4Life™ promoted experiences of personal growth and the potential for longer-term changes. Participants' narratives depicted a story through which development in the five Cs emanated from feeling socially competent, most typically reflected in experiences of giving and receiving social support. Importantly, participants were provided opportunities to develop social competence through team-based activities and challenging experiences embedded in a needs-supportive environment, serving to support participants' psychological well-being and balanced development across the five Cs. Balanced development of the five Cs suggested adaptive developmental regulations were fostered during the OAE course, a process facilitated by participants having developed psychosocial skills in Phase 1 of MST4Life™ and embracing an environment far removed from their everyday lives with a sense of optimism. Evidence of longer-term benefits was promoted by participants' journeys of personal growth and their interactions with the outdoors environment. Participants' experiences reflected improved emotional, social, and physical well-being, feelings of resilience, and intrinsically driven intentions for positive change beyond the course. A theory-informed conceptual model of the data is provided in Figure 5.2.

Figure 5.2.

RDST-Informed Model of How the OAE Component Promoted Indicators of Personal Growth and the Potential for Long-Term Change

Adaptive developmental regulations

Ecological assets

Removal from everyday lives
Team-building activities
Challenging
Needs supportive climate

When we are challenged and supported, we grow

A sense of escapism and peacefulness in being far removed from everyday lives

Strengths of participants

Skills developed in Phase 1 of MST4Life™
Optimism

Indicators of personal growth

Five Cs

Social Competence

Confidence Connection Caring Character

Social competence – the fertile soil for versatile growth in the five Cs

Indicators for potential of long-term change

Health

Personal, social and physical well-being, and feelings of resilience

Contribution

Changes in attitudes and intentions

Changes in attitudes and intentions – the potential for sustained change

It's more than just climbing a mountain – fostering positive mental health in the outdoors

238

A unique ecological asset that helped participants to experience personal growth during the OAE course was a needs-supportive climate; namely, supporting participants' feelings of relatedness was a central theme in positive experiences. Previous research corroborates this finding, highlighting how fostering a sense of belonging in socially disadvantaged young people was associated with enjoyment and personal growth during an OAE-based programme (Bowers et al., 2019). However, building a sense of belonging can be difficult in shorter courses (e.g., five days) and in groups unfamiliar with the outdoors (Bowers et al., 2019). The present study provides a novel, theory-informed solution to this issue, indicating a needs-supportive atmosphere (informed by SDT) that can foster positive adult-youth and peer-peer relationships during a four-day course. By integrating principles of SDT into an RDST-informed model, the current study demonstrates the compatibility of these theories to inform contextual conditions and motivational climates that promote positive outcomes during OAE courses (Sibthorp, 2007; Sproule et al., 2013).

Findings from this study suggest a needs-supportive climate can support the psychological well-being and development of young people unfamiliar with the outdoors setting and experiencing a range of complex support needs. Aligning developmental and motivational theories should be an important consideration in making outdoor courses more accessible for marginalised young people (Browne et al., 2019; Warren et al., 2014). Practitioners implementing OAE courses for young people with complex support needs should consider how participants' basic psychological needs are supported to maximise potential short- and long-term benefits. However, the present study can only postulate a potential long-term change, and additional research is required to critique this recommendation. More broadly, the novel concept of incorporating a needs-supportive climate (i.e., psychologically-informed) in experiential learning settings (i.e., OAE) warrants further research (MacKenzie et al., 2014).

As proposed by RDST, adaptive developmental regulations were also fostered through the participants' strengths. First, embracing new experiences and challenges with a sense of optimism reflected how participants approached the OAE course with a growth mindset (O'Brien & Lomas, 2017). A growth mindset typically reflects a perception that challenges are opportunities to learn (Elliot & Dweck, 1998) and has been associated with feelings of resilience and self-efficacy in an outdoor personal development programme – outcomes reflected in the present study (O'Brien & Lomas, 2017). Optimism and resilience in young people experiencing homelessness have been correlated with life satisfaction (Rew, 2018); however, without intervention, this population often have negative outlooks on their futures (Kidd, 2007). Through Phase 1 of MST4Life™, participants started to embrace a growth mindset in preparation for the OAE course, exemplified in more positive self-perceptions, adaptive coping strategies, and intrinsically driven motivations (Cooley et al., 2019; Parry et al., 2021; Quinton, 2021). The present study highlights the mutual benefits between appropriate psychological preparation *before* the OAE component and challenges presented *during* it, leading to personal growth and indicators of longer-term change. This insight offers a theoretically-informed and systematic approach to creating adaptive developmental regulations that support diverse groups of young people to experience OAE courses as a catalyst for addressing health issues (Harper et al., 2019). Further research examining the process of developing a growth mindset and preparing young people with the psychosocial skills to tackle challenges in a range of domains can yield unique insights into how OAE approaches can address issues of social exclusion (O'Brien & Lomas, 2017).

Mutually beneficial relations were also evident between participants having a sense of optimism and the OAE course being far removed from their everyday lives. In their home lives, young people experiencing homelessness can feel the burden of their circumstances through socially stigmatising perceptions (Farrugia, 2010; Watson & Cuervo, 2017), often

240

exacerbated by financial difficulties and social exclusion (Prince's Trust, 2010). When understood through the lens of RDST, perceived social judgement and low socioeconomic status are barriers to adaptive developmental opportunities (Lerner & Overton, 2008). The atypical environment of OAE courses provides a unique opportunity for young people to experience respite from regular stressors and embrace personal development opportunities (Coates & McKenzie-Mohr, 2010). In the short term, findings indicate that the OAE component of MST4Life™ provided powerful and meaningful experiences that nurtured personal growth, with potential for long-term benefits, as predicted by an RDST-informed model of PYD (Lerner, 2011). More broadly, the notion of removing young people from stressful environments and into a physical and psychological space that can nurture personal growth could be a powerful strategy for services supporting youth with experiences of trauma or complex support needs.

A conceptual model of RDST-informed PYD also aided the interpretation of personal growth by applying the five Cs model (Lerner et al., 2005). The most influential construct appeared to be social competence, reflected by participants' capacities to give and receive social support effectively. Young people experiencing homelessness often have developmental and psychosocial skill deficits, resulting in difficulties forming healthy relationships (Falci et al., 2011; Rokach, 2005). Studies into youth homelessness recognise the importance of young people's social well-being; however, the role of social competence has not been studied (for a review see, Morton et al., 2020). In a study of at-risk adolescents, participants with high levels of social competence were likely to experience educational success and reduced delinquency in early adulthood (Stepp et al., 2011). This would suggest improving social competence could act as a protective factor against prevalent support needs in young people experiencing homelessness, including social exclusion and mental health issues (Homeless Link, 2018). Moreover, given the effectiveness of SDT-informed housing

services to promote quality of life and perceptions of social support (Krabbenborg et al., 2017), social competence may enhance young people's capacities to engage with psychologically informed services (Cumming et al., 2017). The youth homelessness sector would benefit from PYD and OAE programs due to their propensity to foster social competence, enhancing young people's capacity for positive engagement with services and opportunities to experience personal growth.

In the current study, experiencing personal growth appeared to prepare young people to continue a positive developmental trajectory beyond the OAE component, reflected through changes in intrinsically driven intentions to make positive lifestyle changes (D'Amato & Kransy, 2011). While it cannot be said with certainty if this trajectory led to longer-term improved health outcomes, participants' narrative that suggested more positive self-perceptions, socio-emotional well-being and feelings of resilience have been linked with positive mental health in outdoor programs for young people (Bowen & Neil, 2016; Mygind et al., 2019). Additionally, the five Cs model helps elucidate the behavioural and psychosocial mechanisms associated with improved mental health outcomes for young people taking part in outdoor-based interventions (Lubans et al., 2016). Although the five Cs have been positively correlated with health outcomes in previous research (Holsen et al., 2016), evidence in older, socially disadvantaged young people is sparse and even more limited in outdoor-based programmes (evidenced in findings from Chapter 3). Outdoor-based programs present a viable solution to addressing health inequalities; however, additional mixed methods and follow-up measurements of health outcomes are required.

Practical Implications and Future Directions

It is important to acknowledge that this evaluation only captures the second part of a two-part programme. Findings suggest the positive outcomes experienced by participants are

driven by their prior engagement in Phase 1 – this is an intentional approach of the intervention (i.e., the programme is designed to nurture skill transfer and development between the two phases). To further our understanding of the influence of Phase 1 on participants' experiences and development during the OAE component, rigorous study designs, such as matched pairs designs or randomised control trials, would provide valuable insights. Moreover lead-in programmes that promote psychological skills and coping mechanisms (like Phase 1 in MST4Life™) could help prepare young people to engage in other outdoor-based interventions, like counselling and wilderness therapy (Cooley et al., 2020; Harper et al., 2019). Practitioners and researchers working with young people experiencing complex support needs should include mental health interventions and measures to investigate the extent to which outdoors-based interventions can be a viable strategy to addressing health inequalities (Harper et al., 2019).

There are some practical barriers that practitioners should consider when working in outdoors with young people experiencing complex support needs. For example, there were cases where participants struggled to adapt to the new setting, the residential element of the trip, and the intensity of being physically active for large parts of the day. To help manage these issues, practitioners should consider being well staffed for outdoors residentials to ensure their courses can be flexible to meet the needs of participants and adopt a challenge-by-choice philosophy (Russell and Bisson 2003). Moreover, practitioners should acknowledge the importance of having staff that are (1) familiar with participants (i.e., housing staff) and (2) have an understanding of PIE practices. Familiar staff helped participants feel supported in the new surroundings and when experiencing low moods. Further, having a broader staff team (including OAE instructors) who were PIE-informed helped create a psychologically safe space during the residential. Notably, the PIE approach during the OAE component was grounded in community-based participatory research

243

(CBRP) principles (see Cumming et al., 2021). Therefore, applied health research should consider adopting CBPR principles to mobilise the community's strengths when supporting young people with complex needs to engage with new settings and adopt new health-based behaviours (Carter et al., 2019).

Finally, there is a need for future research to further explore the possible long-term outcomes of experiences in the outdoors for young people experiencing complex support needs. While the present study elucidates some potential mechanisms for sustained change, existing follow-up evidence is sparse (Bowen & Neil, 2016). Research that provides positive follow-up changes for participants in rigorous study designs (e.g., randomised control trials) can underscore the change in policy and practice to best support young people experiencing complex support needs, such as those experiencing homelessness. Indeed, a recent cost-effectiveness analysis of MST4Life™ suggests that programmes with an OAE component can lead to economic and societal benefits (Jabbour & Siu, 2019).

Strengths and Limitations

During the five-year data collection period, changes were made to the OAE component; most notably, it was extended from three to four days. In keeping with the community-based participatory research (CBPR) approach of the MST4Life™ project, the course was extended based on findings from research action cycles and stakeholder consultations (Cumming et al., 2021). Reassuringly, recent fidelity research of the programme suggests strong adherence to delivery guidelines across different cohorts of the programme (Tidmarsh et al., 2021). Moreover, similar themes being evident in data from cohorts who participated in the three-day and four-day courses suggests the length of the OAE component did not appear to have a major influence on participants' experiences.

244

Conducting an in-depth analysis of the OAE component provided novel evidence of how the course contributes to the societal and economic benefits of the MST4Life™ programme. For instance, a recent cost-benefit analysis suggested that MST4Life™ can reduce the number of young people who are not in education, employment or training by 30 percentage points compared to psychologically informed case management support alone (Jabbour & Siu, 2019). Along with additional evaluations of the programme (Cooley et al., 2019; Quinton et al., 2021; Parry et al., 2021), the current study makes a compelling case for the OAE component of MST4Life™ having an influential role in supporting participants to make longer-term changes through improvements in health outcomes and changes in intentions and attitudes. Commissioners should consider the potential longer-term cost benefits of funding outdoor-based youth development programs when working with young people experiencing homelessness and other groups with complex support needs. With that being said, additional research providing follow-up measures of social inclusion and health status is required to strengthen the case for OAE courses being a cost-effective approach to tackling social and health inequalities.

Finally, questions used during data collection were not informed by the five Cs model. Instead, questions were guided by the Kirkpatrick model of evaluation (i.e., reaction, learning, behaviour and results; Kirkpatrick, 1994). The Kirkpatrick framework was applied in each iteration of data collection across the five-year period, underpinning a consistent and rigorous evaluation protocol. The five Cs model was used in the present study to guide data interpretation and development of a theory-informed conceptual model, serving to enrich data descriptions and transferability of findings (Tracy, 2010). As the five Cs model did not inform data collection, the extent to which findings from the present study can offer insight into the model's applicability in older, socially disadvantaged young people is limited.

Another limitation of the questions used for data collection is the potential for biased response through the use of positively phrased questions (see Appendix M). The questions posed to participants were strengths-based and solution-focused, in line with the overarching philosophy of the programme. Moreover, the diary room was not only seen as a tool for data collection but also an opportunity for reflection, in line with an experiential learning approach to the outdoors component (Kolb, 1984). Therefore, the diary room was, to an extent, part of the intervention and questions reflected the underpinning strengths-based approach. The answers gleaned from the diary room still offer detailed insights into participants' experiences and development. Further, for a group that does not typically engage with data collection methods, the diary room was an effective, flexible method that facilitated participant-centred engagement. Nonetheless, it is possible the questions asked positively skewed the findings, and the results should be interpreted with caution.

Conclusion

Findings presented in this study support the efficacy of the MST4Life™'s OAE component to consistently create adaptive developmental regulations to foster improvements in personal growth and longer-term benefits in a diverse sample of participants. A core feature of adaptive developmental regulations during the OAE component was a needs-supportive climate, which enabled young people to feel competent and autonomous in challenges and build positive relationships with adults and peers. Applying RDST and SDT, the current study offers a novel, theory-informed solution to fostering a sense of belonging amongst participants taking part in short OAE courses (i.e., four days) and a psychologically-informed approach to improving the accessibility of outdoor programmes for marginalised young people (Browne et al., 2019).

Additionally, findings highlighted how preparing participants with psychosocial skills and qualities in a preceding psychoeducational programme enabled them to experience

personal growth in an environment far removed from their everyday lives and in a range of different challenges. Personal growth was underpinned by social competence, exemplified in participants' capacities to apply social skills and awareness in team-based activities, leadership roles, and relationships with peers and staff. Given how social competence played a central role in participants' narratives of growth, well-being, and changes in intention and attitudes, the present study strongly recommends that future research explores this construct further. For example, investigating the extent to which interventions that promote social competence address issues associated with childhood trauma, such as difficulties forming relationships, lower levels of social-emotional well-being, and mental health disparities (Hambrick et al., 2019).

Chapter 6: General discussion

The present thesis had five core aims to be achieved through three empirical studies, and these were to:

a) Review the existing literature regarding the effectiveness of physical activity-based positive youth development (PYD) programmes to improve health inequalities in socially disadvantaged young people;

b) Provide a theoretically informed evaluation of MST4Life™ to understand the extent to which the programme can promote positive outcomes and address health inequalities in young people experiencing homelessness;

c) Investigate the processes and mechanisms that underpin outcomes observed in MST4Life™ to improve understanding of how young people experience the programme, as well as identify core components of the programme that are central to its success or failure;

d) Conduct an in-depth exploration of young people's experiences during the outdoor adventure education (OAE) component of MST4Life™ to understand its role in young people's development, health, and well-being; and

e) Provide meaningful insights into the MST4Life™ programme that can support its sustainability in the community and inform practitioners working with young people within the homeless sector.

These aims were met through a systematic review, a realist-informed evaluation of the MST4Life™ programme, and a qualitative investigation of the OAE component. Findings from each of the three studies are summarised below (summary of results) with evidence of how the thesis aims were addressed. The remainder of this chapter will discuss the

implications of findings, a critical appraisal of the strengths and limitations of this body of work, recommendations for future research, and, finally, the thesis conclusion.

Summary of Results

Systematic Review (Chapter 2)

The present thesis set out to understand how MST4Life™ could improve health, well-being, and developmental outcomes in young people experiencing homelessness. More specifically, research in the present thesis was designed to explore MST4Life™ through the lens of PYD and examine the influence of the OAE component. Given how the present thesis was providing novel evaluations of MST4Life™, there was a need to further explore research pertaining to programmes of a similar nature (i.e., physical activity-based PYD programmes); this was achieved through a systematic approach to searching the literature. By specifically targeting quantitative evidence in the systematic review, the study provided additional depth and breadth of literature covered when understanding MST4Life™ in light of similar programmes. For example, previous reviews of physical activity-based PYD programmes acknowledged a predominance of qualitative research in the field (e.g., Hermens et al., 2017; Holt et al., 2017; Jones et al., 2016; Whitley et al., 2018). Therefore, to appropriately contextualise the present thesis in light of the existing literature, there was a need to also understand what could be learned from quantitative evidence.

The narrative synthesis conducted in the systematic review highlighted how outcomes reported in evaluations capture developmentally-informed health outcomes (informed by the biopsychosocial model of health). A trend across findings indicated that skills and competencies in targeted programmes can underpin positive psychosocial health behaviours. The heterogeneous nature of programme designs and evaluation protocols made it difficult to ascertain the influence of different physical activity settings. The main gaps identified by the

review that this thesis contributed to were (a) few studies exploring the effects of outdoor-based programmes, (b) a dearth of studies including older adolescents and emerging adults, and (c) no existing research including young people experiencing homelessness. These gaps in the literature were corroborated in qualitative reviews (Hermens et al., 2017; Whitley et al., 2018). Therefore, it could be concluded that an investigation of the MST4Life™ programme would contribute unique insights into the applicability of physical activity-based PYD programmes to some of the most socially disadvantaged young people in western society.

Although the review investigated quantitative studies, qualitative research was considered an appropriate methodology for studying the MST4Life™ programme for two important reasons. First, findings from a needs analysis with stakeholders from St Basils suggested qualitative data collection methods were seen as more engaging than quantitative methods and helped overcome learning difficulty barriers presented when completing questionnaires (Cumming et al., 2014). A participant-informed approach to data collection aligned with the CBPR principles of the broader MST4Life™ project (Cumming et al., 2021; Quinton et al., 2021). Further, in line with the transformative paradigm, the present thesis endeavoured to make collaborative decisions when working with participants (Mertens, 2007). Second, existing evaluations of MST4Life™ were predominantly quantitative in nature (e.g., Cooley et al., 2019; Quinton et al., 2021). Using qualitative methods to evaluate MST4Life™ meant the present thesis was able to capture unique insights grounded in the experiences of key stakeholders, including those overlooked in previous empirical evaluations (outdoor instructors and St Basils staff).

To ensure the qualitative studies were informed by existing literature and made novel contributions to the field, a thorough search of qualitative and mixed methods reviews and empirical studies was conducted when preparing this thesis and throughout completion (e.g., the detailed overview provided in Chapter 1 and relevant chapters for MST4Life™ studies).

The qualitative evidence-base similarly highlighted limited research evaluating the effect of outdoor-based PYD programmes for older young people (e.g., 16-24 years), and, specifically, young people experiencing homelessness (Harper et al., 2019; Hermens et al., 2017; Merton et al., 2020; Mercier et al., 2019; Mygind et al., 2019; Spruit et al., 2016; Super et al., 2018; Tillmann et al., 2018).

Qualitative Realist-Informed Evaluation of MST4Life™ (Chapter 4)

The aim of Chapter 4 was to provide a community-based and data-driven evaluation of how and why MST4Life™ was perceived to work. In doing so, the study set out to collect data from two cycles of delivery using principles informed by realist evaluation research (Pawson & Tilley, 2004). Qualitative data were collected from participants of the programme, St Basils staff, and OAE instructors. By adopting a realist evaluation framework when thematically analysing the data, findings from the study elucidated context, mechanism and outcomes singularly and collectively (i.e., context-mechanism-outcomes chains, referred to as CMO configurations). Moreover, the concept of ripple effects was applied (Jagosh et al., 2015) to interpret how outcomes from temporal CMO configurations throughout the programme influenced participants' engagement and development (see Figure 4.2, p. 155), for a conceptual model from this study). Findings from the study can be summarised in the four context-mechanism-outcome (CMO) configurations,

1. **CMO configuration 1:** MST4Life™'s psychoeducational programme cultivates a psychologically informed atmosphere (C1) through the environment of the facilitators' housing service and delivery style. As a result, participants feel their basic psychological needs are met (M1), helping to foster personal and social well-being (O1).

2. **CMO configuration 2:** Experiential learning opportunities (C2) are perceived as enjoyable and challenging. Subsequently, motivations for engaging with the programme are more intrinsically driven (M2). The persistence and commitment that transpire support the development of psychosocial skills (O2).

3. **CMO configuration 3:** The OAE component of MST4Life™ (C3) presents two key contextual variables: (a) away from participants' everyday norms; and (b) a range of physical and psychosocial challenges. These variables provide opportunities for participants to intentionally self-regulate (M3) and, in doing so, build psychosocial competence (O3).

4. **CMO configuration 4:** Participants returning to a housing organisation (post-OAE) that offers opportunities for further development (C4) are likely to experience positive behavioural changes (M4) and be better prepared for independent living (O4).

Additionally, three examples of ripple effects were identified during the MST4Life™ programme. First, as participants experienced well-being benefits during the psychoeducational programme (Phase 1), they became more intrinsically motivated to sustain their engagement. Towards the end of Phase 1, the developmental skills established through experiential learning activities supported participants to intentionally self-regulate during the programme's OAE component (Phase 2). Finally, from the perception of St Basils staff, the psychosocial competencies participants developed during Phase 2 are transferred back to their home lives and are applied to promote positive behavioural changes (e.g., positive engagement with services).

Chapter 4 provided valuable contributions to the broader MST4Life™ project by highlighting context and mechanism components thought to be linked with positive engagement and development that had not previously been examined. More broadly, some

applied implications from this study include (1) the importance of cultivating a psychologically-informed atmosphere (e.g., PIE and needs-supportive climate) in strengths-based programmes with young people experiencing complex support needs, (2) the benefits of focusing on participants' well-being in the early stages of programmes to promote intrinsically driven motivations for engagement, (3) the use of experiential learning activities to promote sustained engagement and development psychosocial skills, and (4) the benefits of outdoor experiences to promote skills transfer and development.

The generalisability of findings from realist evaluative research should be interpreted with caution. While on the one hand, the realist philosophy suggests that mechanisms are "not unique to a particular setting… the same or similar mechanisms are present and explain causal links in different situations" (Punton et al., 2016, p. 2). On the other, a key tenet of realist evaluation research is to understand the specific dynamics of programmes in particular communities or groups of people (i.e., what works for whom and under what conditions; Pawson & Tilley, 2004). When evaluating complex interventions, Westhorp (2012), proposed that CMO configurations offer a degree of transferability; yet, the extent to which CMO configurations can provide causative explanations in other settings is dependent on contextual similarity and consistency in programme delivery. In sum, the CMO configurations provided in this study can serve as testable hypotheses to explore the implementation of MST4Life™ in new settings and with new populations. Beyond MST4Life™, findings from this study can offer some causative explanations underpinned by data and theory, but the implications suggested warrant further study (e.g., to understand the unique nuances of different communities).

With regards to the present thesis, this study also underscored how the OAE component of MST4Life™ played an important role in facilitating the transfer and development of psychosocial skills and promoting longer-term benefits such as improved

behavioural outcomes and supporting participants to live independently. As a result, the findings provided additional justification for an in-depth investigation of the OAE component to understand how MST4Life™ utilises outdoor activities to improve health, well-being and developmental outcomes.

A Qualitative Investigation of the OAE Component of MST4Life™ (Chapter 5)

Chapter 5 was an in-depth investigation of how participants responded to the OAE component of the MST4Life™ programme delivered between 2014 and 2018. More specifically, the aim of this chapter was to explore participants' narratives to understand how, if at all, the OAE component fostered personal growth and the potential for longer-term change. Findings from the study were data-driven, with themes being formed inductively. Data-driven themes were then considered in light of a relational developmental systems theory (RDST) model of PYD. The RDST model of PYD provided three overarching themes, (1) adaptive developmental regulations (i.e., mutually beneficial relations between young people and their environment); (2) indicators of personal growth (i.e., five Cs of PYD); and (3) The potential for long-term change (Lerner at al., 2011). Interpretation of participants' data suggested there were important physical and social components of the OAE setting that set the foundations for experiencing personal growth. For example, there was evidence to suggest mutually beneficial relations occurred between a needs-supportive climate and participants feeling supported when embracing new challenges. Moreover, how participants responded to challenges (i.e., willingness to take on challenge, and support their peers through challenges) was positively influenced by the psychological skills and qualities developed in Phase 1. This finding supported evidence presented in Chapter 4 that suggested Phase 1 provides essential resources to psychosocially prepare participants to experience personal growth during the OAE component.

Indicators of personal growth were informed by the five Cs model (caring, competence, confidence, connection, character). Interpretation of the data suggested participants who exhibited social competence (i.e., adaptive application of social skills to function in social situations effectively) were likely to experience balanced development of the other Cs and promote the development of their peers. This process was captured in examples of participants offering and receiving social support in team-based activities, thriving in leadership opportunities, and peer interaction in unstructured social situations. Development of the five Cs was one pathway to potentially promoting indicators of longer-term changes, reflected through feelings of psychological, social, and physical well-being, feelings of resilience, and changes in intentions and attitudes. Other changes in indicators of longer-term changes were linked to being promoted in the natural surroundings of the outdoors setting, exemplified in participants feeling a sense of calm and escapism in being far removed from their everyday lives.

One of the strongest indicators for longer-term change was participants' expressing intrinsically driven intentions to make positive changes away from the OAE setting; for example, having experienced the health benefits of engaging in physical activity, participants spoke of wanting to be more physically active in their everyday lives. The intrinsically driven nature of participants' motivation for change would suggest the potential for intentions to lead to behavioural change after the OAE component (Ryan & Deci, 2000); while this hypothesis is informed by theory and extant research on the role of motivational processes in physical activity behaviour (for a review, see Teixeira et al., 2012), without follow-up data from participants, it cannot be claimed with certainty that intentions led to actual behavioural change. It is recommended that future evaluations of MST4Life™ include measures of intrinsic motivation and physical activity, including a follow-up time point, to ascertain the extent to which the programme leads to increased uptake and maintenance of physical

255

activity for participants and whether increased intrinsic motivation is the mechanism by which this change occurs.

Overall, the findings from the three empirical studies have informed a conceptual model of how the MST4Life™ programme is implemented and experienced by participants (Figure 6.1). This model is informed by evidence provided in the present thesis and findings from other empirical and internal reports of MST4Life™ (e.g., Cooley et al., 2015a; Cooley et al., 2019; Quinton et al., 2021). Moreover, outcomes included in this model are informed by the MST4Life™ logic model (Cumming et al., 2021a) and have not been evidenced in the present thesis (for the MST4Life™ logic model, see Appendix F). In the following section, the broader implications of the findings from the present thesis are discussed. It should be noted that given the nature of the study designs employed when evaluating the MST4Life™ programme (i.e., realist evaluation-informed, case study) may limit generalisability to other settings. Therefore, implications for other settings should be interpreted with caution.

Figure 6.1.

Proposed Conceptual Model of the MST4Life™ Programme Based on Findings Presented in This Thesis and Findings from Other Evaluations

Input	Process	Outcomes

Strengths of young people

Existing skills and qualities

Experts through experience

Initially promoting well-being

Participants feel their basic psychological needs are supported in sessions.

Experiential learning and transfer

Experiential activities facilitate enjoyment, engagement, and transfer of skills to new settings

Indicators of longer-term change

Feelings of well-being, resilience, and intrinsically-driven motivations for behavioural change

From present thesis

Personal and social well-being; Psychosocial skills and social competence; Positive engagement with St Basils and external services; Being more prepared for independent living; Changes in attitudes and intentions for healthier lifestyle.

Engagement in MST4Life™

Environment

Needs supportive atmosphere

Psychologically informed environments

Intrinsic motivation and psychosocial skills

Intrinsically driven motivation promotes sustained and active engagement, increasing likelihood of skill development

Personal growth in the outdoors

Leadership opportunities and team-based activities give participants an opportunity to demonstrate and continue to develop social competence

From other evaluations

NEET → EET (Jabbour & Siu, 2019);

Improved, awareness of strengths, resilience and well-being (Cooley et al., 2019; Quinton et al., 2021).

Theoretical assumptions

Supporting basic psychological needs foster intrinsic motivation and well-being (SDT)
Creating mutually beneficial relations between young people and their environment (RDST)
Learning through concrete experiences and structured reflection (experiential learning theory)

Conceptual perspectives

Every young person has the capacity to thrive (PYD)
Young people are key stakeholders and should have an active voice in the research (CBPR)
The development of psychological qualities is a systematic and intentional process (MST)

Applied practice

Participant-centred workshops, in- and out-of-house (e.g., PYD, MST)
Use of physical activity to promote transfer of skills and well-being (e.g., OAE course)
Facilitators' behaviours shape the motivational climate (SDT)

Implications

The multi-theory approach taken to evaluating MST4Life™ in the present thesis included four main theories, PYD (Lerner et al., 2005), SDT (Ryan & Deci, 2000), RDST (Overton, 2008), and experiential learning theory (Kolb, 1984). The theory-informed findings from this thesis elucidate motivational, developmental and pedagogical insights that can inform evaluations of MST4Life™ and guidelines for applied practice. More broadly, implications drawn from the present thesis can contribute to theoretical advancements and conceptual perspectives of strengths-based approaches when working with socially disadvantaged young people.

Drawing from findings underpinned by SDT, the present thesis highlights the importance of creating a programme atmosphere that is supportive of young people's basic psychological needs (Krabbenborg et al., 2017b; Pierce et al., 2017). For example, in Phase 1 of the programme, a needs-supportive climate contributed to feelings of personal and social well-being. Similar benefits were evidenced in two studies included in the systematic review targeting young people with experiences of trauma (D'Andrea et al., 2013; McMahon & Hanrahan, 2020). Findings from these studies indicated reductions in mental health disparities, including social anxiety (McMahon & Hanrahan et al., 2020) and internalising and externalising behaviours (D'Andrea et al., 2013). The findings presented by McMahon & Hanrahan (2020) were grounded in SDT, suggesting feelings of relatedness were positively correlated with reductions in social anxiety.

Although specific measures of mental health were not included in the present thesis, findings from a quantitative study of the programme suggested positive links between mental skill development and pre- to post-test[25] changes in resilience and well-being (Quinton et al.,

---

[25] Pre- to post-test in this study was from first and last sessions included in Phase 1 (Quinton et al., 2021).

2021). Qualitative data collected from participants in this thesis corroborated the findings presented by Quinton et al. 2021, suggesting participants' experiences reflected improvements in personal and social well-being in Phases 1 and 2 and feelings of resilience during Phase 2. Well-being and resilience are indicators of positive mental health in the dual model of mental health and illness (Greenspoon & Saklofske, 2001). Findings from the present thesis and the work by Quinton et al. (2021) and McMahon and Hanrahan (2020) provide complementary evidence to suggest psychoeducational programmes that promote basic psychological needs can enhance indicators of positive mental health and reduce indicators of mental ill-health in young people with experiences of trauma. Additionally, findings from an evaluation of a psychoeducational programme for young women experiencing homelessness and gender-based victimisation indicated the programme's effectiveness in improving life satisfaction and resilience scores and reducing substance abuse, symptoms of trauma, and psychological distress at six-month and 12-month measures (Bani-Fatemi et al., 2020). Collectively, the evidence outlined above makes a strong case for the implementation of psychoeducational programmes to support young people with experiences of trauma. Future studies that continue to implement randomised control study designs (e.g., McMahon & Hanrahan, 2020), recruit large sample sizes (e.g., Quinton et al., 2021), and collect follow-up measures (e.g., Bani-Fatemi et al., 2020), will provide the required evidence for practitioners and policymakers to utilise psychoeducational programmes when working with vulnerable young people.

Considered more specifically in the field of youth homelessness, findings from this thesis go some way to support the application of a needs-supportive approach in youth housing services. A quantitative evaluation of SDT-informed practice in youth housing services (the Houvest project) suggested that a minimum of three months of care was linked to higher levels of needs satisfaction, which was subsequently positively correlated with

perceptions of quality of life in young adults (M age = 20.7 years; Krabbenborg et al.,
2017b). The present thesis qualitatively demonstrates how similar benefits can be achieved
over a relatively short intervention in the same demographic (10-week psychoeducational
programme and three-four-day OAE component). Combined, findings from the present thesis
and the Houvest project (Krabbenborg et al., 2017a; 2017b) suggest SDT is an appropriate
theoretical framework for implementing strengths-based approaches in youth housing
services. Practitioners seeking to implement effective interventions should consider how their
initiatives adopt core principles of SDT (e.g., a needs-supportive climate) to promote
intrinsically driven motivations for engagement and nurture health and well-being benefits
(Quinton et al., 2021). Additionally, an autonomy-supportive approach in MST4Life™ has
been linked to strength-identification (i.e., mental skills and strengths) and self-awareness
(Cooley et al., 2019). Given the complex and heterogeneous nature of support needs and
strengths reflected in the youth homeless population (Cooley et al., 2019; Heinze, 2013;
Quinton et al., 2021) and the underlying framework of mental skills training in MST4Life™
(including those used to inform similar programmes, such as LifeMatters; McMahon &
Hanrahan, 2020), conceptual links can be made to SDT-informed practices when working
with other vulnerable groups in and away from sport settings.

From a sport psychology perspective, practitioners working with young people who
have experienced or are still experiencing trauma could benefit from PIE or trauma-informed
training (D'Andrea et al., 2013; McMahon & Hanrahan, 2020). Recent research has
elucidated links between mental health risk and competitive involvement in sports in older
adolescents and emerging adults (Swann et al., 2015). Furthermore, socially disadvantaged
student-athletes are at risk of poor mental health due to issues around support seeking and
effective support networks (Wilkerson et al., 2020). In responding to these issues, coaches
and sport psychologists could benefit from incorporating trauma-informed practices to create

260

sporting cultures that promote mental well-being (for staff and players) and appropriately

support those at risk of mental ill-health (Bissett et al., 2020). From an applied perspective,

this could include incorporating PIE into mental health literacy training for coaches and

athletes (Liddle et al., 2021; Gorczynski et al., 2020). Alternatively, aligning PIE with mental

skills training (MST) or life skills programmes to enhance perceptions of emotional support

and promote mental health and performance outcomes (D'Adnrea et al., 2013; Gross et al.,

2018).

In youth services, PIE frameworks could benefit from incorporating SDT as a core

theory to inform the delivery of self-development initiatives for young people experiencing

complex support needs. Insights from MST4Life™ indicate a needs-supportive climate can

be created through a combination of programme facilitators adopting SDT-informed delivery

behaviours and implementing PIE guidelines, exemplified in programmes delivery guidelines

(see Appendix A; Cumming et al., 2017; Cooley et al., 2019; Tidmarsh et al., 2021). Despite

some similarities with the Houvest intervention implemented in youth housing services in the

Netherlands (Krabbernborg et al., 2015), SDT and PIE's combined application in

MST4Life™ appears to be a unique approach in the UK. However, findings from the present

thesis corroborate insights from recent research from Canada that suggests trauma-informed,

psychoeducational programmes can provide health and well-being benefits to young people

experiencing homelessness (Bani-Fatemi et al., 2020). Through a trauma-informed and

motivational lens, the MST4Life™ delivery model is an example of behavioural guidelines

that are sensitive to complex support needs and promote intrinsic motivation (i.e., needs-

supportive vs needs thwarting behaviours; see Appendix A). Findings from the present thesis

affirm the need and relevance for needs-supportive behaviours when delivering MST4Life™

to promote healthy developmental growth. Insights from this thesis have provided additional

evidence for staff training resources and training toolkits for the sector (sprintproject.org/toolkits).

However, conclusions based on MST4Life™'s approach of integrating PIE and SDT should be considered in light of specific unique community assets that underpinned the research project. For example, MST4Life™ was informed by St Basils bespoke PIE framework through a CBPR approach (Cumming et al., 2021). From an ecological systems approach, MST4Life™ can be seen as a microclimate embedded within the broader ecology of St Basils. That is, while MST4Life™ provides evidence-based and theory-informed resources for personal development, St Basils, a PIE organisation, provides a physically and psychologically safe space. MST4Life™ and St Basils also offer young people opportunities to contribute to their environments, exemplified by inviting their input in stakeholder consultations or peer mentoring available through MST4Life™ and involvement in staff recruitment and in-house leadership roles, partnerships with employers, and national youth advocacy groups via St Basils. Opportunities for continued development provided by St Basils and MST4Life™ supported young people to apply their skills in new areas and continue to experience adaptive developmental environments beyond the programme (Lerner & Overton, 2008). St Basils' have been recognised as a leading organisation for its systems approach to helping young people transition out of homelessness, reflected in their PIE approach and collaboration with the research team from the University of Birmingham (Homeless Link, 2018). Other housing organisations may not have the resources or capacity to offer young people PIE-informed pathways and opportunities (i.e., established partnerships with big employers or youth advocacy groups) to facilitate continued self-development after short-term programmes (like MST4Life™). To help housing services to implement similar service delivery as St Basils, free toolkits have been developed based on the findings from MST4Life™ and stakeholder consultations with experts in the field (see

262

www.sprintproject.org/toolkit). The toolkits offer informative resources to provide guidance on how to implement components from MST4Life™'s approach to personal development, psychologically informed delivery, and programme evaluation.

Figure 6.2 depicts a developmental systems framework for promoting a needs-supportive environment and healthy development growth based on evidence from MST4Life™ evaluations and hypothesised links. While this figure is specific to MST4Life™, it can provide theory-informed guidance to practitioners and commissioners when designing programmes with young people experiencing complex support needs and explicitly when promoting health outcomes – an issue that could be exacerbated as services adjust their practices to respond to the impact of COVID19.

While implications drawn from the present study should be considered with caution, there may be some advantages to considering how programmes like MST4Life™ can be beneficial for young people's health and well-being in the wake of COVID19. For example, when considered through the lens of Maslow's hierarchy of needs, the environment created by St Basils and MST4Life™ can meet young people's physiological, safety, long and belonging, esteem, and self-actualisation needs (Maslow, 1943). In a study of homeless youth (15-18 years) in Ghana, Maslow's theory accurately captured participants' everyday life needs, namely those relating to access and use of informational resources that guide healthy behavioural choices (Markwei & Rasmussen, 2015). Moreover, from a systems approach, Markwei & Rasmussen (2015) identified the importance of social support networks and communities providing informational resources to support young people experiencing to meet their everyday needs. Recent research has called on the government to consider Maslow's hierarchy of needs when understanding the consequential effects of COVID19 lockdown restrictions on the health status of vulnerable populations (Ryan et al., 2020). In evidencing how MST4Life™ and St Basils support multiple needs through a theory-informed, integrated

systems approach, findings from the present thesis can inform policymakers and practitioners to find effective strategies to support vulnerable populations in the wake of COVID19 restrictions (Ryan et al., 2020). The benefits of MST4Life™ to address health and social inequalities are also demonstrated in a cost-benefit analysis report of the intervention, which suggested the chances a young person will be engaged in education, employment or training three months after participating in MST4Life™ increases by 30 percentage points (Jabbour & Siu, 2019). Moreover, follow-up data provided by staff ($n = 2$) in the present thesis provides examples of how MST4Life™ can support young people's transition into independent living and improve their engagement with external services, albeit in limited cases.

However, there are limitations to using Maslow's hierarchy of needs as the sole template for understanding the basic needs of marginalised groups of young people. For example, research indicates there are differences in how need satisfaction influences academic achievement and the number of arrests in white and black adolescent boys (Scheilden, 2020). Moreover, the model has been criticised for being based on middle-class western values (Hofstede, 1984) and predominantly masculine needs (Cullen, 1994). Cullen (1994) highlights that model reflects patriarchal biases in overlooking women's sexuality and self-esteem needs, a notion that has been recently captured when considering the self-actualisation needs of young black women who feel wrongly portrayed by the media and social perceptions of black femininity (Hyde, 2012). In light of the limitations of Maslow's hierarchy of needs, it would be advised that the model is used with caution and organisations consider a youth-led approach to understanding and responding to the needs of marginalised groups (Bulanda et al., 2014; Chou et al., 2015; Harden et al., 2015). A youth-led approach is a core component of community-based PYD programmes, such as MST4Life™. PYD frameworks and youth-led responses to needs are examples of how organisations can take a theory-informed and culturally sensitive approach to nurture development growth in response

264

to challenging societal issues, such as COVID19 (The Organisation for Economic Co-operation and Development, 2020).

Figure 6.2.

Conceptual Model of How MST4Life™ Promotes Healthy Developmental Growth and Needs Satisfaction Through an Ecological Systems

Approach

Healthy developmental growth promoted through mutually beneficial context ↔ individual relations

(a) Evidence-based resources for self-development ↔ apply skills in peer mentoring roles and stakeholder consultations.

(b) Pathways for further development ↔ apply skills strengths in organisational interview panels, and represent peers in national youth advocacy groups.

(c) Education, employment, and training (EET) opportunities, independent living ↔ apply enhance self-regulation skills to maintain EET status and sustain intendent living.

Wider Society

St Basils

MST-4Life

Young Person

b

c

a
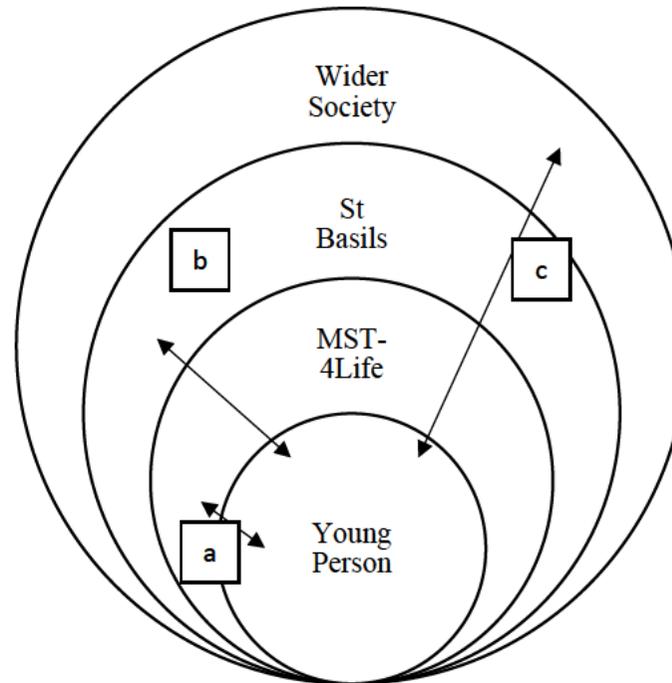
Supporting psychological and physical needs

(a) Feelings of competence, relatedness and autonomy (basic psychological needs), and belonging needs are supported through a PIE and SDT-informed approach.
Esteem needs are supported through a strengths-based approach.
Self-actualisation needs are met through experiential learning experiences and leadership opportunities.

(b) Physiological and safety needs are met through secure supported accommodation. Love and belonging and esteem needs are met though a service wide PIE approach. Self-actualisation needs are met through opportunities for continued development within the service.

(c) External services (e.g., employers) can continued to support needs through adopting strengths-based, and PIE- and SDT-informed approaches to working with young people.

PYD conceptualises healthy developmental growth as a young person demonstrating balanced growth across the five Cs (Lerner et al., 2005), that is, a balance of the five Cs increases the likelihood that adaptive developmental regulations will occur (Geldhof et al., 2019). On the other hand, 'martyring' developmental regulations can happen when a young person has heightened proficiency in socioemotional Cs (caring and character), coupled with a lack of confidence or social awareness, leading to an increased risk of being taken advantage of (Geldhof et al., 2019).

Martyring developmental regulations may be particularly pertinent in marginalised young people, owing to their increased risk of social isolation and exposure to unhealthy relationships (Rokach, 2005; Malden et al., 2019). Insights from the present thesis offer a potential solution to this issue. Findings from Chapter 5 suggested that social competence was a prevalent characteristic in participants who experienced balanced development of the five Cs. Social competence was considered the capacity to apply social skills to function in a range of social settings adaptively, oftentimes characterised through giving and receiving social support and socially aware leadership. To date, the role of social competence in promoting balanced development of the five Cs has not been explored. Although additional research is required, PYD programmes working with socially disadvantaged young people may want to focus on the development and measurement of social competence as a personal construct that can mitigate the risk of maladaptive developmental outcomes and involvement in antisocial behaviours (Stepp et al., 2011).

There is also the consideration that the application of PYD in MST4Life™ is with a population that is rarely captured in the PYD literature, both in terms of age and social status (i.e., late adolescents and emerging adults experiencing homelessness). Therefore, when thinking about the application of the five Cs model, possible implications should be considered with caution. Instead, it may be more useful to propose that the findings in this

thesis present novel insights to demonstrate how PYD can be applied to provide a theory-informed lens for healthy developmental growth in older groups. For example, positive psychology programmes have been successfully implemented with emerging adults (18-25 years) experiencing complex support needs (Walker, 2015); yet, these programmes, and more broadly interventions in youth homelessness, lack a consistent approach (Morton et al., 2020). PYD frameworks could present a viable solution by providing practitioners with guidelines to support their practice, understand developmental pathways to health and well-being, and standardised measurement tools to measure outcomes. Future research that measures the psychometric accuracy of youth-based questionnaires for older groups is needed, as well as qualitative evaluations that continue to explore how models like the five Cs can be conceptualised for different groups of young people.

It is also worth considering that the application of PYD to an older group was, in some capacity, aided by the use of a sport psychology approach in the form of mental skills training (MST). A sport psychology approach sparked young people's curiosity because it was different from typical training courses they had attended (and not always been successful in). The idea of sparking young people's curiosity is considered an important motivational process in youth development programmes, "A central question of youth development is how to get adolescents' fires lit, how to have them develop the complex of dispositions and skills needed to take charge of their lives" (Larson, 2000, p. 170). Evidence provided in the present thesis corroborates findings from wider empirical studies of MST4Life™ (Cooley et al., 2019; Quinton et al., 2021) and the LifeMatters programme (Hanrahan & Ramm, 2015; McMahon & Hanrahan, 2020), to suggest the assimilation of PYD and MST may be an effective approach to promoting developmental outcomes in later adolescence and emerging adulthood. For example, in the present thesis, findings from Chapters 4 and 5 point to the benefits of using a skill-based framework in an experiential style of learning to promote

transferable psychosocial skills, which have the potential to influence behavioural change beyond the programme. While these findings are not applied in a sports setting, there are some implications that can be discussed in light of how MST4Life™ supports older adolescents and emerging adults to find adaptive coping strategies (e.g., intra- and interpersonal problem solving) to manage challenges that also apply to sporting populations.

In older groups, such as those attending university or college, PYD-informed MST may present a viable solution to supporting young people in learning adaptive coping strategies to simultaneously manage academic and sporting commitments (Proctor & Boan-Lenzo, 2010). Identifying ways sport psychology interventions can promote adaptive coping strategies in student-athletes from low-income backgrounds can help mitigate their increased risk of mental health issues, social isolation, and higher dropout rates (Beamon, 2014; Mendoza et al., 2012; Wilkerson et al., 2020). Previous research has indicated that typical MST approaches may be less effective for improving mental health and sporting performance compared to programmes that have a greater focus on developing emotional well-being (Gross et al., 2018). MST4Life™ exemplifies how PYD can complement MST to provide additional affirmational support and more rounded mental skills development (e.g., giving and receiving social support to peers). Moreover, findings from the present thesis corroborate findings that suggest PYD and MST-informed programmes can improve indicators of mental health in groups of older, socially disadvantaged young people (Hanrahan & Ramm, 2015; McMahon & Hanrahan, 2020). Providing evidence that MST4Life™ can improve psychological development and well-being in some of the most marginalised young people in society supports the utility of PYD-informed MST for sport psychologists looking to support groups at risk of health inequalities. With that being said, links between MST4Life™ and traditional MST must be made tentatively, and additional research is required to explore the notion of PYD and MST in older age groups in sport.

While MST4Life™ was sport psychology informed, it was not sport-based; instead, the programme utilised outdoor adventure education (OAE). Findings from Chapter 5 suggest that an OAE environment provides opportunities for needs-supportive engagement and leadership, experiences of personal growth, and indicators of longer-term change (e.g., health and well-being, attitudes and intentions). Themes from the data corroborate claims that outdoor-based interventions can be perceived as a 'catalyst for change' by emerging adults with complex support needs (Harper et al., 2019). However, the OAE component of MST4Life™ differed from the therapy-based approach investigated by Harper and colleagues (2019). Instead, OAE in MST4Life™ was used to facilitate the transfer of skills and enhance young people's capacity to intentionally self-regulate (Sibthorp et al., 2015). Though this process was not grounded in therapeutic approaches, it was therapeutic in nature. For example, an experiential learning approach facilitated active reflection (akin to reflective practice in PIE; Cumming et al., 2017), staff adopted a psychologically-informed approach to working with young people, and the outdoors setting promotes emotional well-being (e.g., a sense of calm and escapism). These findings suggest the approach applied in MST4Life™ may be an effective strategy to elicit similar benefits to therapeutic interventions in the outdoors. OAE could be applied as an early preventative approach to support young people with less severe mental health issues.

If services supporting young people with complex support needs are to implement OAE courses, important considerations include (1) employing a preceding psychoeducational programme that prepares young people to thrive in the outdoors through the development of psychosocial skills (Sibthorp et al., 2011b); and, (2) application of psychological frameworks that promote personal growth (e.g., SDT; Barrable & Arvanitis, 2019). Additionally, the outdoors setting can engage people with therapeutic approaches (e.g., talking therapy) who otherwise might be resistant (Cooley, 2020). Therefore, OAE courses with marginalised

groups may benefit from including a trained professional to provide targeted support sessions. However, it may be the case that in the wake of COVID19, organisations will be facing financial difficulties that could impede the use of OAE courses. To capture similar psychosocial skill development benefits to OAE courses, team-based physically active games, such as the ones used in LifeMatters, could be a viable alternative (Hanrahan, 2012). Evidence suggests that team-based, physically active games promote engagement and enjoyment in older groups and are an effective vehicle for facilitating experiential learning experiences (Hanrahan & Ramm, 2015). Indeed, programmes included in the systematic review (Chapter 2), such as Leaders at Play, highlight the use of team-based activities in parks and recreation centres to promote life skill development (Frazier et al., 2015); however, this study included participants with an average of 13 years and activities may need to be adapted for older groups.

Evidence from Chapter 4 suggested experiential learning activities in MST4Life™ promoted participants' mental skills development, feelings of enjoyment and persistence with the programme. The role of experiential learning activities in fostering more intrinsically driven motivations for participation is an indication of how MST4Life™ utilises non-traditional pedagogical approaches (i.e., didactic learning in formal education) to promote feelings of autonomy and personal development (Cooley et al., 2019). Exploring different pedagogical approaches to working with older young people experiencing complex support needs is an important consideration in addressing higher dropout rates for these groups in typical educational settings (Lyche, 2010). Moreover, experiential learning may be an important pedagogical framework for programmes targeting life skills, engagement in different contexts, and connection to intrinsic motivation in emerging adults experiencing mental health issues (Walker et al., 2015).

Additionally, experiential learning in the outdoors facilitated the transfer and application of mental skills from the psychoeducational programme to the OAE component and, potentially, to other settings in their everyday lives. This proposed pathway of skill development through a psychoeducational programme, to a transfer setting (i.e., intentional context to promote continued development), and transfer back to everyday contexts has been proposed in models of life skills development in sport-based settings (Pierce et al., 2017; 2018). With a lack of independent living skills being one of the most prevalent support needs affecting young people experiencing homelessness in the UK (Homeless Link, 2018), findings from the present thesis elucidate how experiential learning may be an effective pedagogical approach to developing transferable skills. In seeking solutions to the need for more effective interventions (Homeless Link, 2018), practitioners should consider implementing experiential learning approaches to address social exclusion issues (e.g., not engaged in education, employment, or training), especially in the wake of COVID19.

Exploring effective approaches to structuring youth programmes in the wake of COVID19 is a timely contribution, as young people are likely to be disproportionately affected by unemployment and, subsequently, experience higher risks of poor health (Achdut & Refaeli, 2020; Francis-Devine, 2021). Although programmes underpinned by experiential learning cannot guarantee employment, they are likely to prepare young people with a fuller range of intra- and interpersonal skills that are valuable for the workplace and further education (May, 2018; Universities Canada, 2018). For example, experiential learning programmes can promote self-regulatory processes (e.g., reflection skills; Sibthorp et al., 2015), linked with feelings of autonomy in career choices and pursuit of relevant career goals in emerging adults (Praskova et al., 2015). Nonetheless, finding creative ways of promoting experiential learning, which often involves team-based and hands-on styles of learning, is needed if social distancing restrictions act as barriers to in-person learning programmes

(Prata-Linhares et al., 2020). While the outdoors does present an option to enclosed spaces, outdoors programmes can be expensive, and with many youth organisations facing finical difficulties following the economic impact of COVID19, outdoors programmes may not be possible (Mental Health Foundation Scotland, 2020). In response, charities and organisations are finding innovative solutions, including the use of online resources and remodelling service delivery (Neighbourly, 2020); a process that should continue to be informed by service users' voices in a participant-led approach (Davenport et al., 2020; Sprague Martinez, 2020).

A participant-led approach to evaluating the MST4Life™ programme in the present study was the diary room method. The diary room method was first implemented when evaluating an OAE programme for undergraduate students (Cooley et al., 2014b). When evaluating MST4Life™, the diary room method was designed to be used flexibly and driven by how participants wanted to engage with it. As a result, the diary room was a popular data collection tool that helped participants overcome barriers to participation, including a lack of confidence and learning difficulties. The diary room method is an example of a flexible and participatory approach that can empower young people to co-design research processes, especially when discussing sensitive or personal issues (Conolly, 2008; Nicholas et al., 2012). Although research has outlined the importance of participatory methods when conducting research with vulnerable groups, specific methods that can facilitate power equity are less well known (Bradbury-Jones et al., 2018). The diary room method can serve as an effective data collection tool for community-based researchers working with vulnerable young people to promote agency and collaboration in the research process; for example, by allowing participants to direct how it is implemented (e.g., peer interviewing, with or without a researcher present, where it takes place, with or without the use of a camera). It may also be

an effective tool for organisations to gather feedback on their service and empower young people in decision-making processes.

Strengths and Limitations

A strength of the present thesis was the paradigmatic and methodological coherence between the transformative paradigm and interpretivist principles adopted during qualitative data collection. Collecting qualitative data was critical to exploring the complex and novel facets of MST4Life™ and co-constructing a research process informed by community-based participatory research (CBPR). Moreover, an interpretivist-informed qualitative approach adds a unique contribution to understanding outdoor programmes through a PYD lens (Bowers et al., 2019; Bowen & Neil, 2016; Mercier et al., 2019). Findings contribute novel insights (population and methodological approach) to a body of evidence highlighting the therapeutic and skill-building benefits of outdoor settings in marginalised young people (Bowers et al., 2019; Browne et al., 2019; Harper et al., 2019; Mercier et al., 2019).

Methodological and paradigmatic coherence was also evidenced through the application of different data collection methods. For example, in Chapter 4, a combination of the diary room method, semi-structured interviews and focus groups were used to collect data from young people, housing staff and OAE instructors, respectively. Thus, the trustworthiness of the findings was enhanced by triangulating data sources and collection methods in this study (Barbour, 2001). Notably, the application of data collection methods was informed by participants. Grounded in tenets of CBPR, flexibility in data collection methods supported participants to engage with the research in a way that fostered autonomy and ownership and feelings of safety. From a pragmatic stance, the present thesis demonstrated a reflexive application of appropriate methods for the research questions and worked most effectively in the research context (Morgan, 2014).

Despite methodological strengths, the influence of social desirability on the findings should be acknowledged. Social desirability can be pertinent in community-based research, where uneven power dynamics between researchers and community members can occur (Wallerstein et al., 2019). However, intentional steps to limit social desirability were taken. For example, good rapport was established with participants and data collection was conducted in private spaces where the likelihood of being overheard by others was reduced (Bergen & Labonté, 2020). On the other hand, rapport alone is not enough to limit social desirability, and there is research to suggest a strong sense of rapport between participant and researcher may, in fact, increase the risk of social desirability when talking about a difficult subject (Latkin et al., 2016). Additionally, during semi-structured interviews and focus groups, strategies such as probing and prefacing questions with a broad context were utilised to clarify different perspectives and check for appropriate understanding (Bergen & Labonté, 2020). The risk of social desirability was reduced in the diary room method when an interviewer was not present (Cooley et al., 2014b). When an interviewer was present, guidelines for effective interview techniques such as being tolerant of silence, avoiding unnecessary interruptions, and demonstrating non-judgmental reactions were applied (Hastie & Hay, 2012). Future qualitative research that aims to mitigate the effects of social desirability in community-based settings may look to use story completion methods (Clarke et al., 2017). One version of a story completion method is to invite participants to respond to 'hypothetical' questions from a third-person perspective. Developing a third-person narrative means participants can take less ownership over their responses which may facilitate less reserved engagement with data collection (Clarke et al., 2017).

There were also strengths and limitations of the self-selecting sampling approach adopted in the present thesis. When implementing MST4Life™ young people were invited to take part in the research, an option that did not affect their participation in the programme.

This autonomy-supportive and inclusive approach has been advocated when conducting research with socially excluded young people and should be considered a strength of the present thesis (Conolly, 2008). Nonetheless, through a process of self-selection, it is possible data were only collected from participants (e.g., young people and staff) who showed high levels of engagement with MST4Life™ and had a positive perception of it. Additionally, there may have been differences in personal or social characteristics that influenced whether a young person or staff member participated in the research. For instance, it could be suggested that participants included in the final sample showed greater readiness for engagement (i.e., higher levels of self-efficacy and the necessary support to initiate change; Cluss et al., 2006) than those who did not participate in MST4Life™. This issue may be pertinent in Chapter 5, where an evaluation of MST4Life™'s OAE component only captured the views of participants who attended and engaged in Phase 1. To understand possible differences between those who did and did not participate in the OAE component, an independent sample T-test revealed no significant differences in psychological qualities, including resilience, well-being, and self-worth (see Chapter 5).

Additionally, triangulation of data sources was achieved when collecting data from housing staff and OAE instructors. Amongst staff participants, there were different engagement levels with MST4Life™, ranging from helping to design the programme from the initial pilot stages to encountering the programme for the first time. Moreover, young people discussed by staff and OAE instructors represented a range of different personalities, demographics, and experiences of the programme.

The diverse nature of participants increases the likelihood that the resulting sample was heterogeneous and enhances the transferability of findings (Jager et al., 2017). Indeed, the transferability of findings is not necessarily a prerequisite of high-quality qualitative research when conducted from an interpretivist stance (Braun & Clarke, 2013). However, to

276

enhance knowledge translation through the broader MST4Life™ project, demonstrating the transferability of research conducted can maximise the potential impact of findings produced and conclusions drawn. To aid the transferability of findings, thick descriptions of themes and theory-driven conceptual models have been provided (Chapters 4 and 5; Nowell et al., 2017; Tracy, 2010). Moreover, strategies applied in the present thesis, such as researcher reflexivity, triangulating data sources, and critical discussions with stakeholders and colleagues, strengthen the findings' trustworthiness (Braun & Clarke, 2019; Smith & McGannon, 2018).

The present thesis's overall sample was also strengthened through data being collected over multiple years and across multiple iterations of MST4Life™. Demonstrating patterns across the narratives of participants during various iterations of MST4Life™ helps identify core elements of the programme that are perceived to be effective across multiple cohorts of participants. On the other hand, it could be argued that as the programme evolves, research is required to understand the impact of new iterations. Findings from other studies highlight the effectiveness of MST4Life™ across different cohorts and provide evidence for consistent programme delivery across multiple iterations (Cooley et al., 2019; Quinton et al., 2021; Tidmarsh et al., 2021). The present thesis contributes to a growing evidence base for the effectiveness of MST4Life™. Specifically, demonstrating the consistency of findings in data collected from the OAE component over a five-year period strengthens conclusions drawn regarding what works for young people experiencing complex support needs in OAE settings. More broadly, findings from the present thesis contribute to theories of change that can enhance the effectiveness and accessibility of outdoor-based programmes for marginalised young people (Browne et al., 2019).

In both studies a pertinent limitation that may have influenced findings was the framing of questions asked, particularly to participants of the programme. In keeping with the

strengths-based nature of the programme, questions presented to participants in the diary room were designed to bring attention to their strengths and accomplishments. In part, the strengths-based nature of the diary room questions was to support young people to reflect on their development and, in this sense, the diary room was part of the intervention. Nonetheless, the positive wording of questions may have elicited overly positive perceptions of the programme and overlooked potential negatives. Additional data from staff and OAE instructors was one strategy to reduce the risk of positive bias influencing findings through triangulation of perspectives; however, the in-depth evaluation of the OAE component was driven by data collected from participants. Owing to the risk of positive bias influencing results, findings from the present thesis should be interpreted with caution.

One limitation that could be made about the systematic review conducted in the present thesis (Chapter 3) is that the scope of strengths-based programmes included may have been too narrow. The review's scope was expanded by using broad and evidence-based inclusion criteria, which helped minimise the risk of relevant studies being missed. Additionally, consultation with a librarian with expertise in literature searching and a research team with experience in conducting systematic reviews strengthened the review's design and implementation. Findings from the review suggested very limited research had been conducted on older young people (i.e., 16-25 years). However, a recent literature review does highlight the application of other strengths-based programmes applied in emerging adults with complex support needs (Walker, 2015). Thorough literature searching was conducted in preparation for, and throughout, the completion of this thesis (as presented in Chapter 1) to ensure critical research was not overlooked. The systematic review highlighted novel gaps in the existing evidence for physical activity-based PYD programmes to have significant health and societal benefits in groups of young people underrepresented in the research.

Future Research

Building upon findings from the present thesis, there are several lines of enquiry for future research. Future review and empirical research would benefit from exploring the theoretical underpinnings of existing strengths-based programmes for young people experiencing homelessness and other socially disadvantaged groups. As already discussed, the present thesis applied a multi-theoretical approach to understanding how and why MST4Life™ is an effective intervention. A multi-theory model of PYD programmes has been encouraged in previous research to strengthen the explanatory capacity of PYD frameworks (Brink & Wissing, 2012). Theoretical coherence in strengths-based programmes can contribute to developing a theory of change models that can inform applied practice and policy changes (Walker et al., 2015). To broaden the application and effectiveness of PYD programmes in socially disadvantaged groups, future research that further explores the following theories and applied practices would yield valuable insights.

Self-Determination Theory (SDT)

Future research could explore how needs satisfaction theory can be used to inform PYD programmes' delivery style to foster sustained engagement in groups of young people at higher risk of dropout; for example, to what extent is a needs-supportive climate a mediating variable in creating adaptive development regulations and promoting healthy developmental growth? Additionally, how, if at all, does need satisfaction differ for socially disadvantaged groups (e.g., taking a psychologically informed approach to supporting feelings of relatedness)? These questions invite future research to critically examine the extent to which interventions can challenge feelings of relatedness associated with harmful social groups (e.g., extremist groups or gangs) and promote a sense of belonging with helpful and healthy social groups (Hales & Williams, 2018). Additionally, basic psychological needs theory

requires further critical investigation in a wider range of groups; for example, research has suggested basic psychological needs in marginalised groups are complex and should be considered in light of the nuanced social inequalities different groups face (Hales & William, 2018; Hyde, 2012; Scheilden, 2020).

Ecological Systems Theory

A pertinent question that could be addressed in future research is, what does healthy developmental growth look like for young people in socially disadvantaged communities? It has been suggested that PYD programmes can promote protective factors to buffer against harmful social influences (Bonnell et al., 2016; Melendez-Torres et al., 2016; Urban et al., 2010); however, beyond protective factors, what does the future trajectory of socially disadvantage young people look like? It could be suggested that PYD has a responsibility to empower young people to challenge social injustices they face (i.e., critical consciousness as the 7th C; Gonzalez, 2021). The concept of critical consciousness may be of interest in studies with older young people and emerging adults as they begin to shape and challenge their sense of self-identity (Wood et al., 2017). In line with developing critical consciousness, future research that implements ecological systems theory with social justice theory can promote meaningful changes across multiple layers of inequalities (Kind & Travers, 2017; Lauer et al., 2018). Nonetheless, interventions that implement ecological systems theory should endeavour to understand the narratives of marginalised young people in the process of exploring the nuances of social inequalities and, in doing so, finding effective ways of promoting personal resilience and social capital (Messel, 2015; Pinkerton & Dolan, 2007). Future research guided by ecological systems theory can contribute to establishing theories of change when working with young people experiencing complex support needs (Walker, 2015).

Developmental Systems Theory

PYD research stems from underpinning research that suggests young people's cognitive and social development is most malleable during adolescence (Lerner & Overton, 2008; Lerner et al., 2015). However, high levels of neuroplasticity are still present in emerging adulthood, suggesting this may also be a critical developmental period for intervention (Wood et al., 2017). With recent research evidencing how the period of adolescence extends into the twenties (Sawyer et al., 2018), there is a need for PYD to expand its theoretical and applied applicability to encompass emerging adults. For example, in light of the developmental benefits of mutually beneficial relations between young people and their social circles (Overton & Lerner, 2008), there is a need for research to critically examine how these dynamics are constructed in emerging adults experiencing separation anxiety stemming from family difficulties (Kins et al., 2013). Research that contributes to advancing theory and applied practice of developmental systems can be implemented to design theory-informed interventions for emerging adults experiencing social anxiety and exclusion (Homeless Link, 2018; Lerner et al., 2015; Krabbenborg et al., 2015).

Positive Youth Development (PYD)

Future directions for PYD research could also include further exploration of the five Cs model in diverse groups. Findings from Chapter 5 make a strong case for social competence as an influential developmental outcome for promoting balance development across the five Cs. Although previous research has evidenced the need for awareness of balanced development of the Cs to avoid maladaptive development regulations (Geldhof et al., 2019), the present thesis is the first to propose how social competence may be an influential construct to achieve such ends. Exploring social competence with qualitative and quantitative methods would provide valuable insights into how social competence is defined

from different stakeholders' perspectives and the extent to which it is a mediating variable in predicting balanced development across the five Cs.

The five Cs model also includes a 6th C of contribution (Lerner et al., 2005), and, more recently, a 7th C of critical consciousness has been proposed (Gonzalez, 2021). Critical consciousness is reflected in young people who have a critical understanding of social hierarchies and inequalities, particularly those relevant to oneself, and take action to change these social conditions (Freire, 1993; 2000). When considered through the lens of health models, namely the Transdomain Model of Health (Manwell et al., 2015), critical consciousness is reflective of agency, that is, "the ability to choose one's level of social participation" (Manwell et al., 2015, p. 9). Moreover, critical consciousness resonates with the idea of social capital, which is reflected in one's ability to benefit from and contribute to resources in society (Bourdieu & Wacquant, 1992). Developing critical consciousness through PYD could be a viable avenue to building young people's sense of social capital, agency, and, subsequently, positive social health outcomes. Future research would benefit from exploring both critical consciousness and contribution in older young people and emerging adults. For example, how can existing definitions of contribution be expanded to reflect how critical consciousness can empower young people to make positive and impactful changes in their communities? However, it may also be the case that some young people with complex support needs require the development of foundational skills before developing and acting upon critical consciousness. This process is demonstrated in MST4Life™, with many participants often going on to engage in the youth advocacy group, Youth Voice (https://youth-voice.co.uk/). Future research that further explores mechanisms for developing critical consciousness and underpinning skills and qualities that empower a young person to act upon it would inform PYD frameworks that strive toward social justice (Gonzalez, 2021).

Sport Psychology

When looking specifically at the strengths-based approaches applied in the present thesis, there is scope for additional research to explore the boundaries of sport psychology. Future research can further investigate how sport psychology can be utilised to improve outcomes in disadvantaged groups beyond sports settings (e.g., Hanrahan 2005; Hanrahan & Ramm, 2015; McMahon & Hanrahan, 2020). The core principles of sport psychology align with participant-led and strengths-based approaches being advocated for and proven to be effective in youth housing services (Cooley et al., 2019; Cumming et al., 2021; Heinze et al., 2013; Homeless Link, 2018; Krabbenborg et al., 2015; Quinton et al., 2021; Stuart & Perris, 2017). Additionally, sport psychology brings unique connotations with understanding the best of human performance that can help mobilise strengths-based approaches in a way that is non-stigmatising and feels removed from counselling approaches. In particular, MST is a participant-centred framework that gives practitioners the flexibility to support their clients' needs while also having a systematic approach. Future research that explores how sport psychology and MST can be applied in community settings can fulfil calls for sport psychologists to use their skillset to tackle social injustices (Schinke et al., 2015).

Psychologically Informed Environments (PIE)

Although PIE is not specifically a theory, PIE frameworks provide targeted guidance for practitioners working with young people who have experienced, or are still experiencing, trauma (Johnson & Haigh, 2010). With PYD being advocated in diverse communities, namely young people experiencing homelessness (Lerner et al., 2011), ethical considerations of future research should include PIE training for researchers and practitioners. This point is of particular salience in programmes that advocate positive-adult youth relationships (i.e., many PYD and mentoring programmes; Lerner et al., 2005). Moreover, PIE frameworks could be expanded to consider theoretical insights from positive psychology and developmental sciences; this has been exemplified in the application of principles from SDT

in staff practices in Dutch housing services (Krabbenborg et al., 2017b) and skills-based programmes in UK youth housing services (Cooley et al., 2019; Quinton et al., 2021; Stuart & Perris, 2017). Future research could also explore how similar principles from SDT-informed practice (i.e., needs-supportive behaviours) and skills-based development could extend to staff training to provide a better quality of service and promote staff well-being (Cumming et al., 2021).

The Diary Room Method

Future research should consider implementing the diary room method to engage young people in the research process and work flexibly to meet their needs from an evaluative perspective. For example, the diary room could be implemented as a method to facilitate autonomy (i.e., choosing how to engage with the method, as exemplified in the present thesis) in the research process when working with vulnerable young people (Bradbury-Jones et al., 2018). Alternatively, the efficacy of the diary room method as a skill-building tool could be further explored. In MST4Life, the diary room supported participants to develop self-reflection skills and build self-awareness; in light of these benefits, future research that evaluates links between diary room engagement and the development of psychosocial skills and qualities can broaden the utility of the method.

Additional research that captures how young people engage with the diary room is also required. When evaluating MST4Life™, the diary room used a semi-structured approach with predetermined questions, which resulted in relatively short responses being given (i.e., the duration of diary room entries was rarely longer than 10 minutes). Future research that explores how the diary room can facilitate longer reflections (e.g., use of more open-ended questions) would be advantageous to developing the method's utility in programme evaluations. For example, the method could be applied to facilitate story completion

284

approaches to data collection (Clarke et al., 2017), enabling young people to engage with hypothetical questions in the third person and potentially reducing social desirability effects. Moreover, future research should explore how the diary room can promote participant-led decision-making in research processes, exploring how the method can promote participant autonomy in the kinds of questions asked and how it is implemented. Participants generally seemed to enjoy the diary room method; however, it was noted that they often needed time and engagement in MST4Life™ to build the confidence to complete diary room entries independently (i.e., how the method was initially designed to be used; Cooley et al., 2014b). Future research that explores participants' experiences of engaging with the diary room and potential barriers to engagement, such as low confidence, learning difficulties, or adequate facilities to create separate spaces for implementation, would provide valuable insights into the method's applicability in community settings and with vulnerable groups of young people.

Evaluative Approaches

Another evaluative approach that future research would benefit from implementing is a realist evaluation. Such an approach can uncover the nuanced context, mechanism, and outcome variables that permeate the research process in community settings (Jagosh et al., 2015). Additional realist evaluations of strengths-based approaches to working with young people experiencing homelessness can contribute to developing a generalisable theory of change models and best practice frameworks (e.g., Walker, 2015). A development of this nature could help identify core features of strengths-based approaches that are effective across different young people. Future research conducting mixed-methods evaluation and collecting follow-up data would have the advantage of corroborating stakeholders' perceptions of what works with quantitative measures of effectiveness to build a detailed understanding of a programme's mechanisms and impact.

Moreover, different study designs would help diversify and strengthen the existing evidence base for strengths-based approaches to working with socially disadvantaged young people. In the present thesis, the extent to which findings can be generalised is limited owing to the lack of a control or comparison group and the difficulties encountered when providing a rigorous synthesis in the systematic review. Future randomised control trials (RCTs) and meta-analyses would address these limitations and critique claims of effectiveness (e.g., see McMahon & Hanrahan 2020; Ciocanel et al., 2017). However, researchers should consider the potential limitations of RCTs in community-based settings; for instance, RCTs may not fully account for the effects of different social contexts (Bonnell et al., 2012). Moreover, a reductionist perception (i.e., cause and effect hypotheses) through an RCT may overlook nuanced relationships between complex social interactions in community-based settings (Brady & Regan, 2009). Future studies may want to consider RCTs through the lens of a realist evaluation framework, an approach that is feasible due to the methodological neutrality of realist evaluations and realist evaluation frameworks being better suited to complex social interventions (Bonell et al., 2016b).

Physical Activity

From an applied perspective, future research would benefit from exploring the role of physical activity with young people experiencing homelessness, particularly OAE. In other disadvantaged groups, physical activity has been used as a vehicle to addressing health and social inequalities (for reviews, see Lubans et al., 2012; Hermens et al., 2017; Whitley et al., 2019); however, it appears to be seldom applied in young people experiencing homelessness. With specific reference to OAE, this could be due to funding issues with OAE courses being expensive compared to standard in-house programmes (Jabbour & Siu, 2019). Nonetheless, the present thesis and research with other groups experiencing complex support needs (e.g., Harper et al., 2019) make a compelling case for the profound impact of OAE courses in

young people's development, well-being, health, and long-term change. Although the funding required for OAE courses may appear expensive in the short-term, cost-analysis benefits of the MST4Life™ programme show the potential to result in savings to public spending:

> This positive change in the trajectories of NEET homeless young people is then translated into public savings. We estimate that the BOOST scheme [St Basils service] has resulted in a total net benefit of over £800,000. For each pound invested into one young person, society has saved £2 in the year immediately after participation. MST4Life™ provided an additional net benefit of £137,000. (Jabbour & Siu, 2019, p. 4)

However, the cost analysis report did not differentiate between the two Phases of MST4Life™; therefore, it is not possible to know how cost-effective the OAE component is (Jabbour & Siu, 2019). Moreover, the findings from the cost-analysis report should be interpreted with caution due to limited follow-up data and the span of evidence only being recorded for one year after MST4Life™ (Jabbour Siu, 2019). Future research that provides longer-term evidence (e.g., reflected in social inclusion rates and reduction in risk behaviours) with study designs that include comparisons to a control group will provide a rigorous investigation of whether or not OAE courses are a cost-effective solution to addressing health and social inequalities in young people. Alternatively, for organisations that cannot afford an OAE course, the use of physically active games (e.g., team-building activities) should be considered an accessible and low-cost approach (e.g., LifeMatters programme; Hanrahan, 2012).

Additionally, it is possible other forms of physical activity are more accessible and warrant further study. For instance, if sports initiatives are to be applied, studies evaluating how climates support young people's psychological well-being and life skills development

287

are required. Furthermore, future studies that explore how sport programmes can help young people experiencing homelessness integrate with their wider communities would be of value (e.g., Spaaij, 2012; Whitley et al., 2019). Finally, yoga-based practices should not be overlooked as an effective modality to promote emotional well-being and regulation (Frank et al., 2016). Akin to physically active games (mentioned above), yoga could be a cost-effective alternative method to promoting psychosocial health compared to OAE courses.

Conclusion

This thesis aimed to investigate the extent to which a sport psychology-informed PYD programme, MST4Life™, could improve health, well-being and developmental outcomes in young people experiencing homelessness. Findings from the studies conducted in this body of work suggest MST4Life™ is an effective programme for promoting short changes in participants' personal and social well-being, psychosocial skills, personal growth, and intrinsic motivations. Moreover, the programme appears to positively influence changes in intentions and attitudes for longer-term behavioural change and, from the perception of staff, played a role in participants' transition to independent living after the programme. More specifically, MST4Life's success was underpinned by theory-informed approaches to motivational climates (e.g., self-determination theory), learning styles (e.g., experiential learning theory), and creating adaptive developmental conditions (e.g., relational developmental systems theory). Importantly, these theoretical approaches were grounded in evidence-based guidelines and informed by the core principles of CBPR (Israel, 1998), exemplified in MST4Life™ through the collaboration of sport psychology researchers and community stakeholders. Policymakers and practitioners should consider the community-driven and rigorous nature of research conducted in the present thesis as providing a good indication of what is likely to be effective in real-life settings. Moreover, findings can provide

guidance on how sport psychology can work effectively with communities to provide access to resources and strive toward addressing social injustices (Schinke et al., 2015).

Young people and housing staff engaging in MST4Life™ identified how the outdoor adventure education (OAE) component had a powerful influence on psychosocial development, indicators of mental health, and promoting the potential for sustained change. For these reasons, commissioners should consider the cost-benefit advantages of OAE in programmes targeting young people with complex support needs. With that being said, young people will likely require a preparatory programme that equips them with the required self-regulatory skills to adaptively respond to challenges and experience personal growth in an outdoors setting. As a measure of young people's personal growth, practitioners should consider measuring the five Cs of PYD, with specific recognition of social competence, as a construct that can promote adaptive development regulations for oneself and peers.

In sum, the present thesis proposes the following core features that should be included in strength-based programmes for young people with complex support needs:

a) a participant-centred psychoeducational programme that is informed by a systematic model of change (e.g., MST, PYD);

b) the use of experiential learning opportunities that foster the transfer of skills (e.g., out-of-house workshops, physical activity setting);

c) a programme context that supports young people's basic psychological needs (e.g., PIE housing service, SDT-informed needs-supportive climate);

d) development of a conceptual model that is theory-informed and grounded in evidence from programme evaluations;

e) applied research that promotes collaboration, empowers communities, and strives towards equitable power dynamics (e.g., CBPR principles; Israel, 1998).

Based on the findings presented in this thesis and other relevant research, these core features are likely to promote healthy developmental growth. It is unwise to think conclusions drawn from MST4Life™ will be applicable in every setting. Programmes aiming to implement similar approaches should be designed in collaboration with the community to meet their specific needs and maximise their resources. Although additional research is required, policymakers and practitioners would be well advised to adopt strengths-based approaches to improve health, well-being and developmental outcomes in socially disadvantaged young people.

References

References marked with an asterisk were included in the narrative synthesis conducted for systematic review (Chapter 2).

Achdut, N., & Refaeli, T. (2020). Unemployment and psychological distress among young people during the covid-19 pandemic: Psychological resources and risk factors. *International Journal of Environmental Research and Public Health*, *17*(19), 1–21. https://doi.org/10.3390/ijerph17197163

Allen, D. (2002). Research involving vulnerable young people: A discussion of ethical and methodological concerns. *Drugs: Education, Prevention and Policy*, *9*(3), 275–283. https://doi.org/10.1080/09687630210129547

Altena, A. M., Beijersbergen, M. D., Vermunt, J. K., & Wolf, J. R. L. M. (2018). Subgroups of Dutch homeless young adults based on risk- and protective factors for quality of life: Results of a latent class analysis. *Health and Social Care in the Community*, *26*(4), e587–e597. https://doi.org/10.1111/hsc.12578

Alvord, M. K., & Grados, J. J. (2005, June). Enhancing resilience in children: A proactive approach. *Professional Psychology: Research and Practice*. https://doi.org/10.1037/0735-7028.36.3.238

*Anderson-Butcher, D., Martin, E., Paluta, L., & Gould, D. (2018). Patterns of social skill development over-time among clusters of LiFEsports participants. *Children and Youth Services Review*, *87*(September 2017), 17–25. https://doi.org/10.1016/j.childyouth.2018.01.044

*Anderson-Butcher, D., Riley, A., Amorose, A., Iachini, A., & Wade-Mdivanian, R. (2014). Maximizing Youth Experiences in Community Sport Settings: The Design and Impact

of the LiFE Sports Camp. *Journal of Sport Management*, *28*(2), 236–249. https://doi.org/10.1123/jsm.2012-0237

Andersson, B. (2013). Finding ways to the hard to reach—considerations on the content and concept of outreach work. *European Journal of Social Work*, *16*(2), 171–186. https://doi.org/10.1080/13691457.2011.618118

Associated Press (2020). *The Associated Press Style Book*. New York (NY): Basic Books.

Balaguer, I., González, L., Fabra, P., Castillo, I., Mercé, J., & Duda, J. L. (2012). Coaches' interpersonal style, basic psychological needs and the well- and ill-being of young soccer players: a longitudinal analysis. *Journal of sports sciences*, *30*(15), 1619–1629. https://doi.org/10.1080/02640414.2012.731517

Bambra, C., Gibson, M., Sowden, A., Wright, K., Whitehead, M., & Petticrew, M. (2010). Tackling the wider social determinants of health and health inequalities: Evidence from systematic reviews. *Journal of Epidemiology and Community Health*, *64*(4), 284–291. https://doi.org/10.1136/jech.2008.082743

Bani-Fatemi, A., Malta, M., Noble, A., Wang, W., Rajakulendran, T., Kahan, D., & Stergiopoulos, V. (2020). Supporting Female Survivors of Gender-Based Violence Experiencing Homelessness: Outcomes of a Health Promotion Psychoeducation Group Intervention. *Frontiers in Psychiatry*, *11*. https://doi.org/10.3389/fpsyt.2020.601540

Barbour, R. S. (2001). Checklists for improving rigour in qualitative research: a case of the tail wagging the dog? *BMJ (Clinical research ed.), 322*(7294), 1115–1117. https://doi:10.1136/bmj.322.7294.1115

**Barker, B., & Forneris, T. (2011). Youth Fitness Programming: A Pilot Youth Fitness and Life Skill Program Implementation for At-Risk Youth. Children, Youth & Environments, 21(2), 195–203. Retrieved from http://search.ebscohost.com/login.aspx?direct=true&db=ehh&AN=73942429&site=ehost-live

*Barker, B., Halsall, T., & Forneris, T. (2016). Evaluating the `Pulse' Program: Understanding the Implementation and Perceived Impact of a `TPSR' Based Physical Activity Program for At-Risk Youth. *Agora Para La Educacion Fisica Y El Deporte*, *18*(2), 99–116. https://doi.org/10.1080/17408989.2018.1561837

Barrable, A., & Arvanitis, A. (2019). Flourishing in the forest: looking at Forest School through a self-determination theory lens. *Journal of Outdoor and Environmental Education*, *22*(1), 39–55. https://doi.org/10.1007/s42322-018-0018-5

Beamon, K. (2014). Racism and stereotyping on campus: Experiences of African American male student-athletes. *Journal of Negro Education*, *83*(2), 121–134. https://doi.org/10.7709/jnegroeducation.83.2.0121

Becker, C., Lauterbach, G., Spengler, S., Dettweiler, U., & Mess, F. (2017). Effects of regular classes in outdoor education settings: A systematic review on students' learning, social and health dimensions. *International Journal of Environmental Research and Public Health*. MDPI AG. https://doi.org/10.3390/ijerph14050485

Bender, K., Thompson, S. J., McManus, H., Lantry, J., & Flynn, P. M. (2007). Capacity for survival: Exploring strengths of homeless street youth. *Child and Youth Care Forum*, *36*(1), 25–42. https://doi.org/10.1007/s10566-006-9029-4

Benoit, C., Jansson, M., Millar, A., & Phillips, R. (2005). Community-academic research on

    hard-to-reach populations: Benefits and challenges. *Qualitative Health Research*, 15,

    263–282. https://doi.org/10.1177/1049732304267752

Benson, P. L. (2007). Developmental assets: An overview of theory, research, and practice.

    In R. K. Silbereisen & R. M. Lerner (Eds.), *Approaches to positive youth development*

    (pp. 33-58). London, England: Sage.

Bevan Jones, R., Thapar, A., Stone, Z., Thapar, A., Jones, I., Smith, D., & Simpson, S. (2018,

    May 1). Psychoeducational interventions in adolescent depression: A systematic

    review. *Patient Education and Counseling*. Elsevier Ireland Ltd.

    https://doi.org/10.1016/j.pec.2017.10.015

Bhaskar, R., Collier, A., Lawson, T., & Norrie, A. (1998). Critical realism. In *Proceedings of*

    the Standing Conference on Realism and Human Sciences, Bristol, UK (Vol. 4).

Bhaskar, R. (2016). *Enlightened common sense the philosophy of critical*

    realism. Enlightened Common Sense The philosophy of critical realism (pp. 1–225).

    Taylor and Francis. https://doi.org/10.4324/9781315542942

Biddle, S. J. H., & Mutrie, N. (2008). *Psychology of physical activity: determinants, well-*

    being, and interventions. Routledge, London.

Bissett, J. E., Kroshus, E., & Hebard, S. (2020, January 27). Determining the role of sport

    coaches in promoting athlete mental health: A narrative review and Delphi

    approach. *BMJ Open Sport and Exercise Medicine*. BMJ Publishing Group.

    https://doi.org/10.1136/bmjsem-2019-000676

Biswas-Diener, R., & Patterson, L. (2011). An experiential approach to teaching positive

    psychology to undergraduates. *The Journal of Positive Psychology, 6*(6), 477–

    481. https://doi.org/10.1080/17439760.2011.634818

Blakemore, S. J., & Robbins, T. W. (2012). Decision-making in the adolescent brain. Nature

    Neuroscience, 15(9), 1184–1191. https://doi.org/10.1038/nn.3177

Bohman, J. (2002). How to Make a Social Science Practical: Pragmatism, Critical Social

    Science and Multiperspectival Theory. *Millennium*, *31*(3), 499–

    524. https://doi.org/10.1177/03058298020310030701

Bonell, C., Fletcher, A., Morton, M., Lorenc, T., & Moore, L. (2012). Realist randomised

    controlled trials: a new approach to evaluating complex public health

    interventions. *Social science & medicine (1982)*, *75*(12), 2299–2306.

    https://doi.org/10.1016/j.socscimed.2012.08.032

Bonell, C., Hinds, K., Dickson, K., Thomas, J., Fletcher, A., Murphy, S., … Campbell, R.

    (2016). What is positive youth development and how might it reduce substance use

    and violence? A systematic review and synthesis of theoretical literature. *BMC Public*

    Health, *16*(1). https://doi.org/10.1186/s12889-016-2817-3

Bonell, C., Warren, E., Fletcher, A., & Viner, R. (2016b). Realist trials and the testing of

    context-mechanism-outcome configurations: A response to Van Belle et al. *Trials*.

    BioMed Central Ltd. https://doi.org/10.1186/s13063-016-1613-9

Bourke, B. (2014). Positionality: Reflecting on the research process. *The Qualitative*

    Report, *19*(33), 1–9. https://nsuworks.nova.edu/tqr/vol19/iss33/3/

*Bowen, D. J., & Neill, J. T. (2016). Effects of the PCYC Catalyst outdoor adventure

    intervention program on youths' life skills, mental health, and delinquent behaviour.

International Journal of Adolescence and Youth, *21*(1), 34–55.

https://doi.org/10.1080/02673843.2015.1027716

Bowers, E. P., Larson, L. R., & Parry, B. J. (2021). Nature as an Ecological Asset for Positive

Youth Development: Empirical Evidence From Rural Communities. *Frontiers in*

Psychology, *12*. https://doi.org/10.3389/fpsyg.2021.688574

*Bowers, E. P., Larson, L. R., & Sandoval A. M. (2019) Urban Youth Perspectives on the

Benefits and Challenges of Outdoor Adventure Camp. *Journal of Youth Development,*

14(4) 122-143 https://doi.org/10.5195/jyd.2019.809

Bowers, E. P., Larson, L. R., & Sandoval A. M. (2019) Urban Youth Perspectives on the

Benefits and Challenges of Outdoor Adventure Camp. Journal of Youth

Development, 14(4) 122-143 https://doi.org/10.5195/jyd.2019.809

Bowers, E. P., Li, Y., Kiely, M. K., Brittian, A., Lerner, J. V., & Lerner, R. M. (2010). The

Five Cs model of positive youth development: A longitudinal analysis of

confirmatory factor structure and measurement invariance. *Journal of Youth and*

Adolescence, 39(7), 720–735. https://doi:10.1007/s10964-010-9530-9

Bowers, E. P., Wang, J., Tirrell, J. M., & Lerner, R. M. (2016). A cross-lagged model of the

development of mentor-mentee relationships and intentional self-regulation in

adolescence. *Journal of Community Psychology*, *44*(1), 118–138.

https://doi.org/10.1002/jcop.21746

Bradbury-Jones, C., Isham, L., & Taylor, J. (2018). The complexities and contradictions in

participatory research with vulnerable children and young people: A qualitative

systematic review. *Social Science and Medicine*. Elsevier Ltd.

https://doi.org/10.1016/j.socscimed.2018.08.038

Brady, B., & O'Regan, C. (2009). Meeting the challenge of doing an RCT evaluation of youth mentoring in Ireland: A journey in mixed methods. *Journal of Mixed Methods Research*, *3*(3), 265–280. https://doi.org/10.1177/1558689809335973

Brandtstädter, J. (2006). Action perspectives on human development. In R. M. Lerner (Vol. Ed.) & W. Damon & R. M. Lerner (Eds.), *Handbook of child psychology: Vol. 1. Theoretical models of human development* (6th ed., pp. 516-568). Hoboken, NJ: John Wiley.

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, *3*(2), 77–101. https://doi.org/10.1191/1478088706qp063oa

Braun, V., & Clarke, V. (2013). *Successful qualitative research: A practical guide for beginners.* London: SAGE.

Braun, V., & Clarke, V. (2019). Reflecting on reflexive thematic analysis. Qualitative Research in Sport, Exercise and Health, 11(4), 589–597. https://doi.org/10.1080/2159676X.2019.1628806

Braun, V., Clarke, V., Hayfield, N., & Terry, G. (2018). Thematic Analysis. In P. Liamputtong (Ed.), *Handbook of Research Methods in Health Social Sciences* (pp. 1-18). Springer. https://doi.org/10.1007/978-981-10-2779-6_103-1

Brendel D. (2004). Healing psychiatry: a pragmatic approach to bridging the science/humanism divide. *Harvard review of psychiatry*, *12*(3), 150–157. https://doi.org/10.1080/10673220490472409

Brink, A. J. W., & Wissing, M. P. (2012, July 1). A model for a positive youth development intervention. *Journal of Child and Adolescent Mental Health*. https://doi.org/10.2989/17280583.2012.673491

Browne, L. P., Gillard, A., & Garst, B. A. (2019). Camp as an Institution of Socialization:

Past, Present, and Future. *Journal of Experiential Education,* 42(1), 51–64.

https://doi.org/10.1177/1053825918820369

Bruce, B. C., & Bloch, N. (2013). Pragmatism and Community Inquiry: A Case Study of

Community-Based Learning. *Education and Culture*, *29*(1), 27–45.

https://doi.org/10.1353/eac.2013.0004

Bryman, A. (2015). *Social research methods*. Oxford: Oxford University Press.

Buelens, E., Theeboom, M., Vertonghen, J., & De Martelaer, K. (2017). Conditions for

Successfully Increasing Disadvantaged Adolescents' Engagement in and

Development through Volunteering in Community Sport. *Social Inclusion*, *5*(2), 179.

https://doi.org/10.17645/si.v5i2.895

Bulanda, J. J., Bruhn, C., Byro-Johnson, T., & Zentmyer, M. (2014). Addressing mental

health stigma among young adolescents: Evaluation of a youth-led approach. *Health

and Social Work*, *39*(2), 73–80. https://doi.org/10.1093/hsw/hlu008

Butler, R. J., and Hardy, L. (1992). The performance profile: theory and application. *Sport

Psychol.* 6, 253–264. https://doi.org/10.1123/tsp.6.3.253

Cacioppo, J. T., Semin, G. R., & Berntson, G. G. (2004, May). Realism, instrumentalism, and

scientific symbiosis: Psychological theory as a search for truth and the discovery of

solutions. *American Psychologist*. https://doi.org/10.1037/0003-066X.59.4.214

Canadian Observatory on Homelessness (2019). *Canadian definition of youth homelessness

https://www.homelesshub.ca/resource/canadian-definition-youth-homelessness

Cardemil, E. V., Reivich, K. J., Beevers, C. G., Seligman, M. E. P., & James, J. (2007). The

prevention of depressive symptoms in low-income, minority children: Two-year

follow-up. *Behaviour Research and Therapy*, *45*(2), 313–327.

https://doi.org/10.1016/j.brat.2006.03.010

Carr, W. (2000). Partisanship in Educational Research. *Oxford Review of Education*, *26*(3–4), 437–449. https://doi.org/10.1080/713688539

Carter, W. M., Morse, W. C., Brock, R. W., & Struempler, B. (2019). Improving physical activity and outdoor recreation in rural Alabama through community coalitions. *Preventing Chronic Disease*, *16*(8). https://doi.org/10.5888/pcd16.190062

Caspersen, C. J., Powell, K. E., & Christenson, G. M. (1985). Physical activity, exercise, and physical fitness: definitions and distinctions for health-related research. *Public health reports (Washington, D.C. : 1974)*, *100*(2), 126–131. Retrieved from /pmc/articles/PMC1424733/?report=abstract%0Ahttps://www.ncbi.nlm.nih.gov/pmc/articles/PMC1424733/

Catalano, R. F., Berglund, M. L., Ryan, J. A. M., Lonczak, H. S., & Hawkins, J. D. (2004). Positive Youth Development in the United States: Research Findings on Evaluations of Positive Youth Development Programs. *Annals of the American Academy of Political and Social Science*, *591*(January), 98–124. https://doi.org/10.1177/0002716203260102

Catalano, R. F., Hawkins, D. J., & Toumbourou, J. W. (2008). Positive youth development in the United States: History, efficacy, and links to moral and character education. Handbook of moral and character education, 1-483. https://doi.org/10.4324/9780203931431-33

Chapman, D. P., Whitfield, C. L., Felitti, V. J., Dube, S. R., Edwards, V. J., & Anda, R. F. (2004). Adverse childhood experiences and the risk of depressive disorders in

adulthood. *Journal of Affective Disorders*, *82*(2), 217–225.

https://doi.org/10.1016/j.jad.2003.12.013

Chou, F., Kwee, J., Lees, R., Firth, K., Florence, J., Harms, J., … Wilson, S. (2015). Nothing about us without us! Youth-led solutions to improve high school completion rates. *Educational Action Research*, *23*(3), 436–459.

https://doi.org/10.1080/09650792.2015.1013047

Clarke, F., Parry B. J., Quinton, M. L., & Cumming J. (2020b). *Mental Skills Training Commissioning and Evaluation Toolkit: Improving Outcomes in Young People Experiencing Homelessness or At Risk*. https://www.sprintproject.org/toolkit

Clarke, F.J., Quinton, M., Parry, B., Fenton, S.-J., & Cumming, J. (2020a). *Closing the knowledge to practice gap: Advancing strengths-based practice in youth homeless services through co-created knowledge translation.* Birmingham, UK: Authors. https://www.sprintproject.org/impact

Clarke, V., Hay, N., & Moller, N. (2017). Once Upon a Time ... Qualitative Story Completion Methods. In *Qualitative Data: a Practical Guide To Textual, Media and Virtual Techniques* (pp. 45–70).

Cluss, P. A., Chang, J. C., Hawker, L., Scholle, S. H., Dado, D., Buranosky, R., & Goldstrohm, S. (2006). The process of change for victims of intimate partner violence: support for a psychosocial readiness model. *Women's health issues : official publication of the Jacobs Institute of Women's Health*, *16*(5), 262–274. https://doi.org/10.1016/j.whi.2006.06.006

Coakley, J. (2011). Youth sports: What counts as "positive development?" *Journal of Sport and Social Issues*, *35*(3), 306–324. https://doi.org/10.1177/0193723511417311

Coalter, F. (2013). "There is loads of relationships here": Developing a programme theory for sport-for-change programmes. *International Review for the Sociology of Sport*, *48*(5), 594–612. https://doi.org/10.1177/1012690212446143

Coates, J., & McKenzie-Mohr, S. (2010). Out of the frying pan, into the fire: Trauma in the lives of homeless youth prior to and during homelessness. *Journal of Sociology and Social Welfare*, *37*(4), 65–96. https://psycnet.apa.org/record/2010-26304-004

Cohen, L., Manion, L., & Morrison, K. (2007). Research methods in education (6th Edition). London: Routledge.

Cole, F. (2010). Physical activity for its mental health benefits: Conceptualising participation within the Model of Human Occupation. *British Journal of Occupational Therapy*, *73*(12), 607–615. https://doi.org/10.4276/030802210X12918167234280

Coghlan, D., & Brydon-Miller, M. (Eds.). (2014). The SAGE encyclopedia of action research. Sage.

*Collingwood, T. R., Sunderlin, J., Reynolds, R., & Kohl, H. W. (2000). Physical Training as a Substance Abuse Prevention Intervention for Youth. Journal of Drug Education, 30(4), 435–451. https://doi.org/10.2190/RVUE-9XW7-TYRQ-EJR8

Collins, C., Mccrory, M., Mackenzie, M., & Mccartney, G. (2015). Social theory and health inequalities: Critical realism and a transformative activist stance? *Social Theory and Health*, *13*(3–4), 377–396. https://doi.org/10.1057/sth.2015.13

Collins, M., & Kay, T. (2014). Sport and social exclusion 2nd edition. Sport and Social Exclusion 2nd Edition (pp. 1–338). Taylor and Francis.

Collins, S. E., Clifasefi, S. L., Stanton, J., Straits, K. J. E., Gil-Kashiwabara, E., Espinosa, P. R., … Wallerstein, N. (2018). Community-based participatory research (CBPR):

Towards equitable involvement of community in psychology research. *American Psychologist*, *73*(7), 884–898. https://doi.org/10.1037/amp0000167

Collins, S. E., Jones, C. B., Hoffmann, G., Nelson, L. A., Hawes, S. M., Grazioli, V. S., … Clifasefi, S. L. (2016). In their own words: Content analysis of pathways to recovery among individuals with the lived experience of homelessness and alcohol use disorders. *International Journal of Drug Policy*, *27*, 89–96. https://doi.org/10.1016/j.drugpo.2015.08.003

Conolly, A. (2008). Challenges of generating qualitative data with socially excluded young people. *International Journal of Social Research Methodology*, *11*(3), 201–214. https://doi.org/10.1080/13645570701401446

Conway, R. J., Heary, C., & Hogan, M. J. (2015). An evaluation of the measurement properties of the five Cs model of Positive Youth Development. *Frontiers in Psychology*, *6*(DEC). https://doi.org/10.3389/fpsyg.2015.01941

Cook, A., Spinazzola, J., Ford, J., Lanktree, C., Blaustein, M., Cloitre, M., … van der Kolk, B. (2005). Complex trauma in children. *Psychiatric Annals, 35*(5), 390–398. https://doi.org/10.3928/00485713-20050501-05

Cooley, S. J. (2015c). *Developing groupwork through outdoor adventure education: A systematic evaluation of learning and transfer in higher education.* Ph.D. thesis [unpublished], School of Sport, Exercise, and Rehabilitation Sciences, Univeristy of Birmingham. https://doi.org/10.13140/RG.2.1.3836.6164

Cooley, S. J., Cumming, J., Holland, M. J. G., & Burns, V. E. (2015a). Developing the model for optimal learning and transfer (MOLT) following an evaluation of outdoor groupwork skills programmes. *European Journal of Training and Development*, *39*(2), 104–121. https://doi.org/10.1108/EJTD-06-2014-0046

Cooley, S. J., Holland, M. J. G., Quinton, M., Burns, V. E., & Cumming, J. (2014a). *Mental skills training in young people living at St Basils: An evaluation and recommendations following a pilot programme.* A report published by the University of Birmingham, UK.

Cooley, S. J., Holland, M. J. G., Quinton, M., Parry, B., & Cumming, J. (2015b). *Mental skills training for life at St Basils: Year 1 report.* A report published by the University of Birmingham, UK.

Cooley, S. J., Holland, M. J. G., Cumming, J., & Burns, V. E. (2014b). Introducing the use of a semi-structured video diary room to investigate students' learning experiences during an outdoor adventure education groupwork skills course. *Higher Education, 67*(1), 105–121. https://doi.org/10.1007/s10734-013-9645-5

Cooley, S. J., Jones, C. R., Kurtz, A., & Robertson, N. (2020, April 1). 'Into the Wild': A meta-synthesis of talking therapy in natural outdoor spaces. *Clinical Psychology Review*. Elsevier Inc. https://doi.org/10.1016/j.cpr.2020.101841

Cooley, S. J., Quinton, M., Holland, M. J. G., Parry, B., & Cumming, J. (2016). *Mental skills training for life at St Basils: Year 2 report.* A report published by the University of Birmingham, UK.

Cooley, S. J., Quinton, M. L., Holland, M. J. G., Parry, B. J., & Cumming, J. (2019). The Experiences of Homeless Youth When Using Strengths Profiling to Identify Their Character Strengths. *Frontiers in Psychology*. Advanced online publication: https://doi.org/10.3389/fpsyg.2019.02036

Cowan, D. T., Taylor, I. M., McEwan, H. E., & Baker, J. S. (2012). Bridging the Gap Between Self-Determination Theory and Coaching Soccer to Disadvantaged

Youth. *Journal of Applied Sport Psychology*, *24*(4), 361–374.

https://doi.org/10.1080/10413200.2011.650820

Creswell, J. W., & Plano Clark, V. L. (2007). *Designing and conducting mixed methods research.* Thousand Oaks, CA: SAGE.

Cronley, C., & Evans, R. (2017). Studies of resilience among youth experiencing homelessness: A systematic review. *Journal of Human Behavior in the Social Environment, 27*(4), 291–310. https://doi.org/10.1080/10911359.2017.1282912

Crotty, M. (1998). *The foundation of social research: Meaning and perspective in the research process*. Thousand Oaks, CA: Sage

Crowe, S., Cresswell, K., Robertson, A., Huby, G., Avery, A., & Sheikh, A. (2011). The case study approach. *BMC Medical Research Methodology*, *11*. https://doi.org/10.1186/1471-2288-11-100

Cumming, J., Cooley, S. J., Quinton, M. L., Serra de Queiroz, F., & Holland, M. J. G. (2015). *Working together to develop mental skills training support for St Basils staff.* A report published by the University of Birmingham, UK.

Cumming, J., Clarke, F. J., Holland, M. J. G., Parry, B. J., Quinton, M. L., Cooley, S. J. (2021b). *A Feasibility Study of the My Strengths Training for Life™ (MST4Life™) Programme for Young People Experiencing Homelessness*. [Manuscript submitted for publication]. School of Sport, Exercise, and Rehabilitation Sciences, University of Birmingham.

Cumming, J., Holland, M. J. G., Clarke, F., Parry, B. J., Quinton, M. L., & Cooley, S. J., (2021a) *The My Strengths Training for Life™ program: Rationale, logic model, and description of a strengths-based intervention for young people experiencing*

homelessness. [Manuscript accepted for publication]. School of Sport, Exercise and

Rehabilitation Sciences, University of Birmingham

Cumming, J., Skeate, A., Giles, A. (2017). *Case Study 130: St Basils Psychologically*

Informed Environments – meeting the emotional and psychological needs of young

homeless people. Housing Learning and Improvement Network.

https://stbasils.org.uk/wp-

content/uploads/2019/10/1_PIEHLIN_CaseStudy_130_StBasilsPIE_v01.pdf

Cumming, J., Quinton, M. L., & Holland, M. J. G. (2014). *Recommendations for enhancing*

mental skills of young people living at St Basils: Results of a training needs analysis.

A report published by the University of Birmingham, UK.

Cullen, D. (1994). Feminism, management and self-actualization. *Gender, Work &*

Organization, *1*(3), 127-137. https://doi.org/10.1111/j.1468-0432.1994.tb00012.x

Curran, T., & Wexler, L. (2017). School-Based Positive Youth Development: A Systematic

Review of the Literature. *The Journal of school health*, *87*(1), 71–80.

https://doi.org/10.1111/josh.12467

D'Amato, L. G., & Krasny, M. E. (2011). Outdoor adventure education: Applying

transformative learning theory to understanding instrumental learning and personal

growth in environmental education. *Journal of Environmental Education*, *42*(4), 237–

254. https://doi.org/10.1080/00958964.2011.581313

*D'Andrea, W., Bergholz, L., Fortunato, A., & Spinazzola, J. (2013). Play to the Whistle: A

Pilot Investigation of a Sports-Based Intervention for Traumatized Girls in Residential

Treatment. Journal of Family Violence, 28(7), 739–749.

https://doi.org/10.1007/s10896-013-9533-x

Dale, H., Watson, L., Adair, P., & Humphris, G. (2016). Looked after young people: Reducing health inequalities through an evidence- and theory-informed intervention. Health Education Journal, 75(7), 811–822. https://doi.org/10.1177/0017896916628577

Daley, A. J., & Duda, J. L. (2006). Self-determination, stage of readiness to change for exercise, and frequency of physical activity in young people. European Journal of Sport Science, 6(4), 231–243. https://doi.org/10.1080/17461390601012637

Damon, W. (2004). What Is Positive Youth Development*? Annals of the American Academy of Political and Social Science, 591*(January), 13–24. https://doi.org/10.1177/0002716203260092

Danermark, B., Ekstrom, M., Jakobsen, L., & Karlsson, J. C. (2005). *Explaining society: An introduction to critical realism in the social sciences*. *Explaining Society: An Introduction to Critical Realism in the Social Sciences* (pp. 1–232). Taylor and Francis. https://doi.org/10.4324/9780203996249

Danish, S. (2002). SUPER (Sports United to Promote Education and Recreation) Program: Leader Manual (Third Edition). Richmond, VA: Life Skills Center, Vir- ginia Commonwealth University.

Danish, S. J., Forneris, T., & Wallace, I. (2005). Sport-based life skills programming in the schools. *Journal of Applied School Psychology*, *21*(2), 41–62. https://doi.org/10.1300/J370v21n02_04

Darwin Holmes, A. G. (2020). Researcher Positionality - A Consideration of Its Influence and Place in Qualitative Research - A New Researcher Guide. *Shanlax International Journal of Education*, *8*(4), 1–10. https://doi.org/10.34293/education.v8i4.3232

Das Guptas, M., Engelman, R., Levy, J., Luchsinger, G., Merrick, T., & Rosen, J. E., (2014) *The Power of 1.8 billion: adolescents, youth and the transformation of the Future. State of the world population 2014.* https://doi.org/http://www.unfpa.org/sites/default/files/pub-pdf/EN-SWOP14 Report_FINAL-web.pdf

Davenport, T. A., Cheng, V. W. S., Iorfino, F., Hamilton, B., Castaldi, E., Burton, A., … Hickie, I. B. (2020, December 1). Flip the clinic: A digital health approach to youth mental health service delivery during the COVID-19 pandemic and beyond. *JMIR Mental Health.* JMIR Publications Inc. https://doi.org/10.2196/24578

Deforge, R., & Shaw, J. (2012). Back- and fore-grounding ontology: Exploring the linkages between critical realism, pragmatism, and methodologies in health & rehabilitation sciences. *Nursing Inquiry*, *19*(1), 83–95. https://doi.org/10.1111/j.1440-1800.2011.00550.x

Demetriou, A. (2000). Chapter 7 - Organization and Development of Self-Understanding and Self-Regulation: Toward a General Theory. In M. Boekaerts, P. R. Pintrich, & M. Zeidner (Eds.), *Handbook of Self-Regulation* (pp. 209–251). San Diego: Academic Press. Retrieved from http://www.sciencedirect.com/science/article/pii/B9780121098902500366

Denzin, N. K. (2010). Moments, mixed methods, and paradigm dialogs. *Qualitative Inquiry*, *16*(6), 419–427. https://doi.org/10.1177/1077800410364608

Denzin, N. K., & Lincoln, Y. S. (Eds.). (2000). Handbook of qualitative research (2nd ed.). Sage

Delia, J., & Krasny, M. E. (2018). Cultivating Positive Youth Development, Critical Consciousness, and Authentic Care in Urban Environmental Education. *Frontiers in psychology*, *8*, 2340. https://doi.org/10.3389/fpsyg.2017.02340

Dewey, J. (1997). *John Dewey: Experience and education.* Simon and Schuster.

Dewey, J. (2008). Experience and nature. In J. Boydston & S. Hook (Eds.), *The later works of John Dewey, 1925-1953* (Vol. 1, pp. 1-437). Carbondale: Southern Illinois University Press. (Original work published 1925a)

Dizon, J. M. R., & Reyes, J. J. B. (2010). A systematic review on the effectiveness of external ankle supports in the prevention of inversion ankle sprains among elite and recreational players. Journal of Science and Medicine in Sport, 13(3), 309–317. https://doi.org/10.1016/j.jsams.2009.05.002

Duberley, J., Johnso, P., Cassell, C. (2012) Philosophies underpinning qualitative research. In Symon, G., & Cassell., C. (Eds.). *Qualitative Organizational Research: Core Methods and Current Challenges* (pp. 15-34). Sage.

Dwyer, S. C., & Buckle, J. L. (2009). The Space Between: On Being an Insider-Outsider in Qualitative Research. International *Journal of Qualitative Methods*, 54–63. https://doi.org/10.1177/160940690900800105

Eccles, J., & Gootman, J. A. (2002). *Community Programs to promote Youth Development (1st ed.).* National Academy Press, Washington, DC.

Edwards, D. J., & Steyn, B. J. M. (2008). Sport psychological skills training and psychological well-being. *South African Journal for Research in Sport, Physical Education and Recreation*, *30*(1), 15–28. https://doi.org/10.4314/sajrs.v30i1.25978

Eime, R. M., Young, J. A., Harvey, J. T., Charity, M. J., & Payne, W. R. (2013). A

systematic review of the psychological and social benefits of participation in sport for

adults: Informing development of a conceptual model of health through sport.

International Journal of Behavioral Nutrition and Physical Activity, *10*(98).

https://doi.org/10.1186/1479-5868-10-135

Elliott, E. S., & Dweck, C. S. (1988). Goals: An approach to motivation and achievement.

Journal of Personality and Social Psychology, 54, 5–12.

https://doi.org/10.1037/0022-3514.54.1.5

Elliot, D., Leve, D. L., & Racer, H. K. (2018). Incorporating Positive Youth Development

into the Therapeutic Model for Incarcerated Young Woman. *Frontiers in Women's*

Health, *3*(1). https://doi.org/10.15761/fwh.1000135

Embleton, L., Lee, H., Gunn, J., Ayuku, D., & Braitstein, P. (2016). Causes of child and

youth homelessness in developed and developing countries: A systematic review and

meta-analysis. JAMA Pediatrics, 170(5), 435–444.

https://doi.org/10.1001/jamapediatrics.2016.0156

England, K. V. L. (1994). Getting personal: Reflexivity, positionality, and feminist

research. *Professional Geographer*, *46*(1), 80–89. https://doi.org/10.1111/j.0033-

0124.1994.00080.x

Egbo, B. (2005). Emergent Paradigm: Critical Realism and Transformative Research in

Educational Administration. *McGill Journal of Education*, *40*(2), 267–284. Retrieved

from https://mje.mcgill.ca/article/view/568

Evans, G. W., Fuller-Rowell, T. E., & Doan, S. N. (2012). Childhood cumulative risk and

obesity: The mediating role of self-regulatory ability. *Pediatrics*, *129*(1).

https://doi.org/10.1542/peds.2010-3647

Evans, G. W., & Kim, P. (2013). Childhood Poverty, Chronic Stress, Self-Regulation, and Coping. *Child Development Perspectives*, *7*(1), 43–48. https://doi.org/10.1111/cdep.12013

Ewert, A. W., & Sibthorp, J. (2014). *Outdoor Adventure Education: Foundations, Theory, and Research*. Human Kinetics. https://doi.org/10.5040/9781492595663

Falci, C. D., Whitbeck, L. B., Hoyt, D. R., & Rose, T. (2011). Predictors of Change in Self-Reported Social Networks Among Homeless Young People. *Journal of Research on Adolescence*, *21*(4), 827–841. https://doi.org/10.1111/j.1532-7795.2011.00741.x

Farrugia, D. (2011). The symbolic burden of homelessness: Towards a theory of youth homelessness as embodied subjectivity. *Journal of Sociology*, *47*(1), 71–87. https://doi.org/10.1177/1440783310380989

Feilzer, M. Y. (2010). Doing mixed methods research pragmatically: Implications for the rediscovery of pragmatism as a research paradigm. *Journal of Mixed Methods Research*, *4*(1), 6–16. https://doi.org/10.1177/1558689809349691

Felitti, V. J., Anda, R. F., Nordenberg, D., Williamson, D. F., Spitz, A. M., Edwards, V., … Marks, J. S. (1998). Relationship of Childhood Abuse and Household Dysfunction to Many of the Leading Causes of Death in Adults: The Adverse Childhood Experiences (ACE) Study. *American Journal of Preventive Medicine*, *56*(6), 774–786. https://doi.org/10.1016/j.amepre.2019.04.001

Freire, P. (1973). *Education for critical consciousness.* Continuum International Publishing Group.

Freire, P. (2000). *Pedagogy of the oppressed (30th Anniversary Edition).* Continuum International Publishing Group. (Original work published 1970.)

Fishman, M. (1978). Crime Waves as Ideology. *Social Problems*, *25*(5), 531–543.

   https://doi.org/10.2307/800102

Fitzpatrick, S., Paweson, H., Bramley, G., Wilcox, S. (2017). *The homelessness monitor:*

   England 2017.

   https://www.crisis.org.uk/media/236823/homelessness_monitor_england_2017.pdf

Forrest-Bank, S. S., Nicotera, N., Anthony, E. K., & Jenson, J. M. (2015). Finding their Way:

   Perceptions of risk, resilience, and positive youth development among adolescents

   and young adults from public housing neighborhoods. *Children and Youth Services*

   Review, *55*, 147–158. https://doi.org/10.1016/j.childyouth.2015.05.015

Francis-Devine, B. (2021). Youth Unemployment Statistics.

   https://commonslibrary.parliament.uk/research-briefings/sn05871/

*Frank, J. L., Kohler, K., Peal, A., & Bose, B. (2017). Effectiveness of a School-Based Yoga

   Program on Adolescent Mental Health and School Performance: Findings from a

   Randomized Controlled Trial. *Mindfulness*, *8*(3), 544–553.

   https://doi.org/10.1007/s12671-016-0628-3

*Frazier, S. L., Dinizulu, S. M., Rusch, D., Boustani, M. M., Mehta, T. G., & Reitz, K.

   (2015). Building Resilience After School for Early Adolescents in Urban Poverty:

   Open Trial of Leaders @ Play. *Administration and Policy in Mental Health and*

   Mental Health Services Research, *42*(6), 723–736. https://doi.org/10.1007/s10488-

   014-0608-7

Gabana, N. (2016). A Strengths-Based Cognitive Behavioral Approach to Treating

   Depression and Building Resilience in Collegiate Athletics: The Individuation of an

   Identical Twin. *Case Studies in Sport and Exercise Psychology*, *1*(1), 4–15.

   https://doi.org/10.1123/cssep.2016-0005

Garton, S., & Copland, F. (2010). 'I like this interview; I get cakes and cats!': the effect of prior relationships on interview talk. *Qualitative Research,* 10(5), 533–551. https://doi.org/10.1177/1468794110375231

Galea, S., & Vlahov, D. (2004). URBAN HEALTH: Evidence, Challenges, and Directions. *Annual Review of Public Health*, *26*(1), 341–365. https://doi.org/10.1146/annurev.publhealth.26.021304.144708

Ganeshkumar, P., & Gopalakrishnan, S. (2013). Systematic reviews and meta-analysis: Understanding the best evidence in primary healthcare. *Journal of Family Medicine and Primary Care*, *2*(1), 9. https://doi.org/10.4103/2249-4863.109934

Gass, M. A., & Stevens, C. A. (2007). Facilitating the adventure process. In D. Prouty, J. Panicucci & R. Collinson (Eds.), *Adventure education: Theory and applications* (pp. 101-124). Human Kinetics.

Geldhof, G. J., Larsen, T., Urke, H., Holsen, I., Lewis, H., & Tyler, C. P. (2019). Indicators of positive youth development can be maladaptive: The example case of caring. *Journal of Adolescence*, *71*, 1–9. https://doi.org/10.1016/j.adolescence.2018.11.008

Gestsdottir, S., & Lerner, R. M. (2008). Positive development in adolescence: The development and role of intentional self-regulation. *Human Development, 51*(3), 202–224. https://doi.org/10.1159/000135757

Gestsdottir, S., Urban, J. B., Bowers, E. P., Lerner, J. V., & Lerner, R. M. (2011). Intentional self-regulation, ecological assets, and thriving in adolescence: A developmental systems model. In R. M. Lerner, J. V. Lerner, E. P. Bowers, S. Lewin-Bizan, S. Gestsdottir, & J. B. Urban (Eds.), *Thriving in childhood and adolescence: The role of*

self-regulation processes. New Directions for Child and Adolescent Development (1st ed., pp. 61–76). Jossey-Bass. ISBN: 978-1-118-20468-9

Gillham, J., Adams-Deutsch, Z., Werner, J., Reivich, K., Coulter-Heindl, V., Linkins, M., and Contero, A. (2011). Character strengths predict subjective wellbeing during adolescence. J. Posit. Psychol. 6, 31–44. doi: 10.1080/17439760. 2010.536773

Golden, S., Spielhofer, T., Sims, D., Aiston, S., & O'Donnell, L. (2002). *Re-engaging the Hardest-to-Help Young People: the role of the Neighbourhood Support Fund* (No.366). https://dera.ioe.ac.uk/4641/1/RR366.pdf

Goldkuhl, G. (2012). Pragmatism vs interpretivism in qualitative information systems research. *European Journal of Information Systems*, *21*(2), 135–146. https://doi.org/10.1057/ejis.2011.54

Gonzalez, M., Kokozos, M., Byrd, C. M., & McKee, K. E. (2021). Critical positive youth development: A framework for centering critical consciousness. *Journal of Youth Development*, *15*(6), 24–43. https://doi.org/10.5195/JYD.2020.859

Gorczynski, P., Gibson, K., Clarke, N., Mensah, T., & Summers, R. (2020). Examining mental health literacy, help-seeking behaviours, distress, and wellbeing in UK coaches. *European Physical Education Review, 26*(3), 713–726. https://doi.org/10.1177/1356336X19887772

Gordon, S., & Gucciardi, D. F. (2011). A strengths-based approach to coaching mental toughness. *Journal of Sport Psychology in Action*, *2*(3), 143–155. https://doi.org/10.1080/21520704.2011.598222

Graber, R., Turner, R., & Madill, A. (2016). Best friends and better coping: Facilitating

    psychological resilience through boys' and girls' closest friendships. *British Journal*

    of Psychology, *107*(2), 338–358. https://doi.org/10.1111/bjop.12135

Graham, I. D., Logan, J., Harrison, M. B., Straus, S. E., Tetroe, J., Caswell, W., & Robinson,

    N. (2006). Lost in knowledge translation: time for a map? *The Journal of Continuing*

    Education in the Health Professions, *26*(1), 13–24. https://doi.org/10.1002/chp.47

Greenhalgh, J., & Manzano, A. (2021). Understanding 'context'in realist evaluation and

    synthesis. International Journal of Social Research Methodology, 1-13.

    https://doi.org/10.1080/13645579.2021.1918484

Greenspoon, P. J., & Saklofske, D. H. (2001). Toward an integration of subjective well-being

    and psychopathology. *Social Indicators Research*, *54*(1), 81–108.

    https://doi.org/10.1023/A:1007219227883

Grey, C. & Woodfine, L. (2018). Adverse Childhood Experiences (ACEs) and Housing

    Vulnerability – Report and Evaluation of ACE-informed Training for Housing. Public

    Health Wales, Wales.

    http://www.wales.nhs.uk/sitesplus/documents/888/5%20ACE%20Informed%20Traini

    ng%20for%20Housing.pdf

Grolnick, W. S., Farkas, M. S., Sohmer, R., Michaels, S., & Valsiner, J. (2007). Facilitating

    motivation in young adolescents: Effects of an after-school program. *Journal of*

    Applied Developmental Psychology, *28*(4), 332–344.

    https://doi.org/10.1016/j.appdev.2007.04.004

Gross, M., Moore, Z. E., Gardner, F. L., Wolanin, A. T., Pess, R., & Marks, D. R. (2018). An

    empirical examination comparing the Mindfulness-Acceptance-Commitment

    approach and Psychological Skills Training for the mental health and sport

performance of female student athletes. *International Journal of Sport and Exercise Psychology*, *16*(4), 431–451. https://doi.org/10.1080/1612197X.2016.1250802

Guba, E. G., & Lincoln, Y. S. (1994). *Competing paradigms in qualitative research.* In N. K. Denzin & Y. S. Lincoln (Eds.), *Handbook of qualitative research* (p. 105–117). Sage Publications, Inc.

Hagell, A., Shah, R., Viner, R., Hargreaves, D., Varnes, L., & Heys, M. (2018). The social determinants of young people's health | Identifying the key issues and assessing how young people are doing the 2010s. The Health Foundation, 1(June), 8–9. Retrieved from https://www.health.org.uk/collection/FutureHealthInquiry

Hales, A. H., & Williams, K. D. (2018). Marginalized Individuals and Extremism: The Role of Ostracism in Openness to Extreme Groups. *Journal of Social Issues*, *74*(1), 75–92. https://doi.org/10.1111/josi.12257

Halfon, N., Forrest, C., Lerner, R., Faustman, E., editors. *The Handbook of Life Course Health Development.* New York, NY: Springer.

Hall, W. D., Patton, G., Stockings, E., Weier, M., Lynskey, M., Morley, K. I., & Degenhardt, L. (2016, March 1). Why young people's substance use matters for global health. *The Lancet Psychiatry*. Elsevier Ltd. https://doi.org/10.1016/S2215-0366(16)00013-4

Hallal, P. C., Victora, C. G., Azevedo, M. R., & Wells, J. C. (2006). Adolescent physical activity and health. *Sports medicine*, *36*(12), 1019-1030. https://doi.org/10.2165/00007256-200636120-00003

Hambrick, E. P., Brawner, T. W., Perry, B. D., Brandt, K., Hofmeister, C., & Collins, J. O. (2019). Beyond the ACE score: Examining relationships between timing of developmental adversity, relational health and developmental outcomes in children.

Archives of Psychiatric Nursing, 33(3), 238–247.

https://doi.org/10.1016/j.apnu.2018.11.001

Hamilton, S., Hamilton, M., & Pittman, K. (2004). Principles for youth development. In S. F. Hamilton, & M. A. Hamilton *The youth development handbook: Coming of age in american communities* (pp. 3-22). SAGE Publications, Inc.,

https://www.doi.org/10.4135/9781452232560.n1

Hammarberg, K., Kirkman, M., & De Lacey, S. (2016). Qualitative research methods: When to use them and how to judge them. *Human Reproduction*. Oxford University Press.

https://doi.org/10.1093/humrep/dev334

Hammond, W. (2010). *Principles of strength-based practice*. *Resiliency Initiatives* (pp. 1–7). Retrieved from http://www.ayscbc.org/Principles%20of%20Strength-2.pdf

Hanrahan, S.J. (2005). Using psychological skills training from sport psychology to enhance the life satisfaction of adolescent Mexican orphans. *Athletic Insight 7 (3),* 7-13

Hanrahan, Stephanie J. (2012). *Developing adolescents' self-worth and life satisfaction through physically active games: Interventions with orphans and teenagers living in poverty.* Sport for development, peace and social justice. Edited by Robert Schinke and Stephanie Hanrahan. Morgantown, WV, United States: Fitness Information Technology

*Hanrahan, S. J., & Ramm, M.D. (2015). Improving life satisfaction, self-concept, and happiness of former gang members using games and psychological skills training. *Journal of Sport for Development, 10(3)*.

Hanson, B. (2008). Wither qualitative/quantitative?: Grounds for methodological convergence. *Quality and Quantity*, *42*(1), 97–111. https://doi.org/10.1007/s11135-006-9041-7

Harré, R. (1997). Critical Realism: An Introduction to Roy Bhaskar's Philosophy. *International Studies in Philosophy*, *29*(2), 120–122. https://doi.org/10.5840/intstudphil199729248

Harper, N. J., Mott, A. J., & Obee, P. (2019). Client perspectives on wilderness therapy as a component of adolescent residential treatment for problematic substance use and mental health issues. *Children and Youth Services Review, 105*(May), 104450. https://doi.org/10.1016/j.childyouth.2019.104450

Harden, T., Kenemore, T., Mann, K., Edwards, M., List, C., & Martinson, K. J. (2015). The Truth N' Trauma Project: Addressing Community Violence Through a Youth-Led, Trauma-Informed and Restorative Framework. *Child and Adolescent Social Work Journal*, *32*(1), 65–79. https://doi.org/10.1007/s10560-014-0366-0

Harwood, C. (2008). Developmental consulting in a professional football academy: The 5Cs coaching efficacy program. *Sport Psychologist*, *22*(1), 109–133. https://doi.org/10.1123/tsp.22.1.109

Hastie, P., & Hay, P. (2012). Qualitative approaches. In K. Armour & D. Macdonald (Eds.), *Research methods in physical education and youth sport* (pp. 79–105). Routledge.

Hattie, J., Marsh, H. W., Neill, J. T., & Richards, G. E. (1997). Adventure Education and Outward Bound: Out-of-Class Experiences That Make a Lasting Difference. *Review of Educational Research*, *67*(1), 43. https://doi.org/10.2307/1170619

Heck, K. E., & Subramaniam, A. (2009). *Youth development frameworks* (University of California 4-H Center for Youth Development Monograph). Davis: University of California.

Heckman, J. (1990). Varieties of Selection Bias. *The American Economic Review, 80*(2), 313-318. www.jstor.org/stable/2006591

Hein, V., Koka, A., & Hagger, M. S. (2015). Relationships between perceived teachers' controlling behaviour, psychological need thwarting, anger and bullying behaviour in high-school students. *Journal of Adolescence*, *42*, 103–114. https://doi.org/10.1016/j.adolescence.2015.04.003

Hellison D. (2002) *Teaching Responsibility through Physical Activity. (2nd ed)* Human Kinetics. Champaign, IL.

Herens, M., Wagemakers, A., Vaandrager, L., van Ophem, J., & Koelen, M. (2017). Contexts, Mechanisms, and Outcomes That Matter in Dutch Community-Based Physical Activity Programs Targeting Socially Vulnerable Groups. *Evaluation and the Health Professions*, *40*(3), 294–331. https://doi.org/10.1177/0163278716652940

Hermens, N., Super, S., Verkooijen, K. T., & Koelen, M. A. (2017). A Systematic Review of Life Skill Development Through Sports Programs Serving Socially Vulnerable Youth. *Research Quarterly for Exercise and Sport*, *88*(4), 408–424. https://doi.org/10.1080/02701367.2017.1355527

Herzog, J. I., & Schmahl, C. (2018). Adverse childhood experiences and the consequences on neurobiological, psychosocial, and somatic conditions across the lifespan. *Frontiers in Psychiatry*, *9*(SEP), 1–8. https://doi.org/10.3389/fpsyt.2018.00420

Hoare, E., Milton, K., Foster, C., & Allender, S. (2016). The associations between sedentary

behaviour and mental health among adolescents: A systematic review. International

Journal of Behavioral Nutrition and Physical Activity, 13(1).

https://doi.org/10.1186/s12966-016-0432-4

Hodgson, K. J., Shelton, K. H., Van Den Bree, M. B. M., & Los, F. J. (2013).

Psychopathology in young people experiencing homelessness: A systematic review.

American Journal of Public Health, 103(6).

https://doi.org/10.2105/AJPH.2013.301318

Hofstede, G. (1984). The Cultural Relativity of the Quality of Life Concept. *Academy of*

Management Review, *9*(3), 389–398. https://doi.org/10.5465/amr.1984.4279653

Holland, M. J. G., Cooley, S. J., & Cumming, J. (2018). Understanding and assessing young

athletes' psychological needs. In Knight, C. J., Harwood, C. G., Gould, D.,

(Eds.), *Sport Psychology for Young Athletes* (pp. 43–54). Routledge.

https://doi.org/10.4324/9781315545202-5

Holland, M. J. G., Woodcock, C., Cumming, J., & Duda, J. L. (2010). Mental qualities and

employed mental techniques of young elite team sport athletes. *Journal of Clinical*

Sport Psychology, *4*(1), 19–38. https://doi.org/10.1123/jcsp.4.1.19

Holsen, I., Geldhof, J., Larsen, T., & Aardal, E. (2017). The five Cs of positive youth

development in Norway: Assessment and associations with positive and negative

outcomes. *International Journal of Behavioral Development,* 41(5), 559–569.

https://doi.org/10.1177/0165025416645668

Holt, N. L., Kingsley, B. C., Tink, L. N., & Scherer, J. (2011). Benefits and challenges

associated with sport participation by children and parents from low-income families.

Psychology of Sport and Exercise, *12*(5), 490–499.

https://doi.org/10.1016/j.psychsport.2011.05.007

Holt, N. L., Neely, K. C., Slater, L. G., Camiré, M., Côté, J., Fraser-Thomas, J., …

Tamminen, K. A. (2017). A grounded theory of positive youth development through

sport based on results from a qualitative meta-study. *International Review of Sport*

and Exercise Psychology, 10(1), 1–49.

https://doi.org/10.1080/1750984X.2016.1180704

Homeless Link Research Team (2018). *Young & Homeless 2018.*

https://doi.org/10.3171/2016.4.JNS152896

Hopkins. T. & Rippon, S. (2015). *Head, hands and heart: asset-based approaches in health*

care. A review of the conceptual evidence and case studies of asset-based approaches.

Retrieved from, http://www.colabdudley.net/wp-

content/uploads/2015/11/headhandsandheartassetbasedapproachesinhealthcare.pdf

Houghton, C., Casey, D., Shaw, D., & Murphy, K. (2013). Rigour in qualitative case-study

research. *Nurse Researcher*, *20*(4), 12–17.

https://doi.org/10.7748/nr2013.03.20.4.12.e326

Howe, K. R. (1988). Against the Quantitative-Qualitative Incompatibility Thesis or Dogmas

Die Hard. *Educational Researcher*, *17*(8), 10–16.

https://doi.org/10.3102/0013189X017008010

Hull, D. M., Saxon, T. F., Fagan, M. A., Williams, L. O., & Verdisco, A. E. (2018). Positive

youth development: An experimental trial with unattached adolescents. *Journal of*

Adolescence, *67*, 85–97. https://doi.org/10.1016/j.adolescence.2018.06.006

Huta, V., & Hawley, L. (2010). Psychological strengths and cognitive vulnerabilities: Are

    they two ends of the same continuum or do they have independent relationships with

    well-being and ill-being? *Journal of Happiness Studies*, *11*(1), 71–93.

    https://doi.org/10.1007/s10902-008-9123-4

Hyde, Y., R. (2012) 'We Do All Want the Finer Things in Life': Urban Street Fiction, Bad

    Girls, Black Femininity, and Maslow's Hierarchy of Needs. Retrieved from,

    https://ojs.meccsa.org.uk/index.php/netknow/article/view/246

*Inoue, Y., Wegner, C. E., Jordan, J. S., & Funk, D. C. (2015). Relationships Between Self-

    Determined Motivation and Developmental Outcomes in Sport-Based Positive Youth

    Development. *Journal of Applied Sport Psychology*, *27*(4), 371–383.

    https://doi.org/10.1080/10413200.2015.1010662

Israel, B. A., Coombe, C. M., Cheezum, R. R., Schulz, A. J., McGranaghan, R. J.,

    Lichtenstein, R., Reyes, A. G., Clement, J., & Burris, A. (2010). Community-based

    participatory research: a capacity-building approach for policy advocacy aimed at

    eliminating health disparities. *American journal of public health*, *100*(11), 2094–

    2102. https://doi.org/10.2105/AJPH.2009.170506

Israel, B. A., Schulz, A. J., Parker, E. A., & Becker, A. B. (1998). Review of community-

    based research: assessing partnership approaches to improve public health. *Annual*

    review of public health, *19*, 173–202.

    https://doi.org/10.1146/annurev.publhealth.19.1.173

Jabbour, L., & Siu, L. (2019). Economic evaluation of Psychologically Informed

    Environments: Cost-benefit analysis of BOOST and MST4Life™ programmes at St

    Basils. Business School, University of Birmingham, Birmingham, UK.

Jackson, S. F., & Kolla, G. (2012). A New Realistic Evaluation Analysis Method: Linked
Coding of Context, Mechanism, and Outcome Relationships. American Journal of
Evaluation, 33(3), 339–349. https://doi.org/10.1177/1098214012440030

Jager, J., Putnick, D. L., & Bornstein, M. H. (2017). II. MORE THAN JUST
CONVENIENT: THE SCIENTIFIC MERITS OF HOMOGENEOUS
CONVENIENCE SAMPLES. *Monographs of the Society for Research in Child
Development*, *82*(2), 13–30. https://doi.org/10.1111/mono.12296

Jagosh, J., Bush, P. L., Salsberg, J., Macaulay, A. C., Greenhalgh, T., Wong, G., … Pluye, P.
(2015). A realist evaluation of community-based participatory research: Partnership
synergy, trust building and related ripple effects. BMC Public Health, 15(1), 1–11.
https://doi.org/10.1186/s12889-015-1949-1

Jegannathan, B., Dahlblom, K., & Kullgren, G. (2014). Outcome of a school-based
intervention to promote life-skills among young people in Cambodia. *Asian Journal
of Psychiatry*, *9*, 78–84. https://doi.org/10.1016/j.ajp.2014.01.011

Johnson, P., & Duberley, J. (2011). Pragmatism and Critical Realism - Transcending
Descartes' Either/Or? In *Understanding Management Research* (pp. 149–176). SAGE
Publications Ltd. https://doi.org/10.4135/9780857020185.n7

Johnson, R., & Haigh, R. (2010). Social psychiatry and social policy for the 21st century -
New concepts for new needs: The "psychologically-informed environment." *Mental
Health and Social Inclusion*, *14*(4), 30–35. https://doi.org/10.5042/mhsi.2010.0620

Johnson, R. B., & Onwuegbuzie, A. J. (2004). Mixed methods research: A research paradigm
whose time has come. *Educational Researcher,33*(7), 14-26
https://doi.org/10.3102/0013189X033007014

Jones, I., Brown, L., & Holloway, I. (2014). *Qualitative Research in Sport and Physical Activity*. *Qualitative Research in Sport and Physical Activity*. SAGE Publications Ltd. https://doi.org/10.4135/9781473914995

Jones, G. J., Edwards, M. B., Bocarro, J. N., Bunds, K. S., Smith, W., Jones, G. J., … Smith, J. W. (2016). An integrative review of sport-based youth development literature. *Sport in Society*, *20*(1), 161-179 https://doi.org/10.1080/17430437.2015.1124569

Jull, J., Giles, A., & Graham, I. D. (2017). Community-based participatory research and integrated knowledge translation: Advancing the co-creation of knowledge. *Implementation Science*, *12*(1). https://doi.org/10.1186/s13012-017-0696-3

Kalmakis, K. A., & Chandler, G. E. (2015). Health consequences of adverse childhood experiences: A systematic review. *Journal of the American Association of Nurse Practitioners*, *27*(8), 457–465. https://doi.org/10.1002/2327-6924.12215

Katrak, P., Bialocerkowski, A. E., Massy-Westropp, N., Kumar, V. S., & Grimmer, K. A. (2004). A systematic review of the content of critical appraisal tools. *BMC Medical Research Methodology*, 4(22), 1–11. https://doi.org/10.1186/1471-2288-4-22.

Kaushik, V., & Walsh, C. A. (2019). Pragmatism as a research paradigm and its implications for Social Work research. *Social Sciences*, *8*(9). https://doi.org/10.3390/socsci8090255

Kelly, B. L. (2019). Positive Youth Development: Developing, Implementing, and Sustaining Music-Based Services for Emerging Adults Experiencing Homelessness. *Emerging Adulthood*, *7*(5), 331–341. https://doi.org/10.1177/2167696818777347

Kelly, M. (2019). Realist Research, Guidelines and the Politics of Evidence. In *Doing Realist Research* (pp. 185–202). SAGE Publications Ltd. https://doi.org/10.4135/9781526451729.n12

Kidd, S. A. (2007). Youth homelessness and social stigma. *Journal of Youth and Adolescence*, *36*(3), 291–299. https://doi.org/10.1007/s10964-006-9100-3

Kins, E., Soenens, B., & Beyers, W. (2013). Separation anxiety in families with emerging adults. *Journal of Family Psychology,* 27(3), 495–505. https://doi.org/10.1037/a0032869

Kipp, L. E. (2018) Developmental considerations for working with young athletes. In Knight, C. J., Harwood, C. G., Gould, D., (Eds.), *Sport Psychology for Young Athletes* (pp. 43–54). Routledge.

Kmet, L. M., Lee, R. C., & Cook, L. S. (2004). *Standard quality assessment criteria for evaluating primary research papers from a variety of fields.* Canada: HTA Initiative, University of Galgary.

Klodnick, V. V., Malina, C., Fagan, M. A., Johnson, R. P., Brenits, A., Zeidner, E., & Viruet, J. (2021). Meeting the Developmental Needs of Young Adults Diagnosed with Serious Mental Health Challenges: the Emerge Model. *The journal of behavioral health services & research*, *48*(1), 77–92. https://doi.org/10.1007/s11414-020-09699-0

Koivusilta, L. K., West, P., Vesa Markus Antero, S., Nummi, T., & Rimpelä, A. H. (2013). From childhood socio-economic position to adult educational level – do health behaviours in adolescence matter? A longitudinal study. *BMC Public Health*, *13*(1). https://doi.org/10.1186/1471-2458-13-711

Kolb, D. (1984). *Experiential Learning: Experience as the Source of Learning and Development*. Englewood Cliffs: Prentice Hall

ISBN: 0132952610

Kolb, D. A., Boyatzis, R. E., & Mainemelis, C. (2014). Experiential learning theory: Previous research and new directions. In *Perspectives on Thinking, Learning, and Cognitive Styles* (pp. 227–247). Taylor and Francis. https://doi.org/10.4324/9781410605986-9

Krabbenborg, M. A., Boersma, S. N., Beijersbergen, M. D., Goscha, R. J., & Wolf, J. R. (2015). Fidelity of a strengths-based intervention used by dutch shelters for homeless young adults. *Psychiatric services (Washington, D.C.)*, *66*(5), 470–476. https://doi.org/10.1176/appi.ps.201300425

Krabbenborg, M. A. M., Boersma, S. N., van der Veld, W. M., Vollebergh, W. A. M., & Wolf, J. R. L. M. (2017a). Self-determination in relation to quality of life in homeless young adults: Direct and indirect effects through psychological distress and social support. *Journal of Positive Psychology, 12*(2), 130–140. https://doi.org/10.1080/17439760.2016.1163404

Krabbenborg, M. A. M., Boersma, S. N., van der Veld, W. M., van Hulst, B., Vollebergh, W. A. M., & Wolf, J. R. L. M. (2017). A cluster randomized controlled trial testing the effectiveness of Houvast: A Strengths-based intervention for homeless young adults. *Research on Social Work Practice, 27*(6), 639–652. https://doi.org/10.1177/1049731515622263

Krabbenborg, M. A. M., Boersma, S. N., & Wolf, J. R. L. M. (2013). A strengths based method for homeless youth: Effectiveness and fidelity of Houvast. *BMC Public Health*, 13, 359–369. https://doi:10.1186/1471-2458-13-359

Kramer-Roy, D. (2015). Using participatory and creative methods to facilitate emancipatory research with people facing multiple disadvantage: a role for health and care professionals. *Disability and Society*, *30*(8), 1207–1224. https://doi.org/10.1080/09687599.2015.1090955

Lian, H. (2019). Positionality and Power: Reflexivity in Negotiating the Relationship Between Land-Lost Farmers and the Local Government in China. *International Journal of Qualitative Methods*, *18*. https://doi.org/10.1177/1609406919864508

Lane, J. A., & Fink, R. S. (2015). Attachment, Social Support Satisfaction, and Well-Being During Life Transition in Emerging Adulthood. *The Counseling Psychologist*, *43*(7), 1034–1058. https://doi.org/10.1177/0011000015592184

Langdon, J., Johnson, C., & Melton, B. (2017). Factors contributing to the uptake and maintenance of regular exercise behaviour in emerging adults. *Health Education Journal*, *76*(2), 182–193. https://doi.org/10.1177/0017896916654934

Larson, R. W. (2000). Toward a psychology of positive youth development. *American Psychologist*, *55*(1), 170–183. https://doi.org/10.1037/0003-066X.55.1.170

Larson, R. W., & Rusk, N. (2011). Chapter 5 - Intrinsic Motivation and Positive Development. In Lerner, R. M., Lerner, J. V., Benson, J. B., (Eds.). *Advances in Child Development & Behavior* (Vol. 41, pp. 89–130). Academic Press Inc. https://doi.org/10.1016/B978-0-12-386492-5.00005-1

Latkin, C. A., Mai, N. V., Ha, T. V., Sripaipan, T., Zelaya, C., Le Minh, N., Morales, G., & Go, V. F. (2016). Social Desirability Response Bias and Other Factors That May Influence Self-Reports of Substance Use and HIV Risk Behaviors: A Qualitative Study of Drug Users in Vietnam. *AIDS education and prevention: official publication*

of the International Society for AIDS Education, *28*(5), 417–425.

https://doi.org/10.1521/aeap.2016.28.5.417

Lau, P. W. C., Fox, K. R., & Cheung, M. W. L. (2004). Psychosocial and socio-

environmental correlates of sport identity and sport participation in secondary school-

age children. *European Journal of Sport Science*, *4*(3), 1–21.

https://doi.org/10.1080/17461390400074301

Leberman, S. I., & Martin, A. J. (2004). Enhancing transfer of learning through post-course

reflection. *Journal of Adventure Education & Outdoor Learning*, *4*(2), 173–184.

https://doi.org/10.1080/14729670485200521

Lefcourt, H. M. (1991). *Locus of control.* In J. P. Robinson, P. R. Shaver, & L. S.

Wrightsman (Eds.), *Measures of social psychological attitudes, Vol. 1. Measures of*

personality and social psychological attitudes (p. 413–499). Academic

Press. https://doi.org/10.1016/B978-0-12-590241-0.50013-7

Lee, H., Harris, K. M., & Lee, J. (2013). Multiple Levels of Social Disadvantage and Links to

Obesity in Adolescence and Young Adulthood. *Journal of School Health*, *83*(3), 139–

149. https://doi.org/10.1111/josh.12009

Lekies, K. S., Yost, G., & Rode, J. (2015). Urban youths experiences of nature: Implications

for outdoor adventure recreation. *Journal of Outdoor Recreation and Tourism*, *9*, 1–

10. https://doi.org/10.1016/j.jort.2015.03.002

Leme, A. C. B., Lubans, D. R., Guerra, P. H., Dewar, D., Toassa, E. C., & Philippi, S. T.

(2016). Preventing obesity among Brazilian adolescent girls: Six-month outcomes of

the Healthy Habits, Healthy Girls-Brazil school-based randomized controlled trial.

Preventive Medicine, *86*, 77–83. https://doi.org/10.1016/j.ypmed.2016.01.020

Lerner, R. M., & Lerner, J. V. (2013). *The positive development of youth: Comprehensive findings from the 4-H study of positive youth development.* Washington, DC: National 4-H Council.

Lerner, R. M., Lerner, J. V., Almerigi, J. B., Theokas, C., Phelps, E., Gestsdottir, S., … Von Eye, A. (2005). Positive youth development, participation in community youth development programs, and community contributions of fifth-grade adolescents: Findings from the first wave of the 4-H study of positive youth development. *Journal of Early Adolescence*, 25(1), 17–71. https://doi.org/10.1177/0272431604272461

Lerner, R. M., Lerner, J. V., Bowers, E. P., & Geldhof, G. J. (2015). Positive youth development and relational-developmental-systems. In W. F. Overton, P. C. M. Molenaar, & R. M. Lerner (Eds.), *Handbook of child psychology and developmental science: Theory and method* (pp. 607–651). John Wiley & Sons, Inc.. https://doi.org/10.1002/9781118963418.childpsy116

Lerner, R. M., Lerner, J. V., Lewin-Bizan, S., Bowers, E. P., Boyd, M. J., Mueller, M. K., … Napolitano, C. M. (2011). Positive Youth Development: Processes, Programs, and Problematics. Journal of Youth Development, 6(3), 38–62. https://doi.org/10.5195/JYD.2011.174

Lerner, R. M., & Overton, W. F. (2008). Exemplifying the integrations of the relational developmental system: Synthesizing theory, research, and application to promote positive development and social justice. *Journal of Adolescent Research*, *23*(3), 245–255. https://doi.org/10.1177/0743558408314385

Lerner, R. M., Wang, J., Chase, P. A., Gutierrez, A. S., Harris, E. M., Rubin, R. O., & Yalin, C. (2014). Using relational developmental systems theory to link program goals, activities, and outcomes: the sample case of the 4-H Study of Positive Youth

Development. *New Directions for Youth Development*, *2014*(144), 17–30.

https://doi.org/10.1002/yd.20110

Lewis, L. H., & Williams, C. J. (1994). Experiential learning: Past and present. *New Directions for Adult and Continuing Education*, *1994*(62), 5–16.

https://doi.org/10.1002/ace.36719946203

Liddle, S. K., Deane, F. P., Batterham, M. & Vella, S. A. (2021) A Brief Sports-Based Mental Health Literacy Program for Male Adolescents: A Cluster-Randomized Controlled Trial. *Journal of Applied Sport Psychology, (33)*1, 20-44,

https://doi.org/10.1080/10413200.2019.1653404

Liu, F., Bowers, E. P., Gai, X., & Ren, W. (2020). Enhancing the intentional self-regulation skills of Chinese adolescents living in orphanages: A school-based intervention. *Asian Journal of Social Psychology*, *23*(3), 339–348. https://doi.org/10.1111/ajsp.12407

Long, D. M. (2013). Pragmatism, realism, and psychology: Understanding theory selection criteria. *Journal of Contextual Behavioral Science*, *2*(3–4), 61–67.

https://doi.org/10.1016/j.jcbs.2013.09.003

Lubans, D. R., Plotnikoff, R. C., & Lubans, N. J. (2012). Review: A systematic review of the impact of physical activity programmes on social and emotional well-being in at-risk youth. *Child and Adolescent Mental Health*, *17*(1), 2–13.

https://doi.org/10.1111/j.1475-3588.2011.00623.x

Lubans, D. R., Morgan, P. J., Aguiar, E. J., & Callister, R. (2011). Randomized controlled trial of the Physical Activity Leaders (PALs) program for adolescent boys from disadvantaged secondary schools. *Preventive Medicine*, *52*(3–4), 239–246.

https://doi.org/10.1016/j.ypmed.2011.01.009

Lubans, D., Richards, J., Hillman, C., Faulkner, G., Beauchamp, M., Nilsson, M., … Biddle, S. (2016). Physical Activity for Cognitive and Mental Health in Youth: A Systematic Review of Mechanisms. *Pediatrics*, *138*(3), e20161642–e20161642. https://doi.org/10.1542/peds.2016-1642

Luckner, J. L., & Nadler, R. S. (1997). *Processing the experience: Strategies to enhance and generalize learning* (2nd ed.). Kendall/Hunt Publishing

Ludlam, K. E., Butt, J., Bawden, M., Lindsay, P., & Maynard, I. W. (2016). A Strengths-Based Consultancy Approach in Elite Sport: Exploring Super-Strengths. *Journal of Applied Sport Psychology*, *28*(2), 216–233. https://doi.org/10.1080/10413200.2015.1105881

Luginbuhl, P. J., McWhirter, E. H., & McWhirter, B. T. (2016). Sociopolitical development, autonomous motivation, and education outcomes: Implications for low-income Latina/o adolescents. Journal of Latina/o Psychology, 4(1), 43–59. https://doi.org/10.1037/lat0000041

Lyche, C. (2010). Taking on the Completion Challenge - A Literature Review on Policies to Prevent Dropout and Early School Leaving. *OECD Education Working Papers*, (53), 64. Retrieved from http://ideas.repec.org/p/oec/eduaab/53-en.html

Mackenzie, N., & Knipe, S. (2006). Research dilemmas: Paradigms, methods and methodology. *Issues in Educational Research*, *16*(2). https://www.iier.org.au/iier16/mackenzie.html

Mackenzie, S. H., Son, J. S., & Hollenhorst, S. (2014). Unifying psychology and experiential education: Toward an integrated understanding of why it works. Journal of Experiential Education, 37(1), 75–88. https://doi.org/10.1177/1053825913518894

Mageau, G. A., & Vallerand, R. J. (2003, November). The coach-athlete relationship: A motivational model. *Journal of Sports Sciences*. https://doi.org/10.1080/0264041031000140374

*Mala, J., Corral, M. D., McGarry, J. E., Macauley, C. D. T., Arinze, N. A., & Ebron, K. (2020). Positive Impacts of a Sport Intervention on Male Students of Color and School Climate. *Research Quarterly for Exercise and Sport*, *00*(00), 1–17. https://doi.org/10.1080/02701367.2020.1789039

Malden, S., Jepson, R., Laird, Y., & McAteer, J. (2019). A theory based evaluation of an intervention to promote positive health behaviors and reduce social isolation in people experiencing homelessness. *Journal of Social Distress and the Homeless*, *28*(2), 158–168. https://doi.org/10.1080/10530789.2019.1623365

Manwell, L. A., Barbic, S. P., Roberts, K., Durisko, Z., Lee, C., Ware, E., & McKenzie, K. (2015). What is mental health? Evidence towards a new definition from a mixed methods multidisciplinary international survey. *BMJ Open*, *5*(6), 1–12. https://doi.org/10.1136/bmjopen-2014-007079

Markland, D., Ryan, R. M., Tobin, V. J., & Rollnick, S. (2005, September). Motivational interviewing and self-determination theory. *Journal of Social and Clinical Psychology*. https://doi.org/10.1521/jscp.2005.24.6.811

Markwei, E., & Rasmussen, E. (2015). Everyday Life Information-Seeking Behavior of Marginalized Youth: A Qualitative Study of Urban Homeless Youth in Ghana. *International Information and Library Review*, *47*(1–2), 11–29. https://doi.org/10.1080/10572317.2015.1039425

Martinent, G., Ledos, S., Ferrand, C., Campo, M., & Nicolas, M. (2015). Athletes' regulation of emotions experienced during competition: A naturalistic video-assisted study.

Sport, Exercise, and Performance Psychology, 4(3), 188–205.

https://doi.org/10.1037/spy0000037

Martin-Ginis, K. A., & Bray, S. R. (2010). Application of the limited strength model of self-regulation to understanding exercise effort, planning and adherence. *Psychology and Health*, *25*(10), 1147–1160. https://doi.org/10.1080/08870440903111696

Mawn, L., Oliver, E. J., Akhter, N., Bambra, C. L., Torgerson, C., Bridle, C., & Stain, H. J. (2017). Are we failing young people not in employment, education or training (NEETs)? A systematic review and meta-analysis of re-engagement interventions. *Systematic Reviews*, *6*(1), 1–17. https://doi.org/10.1186/s13643-016-0394-2

May, B. (2018).

https://www.ourcommons.ca/Content/Committee/421/HUMA/Reports/RP10078738/humarp12/humarp12-e.pdf

McClelland, M. M., Acock, A. C., Piccinin, A., Rhea, S. A., & Stallings, M. C. (2013). Relations between preschool attention span-persistence and age 25 educational outcomes. *Early Childhood Research Quarterly*, *28*(2), 314–324. https://doi.org/10.1016/j.ecresq.2012.07.008

McClelland, M., Geldhof, J., Morrison, F., Gestsdóttir, S., Cameron, C., Bowers, E., … Grammer, J. (2017). Self-regulation. In *Handbook of Life Course Health Development* (pp. 275–298). Springer International Publishing. https://doi.org/10.1007/978-3-319-47143-3_12

**McDavid, L., & McDonough, M. H. (2020). Observed staff engagement predicts postive relationships and well-being in a physical activity-based program for low-income youth. *Psychology of Sport and Exercise*, *49*. https://doi.org/10.1016/j.psychsport.2020.101705

**McDavid, L., McDonough, M. H., Wong, J. B., Snyder, F. J., Ruiz, Y., & Blankenship, B. B. (2019). Associations between participation in a Physical Activity-Based Positive Youth Development Program and Academic Outcomes. *Journal of Adolescence*, *77*, 147–151. https://doi.org/10.1016/j.adolescence.2019.10.012

McDonough, M. H., Ullrich-French, S., Anderson-Butcher, D., Amorose, A. J., & Riley, A. (2013). Social Responsibility among Low-Income Youth in Physical Activity-Based Positive Youth Development Programs: Scale Development and Associations with Social Relationships. *Journal of Applied Sport Psychology*, *25*(4), 431–447. https://doi.org/10.1080/10413200.2012.751563

McEvoy, E., MacPhail, A., & Enright, E. (2016). Physical activity experiences of young people in an area of disadvantage: 'there's nothing there fora big kids, like us.' *Sport, Education and Society*, *21*(8), 1161–1175. https://doi.org/10.1080/13573322.2014.994176

McEvoy, P., & Richards, D. (2003). Critical realism: A way forward for evaluation research in nursing? *Journal of Advanced Nursing*, *43*(4), 411–420. https://doi.org/10.1046/j.1365-2648.2003.02730.x

McMillen, J. C., Morris, L., & Sherraden, M. (2004). Ending social work's grudge match: Problems versus strengths. *Families in Society*. Families International Inc. https://doi.org/10.1606/1044-3894.1492

*McMahon, M. G., & Hanrahan, S. J. (2020). Life Matters: Exploring the Influence of Games and Mental Skills on Relatedness and Social Anxiety Levels in Disengaged Adolescent Students. *Journal of Applied Sport Psychology*, *32*(2), 205–219. https://doi.org/10.1080/10413200.2018.1557764

Medlow, S., Klineberg, E., & Steinbeck, K. (2014). The health diagnoses of homeless

    adolescents: A systematic review of the literature. Journal of Adolescence, 37(5),

    531–542. https://doi.org/10.1016/j.adolescence.2014.04.003

Mendoza, P., Horton, D., & Mendez, J. P. (2012). Retention among community college

    student-athletes. *Community College Journal of Research and Practice*, *36*(3), 201–

    219. https://doi.org/10.1080/10668921003677183

Mental Health Foundation Scotland (2020). *Impacts of lockdown on the mental health and*

    wellbeing of children and young people. mentalhealth.org.uk/publications/impacts-

    lockdown-mental-health-children-and-young-people

Mercier, J., Powell, C., Langdon-Pole, G., Finau, D., Hicks, K., Bourchier, L., & Hampton, J.

    (2019). The five Cs of positive youth development in an Aotearoa/New Zealand

    program context. *Journal of Youth Development,* 14(4), 36–58.

    https://doi.org/10.5195/JYD.2019.774

Mersky, J. P., & Janczewski, C. E. (2018). Racial and ethnic differences in the prevalence of

    adverse childhood experiences: Findings from a low-income sample of U.S.

    women. *Child Abuse and Neglect*, *76*, 480–487.

    https://doi.org/10.1016/j.chiabu.2017.12.012

Mertens, D. M. (2007). Transformative Paradigm: Mixed Methods and Social

    Justice. *Journal of Mixed Methods Research*, *1*(3), 212–225.

    https://doi.org/10.1177/1558689807302811

Mertens, D. M. (2010). Transformative Mixed Methods Research. Qualitative Inquiry, 16(6),

    469–474. https://doi.org/10.1177/1077800410364612

Messel, M. (2015). *Profiles in resilience: Narratives about homosexuality and access to social capital in the social ecological systems of black sexual minority men during secondary school* (Doctoral dissertation, Johns Hopkins University).

Ministry of Housing Communities and Local Government. (2018). Departmental overview for Ministry of Housing Communities and Local Government. National Audit Office, London, UK. https://www.nao.org.uk/wp-content/uploads/2018/10/Departmental-Overview-Ministry-of-Housing-Communities-and-Local-Government-2017-18.pdf

Mmari, K., & Astone, N. (2014). Urban adolescent sexual and reproductive health in low-income and middle-income countries. *Archives of Disease in Childhood*, *99*(8), 778–782. https://doi.org/10.1136/archdischild-2013-304072

Moffitt, T. E., Arseneault, L., Belsky, D., Dickson, N., Hancox, R. J., Harrington, H. L., … Caspi, A. (2011). A gradient of childhood self-control predicts health, wealth, and public safety. *Proceedings of the National Academy of Sciences of the United States of America*, *108*(7), 2693–2698. https://doi.org/10.1073/pnas.1010076108

Moher, D., Liberati, A., Tetzlaff, J., & Altman, D. G. (2009). Preferred reporting items for systematic reviews and meta-analyses: The PRISMA Statement. *Journal of Clinical* Epidemiology, 62, 1006–1012. https://doi:10.1016/j.jclinepi.2009.06.005

Moola, S., Munn, Z., Sears, K., Sfetcu, R., Currie, M., Lisy, K., … Mu, P. (2015). Conducting systematic reviews of association (etiology): The Joanna Briggs Institute's approach. *International Journal of Evidence-Based Healthcare*, *13*(3), 163–169. https://doi.org/10.1097/XEB.0000000000000064

Morgan, D. L. (2014). Pragmatism as a Paradigm for Social Research. *Qualitative Inquiry*, *20*(8), 1045–1053. https://doi.org/10.1177/1077800413513733

Morales, E. E. (2010). Linking strengths: Identifying and exploring protective factor clusters in academically resilient low-socioeconomic urban students of color. *Roeper Review*, *32*(3), 164–175. https://doi.org/10.1080/02783193.2010.485302

Morgan, C., Burns, T., Fitzpatrick, R., Pinfold, V., & Priebe, S. (2007, December). Social exclusion and mental health: Conceptual and methodological review. *British Journal of Psychiatry*. https://doi.org/10.1192/bjp.bp.106.034942

Morton, M. H., Dworsky, A., Matjasko, J. L., Curry, S. R., Schlueter, D., Chávez, R., & Farrell, A. F. (2018). Prevalence and Correlates of Youth Homelessness in the United States. Journal of Adolescent Health, *62*(1), 14–21. https://doi.org/10.1016/j.jadohealth.2017.10.006

Morton, M. H., Kugley, K., Epstein, R., & Farrell, A. (2020) Interventions for youth homelessness: A systematic review of effectiveness studies. Children and Youth Services Review, (116), https://doi.org/10.1016/j.childyouth.2020.105096

Muhammad, M., Wallerstein, N., Sussman, A. L., Avila, M., Belone, L., & Duran, B. (2015). Reflections on Researcher Identity and Power: The Impact of Positionality on Community Based Participatory Research (CBPR) Processes and Outcomes. *Critical Sociology*, *41*(7–8), 1045–1063. https://doi.org/10.1177/0896920513516025

Mukumbang, F. C., Marchal, B., Van Belle, S., & van Wyk, B. (2020). Using the realist interview approach to maintain theoretical awareness in realist studies. *Qualitative Research*, *20*(4), 485-515. https://doi.org/10.1177/1468794119881985

Mulrow C. D. (1994). Rationale for systematic reviews. *BMJ (Clinical research ed.)*, *309*(6954), 597–599. https://doi.org/10.1136/bmj.309.6954.597

Munn, Z., Barker, T. H., Moola, S., Tufanaru, C., Stern, C., McArthur, A., … Aromataris, E. (2019). Methodological quality of case series studies: An introduction to the JBI critical appraisal tool. *JBI Database of Systematic Reviews and Implementation Reports*. https://doi.org/10.11124/JBISRIR-D-19-00099

Munn, Z., Stern, C., Aromataris, E., Lockwood, C., & Jordan, Z. (2018). What kind of systematic review should I conduct? A proposed typology and guidance for systematic reviewers in the medical and health sciences. *BMC Medical Research Methodology*. BioMed Central Ltd. https://doi.org/10.1186/s12874-017-0468-4

Mutz, M., & Müller, J. (2016). Mental health benefits of outdoor adventures: Results from two pilot studies. *Journal of Adolescence,* 49, 105–114. https://doi.org/10.1016/j.adolescence.2016.03.009

Mygind, L., Kjeldsted, E., Hartmeyer, R., Mygind, E., Bølling, M., & Bentsen, P. (2019, July 1). Mental, physical and social health benefits of immersive nature-experience for children and adolescents: A systematic review and quality assessment of the evidence. *Health and Place*. Elsevier Ltd. https://doi.org/10.1016/j.healthplace.2019.05.014

Napolitano, C. M., Bowers, E. P., Gestsdóttir, S., & Chase, P. (2011). The development of intentional self-regulation in adolescence: Describing, explaining, and optimizing its link to positive youth development. In R. M. Lerner, J. V. Lerner, & J. B. Benson (Eds.), Advances in child development and behavior (Vol. 41, pp. 19–38). London, England: Academic.

Neighbourly. (2020) *Community survey reveals impact of Covid-19 on small charities.* neighbourly.com/blog/community-survey-reveals-impact-of-covid-19-on-small-charities.

Neill, J. T. (2001a). The impact of Outward Bound Challenge Courses on disadvantaged youth sponsored by Colonial Foundation. Canberra, Australia: University of Canberra

*Newman, T. J., Anderson-Butcher, D., & Amorose, A. J. (2020). Examining the influence of sport program staff and parent/caregiver support on youth outcomes. *Applied Developmental Science*, *24*(3), 263–278. https://doi.org/10.1080/10888691.2018.1467762

Nicholas, M., Hagen, P., Rahilly, K., & Swainston, N. (2012). Using participatory design methods to engage the uninterested. In *ACM International Conference Proceeding Series* (Vol. 2, pp. 121–124). https://doi.org/10.1145/2348144.2348183

*Norton, C. L., & Watt, T. T. (2014). Exploring the Impact of a Wilderness-Based Positive Youth Development Program for Urban Youth. *Journal of Experiential Education*, *37*(4), 335–350. https://doi.org/10.1177/1053825913503113

Nowell, L. S., Norris, J. M., White, D. E., & Moules, N. J. (2017). Thematic Analysis: Striving to Meet the Trustworthiness Criteria. *International Journal of Qualitative Methods*, *16*(1). https://doi.org/10.1177/1609406917733847

Nurius, P. S., Prince, D. M., & Rocha, A. (2015). Cumulative Disadvantage and Youth Well-Being: A Multi-domain Examination with Life Course Implications. *Child and Adolescent Social Work Journal*, *32*(6), 567–576. https://doi.org/10.1007/s10560-015-0396-2

Nutsford, D., Pearson, A. L., & Kingham, S. (2013). An ecological study investigating the association between access to urban green space and mental health. *Public Health*, *127*(11), 1005–1011. https://doi.org/10.1016/j.puhe.2013.08.016

O'Brien, K., & Lomas, T. (2017). Developing a Growth Mindset through outdoor personal

 development: can an intervention underpinned by psychology increase the impact of

 an outdoor learning course for young people? *Journal of Adventure Education and*

 Outdoor Learning, 17(2), 133–147. https://doi.org/10.1080/14729679.2016.1232199

Okan Miçooğullari, B., & Kirazci, S. (2016). Effects of 6 Weeks Psychological Skill Training

 on Team Cohesion, Self-confidence & Anxiety: A Case of Youth Basketball

 Players. *Universal Journal of Educational Research*, *4*(12), 2761–2768.

 https://doi.org/10.13189/ujer.2016.041210

Oliver, S., Kavanagh, J., Caird, J., Lorenc, T., Oliver, K., Harden, A., Thomas, J., Greaves,

 A., & Oakley, A. (2008). Health promotion, inequalities and young people's health: a

 systematic review of research. https://doi.org/10.1080/09540269775529

Overton, W. F. (2010). *Life-span development: Concepts and issues.* In W. F. Overton & R.

 M. Lerner (Eds.), *The handbook of life-span development, Vol. 1. Cognition, biology,*

 and methods (p. 1–29). John Wiley & Sons,

 Inc.. https://doi.org/10.1002/9780470880166.hlsd001001

Parry, B. J., Thompson. J. L., Holland, M. J. G., Quinton, M. L. & Cumming, J. (2021).

 Improving Outcomes in Young People Experiencing Homelessness with My

 Strengths Training for Life™ (MST4Life™): A Qualitative Realist Evaluation.

 Children and Youth Services Review. *121,* 105793

 https://doi.org/10.1016/j.childyouth.2020.105793

Passarelli, A., Hall, E., & Anderson, M. (2010). A Strengths-Based Approach to Outdoor and

 Adventure Education: Possibilities for Personal Growth. *Journal of Experiential*

 Education, *33*(2), 120–135. https://doi.org/10.5193/jee33.2.120

Pattoni L. *IRISS Insight 16: Strength-based approaches for working with individuals. IRISS, 2012.* www.iriss.org.uk/resources/ strengths-based-approaches-working-individuals

Pawson, R. & Tilley, N. (1997). *Realistic Evaluation.* London: SAGE

*Peralta, L. R., O'Connor, D., Cotton, W. G., & Bennie, A. (2014). The Effects of a Community and School Sport-Based Program on Urban Indigenous Adolescents' Life Skills and Physical Activity Levels: The SCP Case Study. *Health*, *06*(18), 2469–2480. https://doi.org/10.4236/health.2014.618284

Petitpas, A. J., Cornelius, A. E., Van Raalte, J. L., & Jones, T. (2005). A Framework for Planning Youth Sport Programs That Foster Psychosocial Development. *The Sport Psychologist*, *19*(1), 63–80. https://doi.org/10.1123/tsp.19.1.63

Pettit, J. W., Roberts, R. E., Lewinsohn, P. M., Seeley, J. R., & Yaroslavsky, I. (2011). Developmental Relations Between Perceived Social Support and Depressive Symptoms Through Emerging Adulthood: Blood Is Thicker Than Water. *Journal of Family Psychology*, *25*(1), 127–136. https://doi.org/10.1037/a0022320

Phelps, E., Zimmerman, S., Warren, A. A., Jelicˇicˊ, H., von Eye, A., & Lerner, R. M. (2009). The structure and developmental course of positive youth development (PYD) in early adolescence: Implications for theory and practice. *Journal of Applied Developmental Psychology,* 30(5), 571–584.

Pinkerton, J., & Dolan, P. (2007). Family support, social capital, resilience and adolescent coping. *Child and Family Social Work*, *12*(3), 219–228. https://doi.org/10.1111/j.1365-2206.2007.00497.x

Pierce, S., Gould, D., & Camiré, M. (2017). Definition and model of life skills transfer. *International Review of Sport and Exercise Psychology,* 10(1), 186–211. https://doi.org/10.1080/1750984X.2016.1199727

Pittman, K., Irby, M., & Ferber, T. (2001). *Unfinished Business: Further Reflections on a Decade of Promoting Youth Development* (pp. 3–50). In P. L. Benson and K. J. Pittman (Eds.), Trends in Youth Development. Springer. https://doi.org/10.1007/978-1-4615-1459-6_1

Ponterotto, J. G. (2005). Qualitative research in counselling psychology: A primer on research paradigms and philosophy of science. *Journal of Counseling Psychology,* 52(2), 126–136. https://doi.org/10.1037/0022-0167.52.2.126

Popay, J., Roberts, H., Sowden, A., Petticrew, M., Arai, L., Rodgers, M., … Rodgers, M. (2006). Developing guidance on the conduct of narrative synthesis in systematic reviews. *A Product from the ESRC Methods Programme. Lancaster: Institute of Health Research*, *1*, b92. DOI:10.13140/2.1.1018.4643

Poulin, J. E., & Walter, C. A. (1993). Burnout in gerontological social work. *Social work*, *38*(3), 305–310.

Porter, S., & O'Halloran, P. (2012). The use and limitation of realistic evaluation as a tool for evidence-based practice: A critical realist perspective. *Nursing Inquiry*, *19*(1), 18–28. https://doi.org/10.1111/j.1440-1800.2011.00551.x

Powell, L. A., Parker, J., Weighall, A., & Harpin, V. (2021). Psychoeducation Intervention Effectiveness to Improve Social Skills in Young People with ADHD: A Meta-Analysis. *Journal of attention disorders*, 1087054721997553. Advance online publication. https://doi.org/10.1177/1087054721997553

Praskova, A., Creed, P. A., & Hood, M. (2015). Self-Regulatory Processes Mediating Between Career Calling and Perceived Employability and Life Satisfaction in Emerging Adults. *Journal of Career Development*, *42*(2), 86–101. https://doi.org/10.1177/0894845314541517

Prata- Linhares, M. M., Cardoso, T. da S. G., Lopes-Jr, D. S., & Zukowsky-Tavares, C. (2020). Social distancing effects on the teaching systems and teacher education programmes in Brazil: reinventing without distorting teaching. *Journal of Education for Teaching*, *46*(4), 554–564. https://doi.org/10.1080/02607476.2020.1800406

Proctor, S. L., & Boan-Lenzo, C. (2010). Prevalence of depressive symptoms in male intercollegiate student-athletes and nonathletes. *Journal of Clinical Sport Psychology*, *4*(3), 204–220. https://doi.org/10.1123/jcsp.4.3.204

Prouty, D., Panicucci, J., & Collinson, R. (2007). *Adventure education: Theory and applications.* Human Kinetics.

Pryor, A. (2009). *Wild adventures in wellbeing: foundations, features and wellbeing impacts of Australian outdoor adventure interventions (OAI),* Ph.D. thesis [unpublished], School of Health and Social Development, Deakin University.

Public Health England, & UCL Institute of Health. (2014). *Local action on health inequalities: Reducing the number of young people not in employment, education or training (NEET).* Retrieved from www.instituteofhealthequity.org

Punton, M., Vogel, I., & Lloyd, R. (2016). Reflections from a Realist Evaluation in Progress: Scaling Ladders and Stitching Theory. *CDI Practice Paper*. Retrieved from, https://www.ids.ac.uk/publications/reflections-from-a-realist-evaluation-in-progress-scaling-ladders-and-stitching-theory/

Quarmby, T., & Pickering, K. (2016). Physical activity and children in care: A scoping

    review of barriers, facilitators, and policy for disadvantaged youth. *Journal of*

    Physical Activity and Health. Human Kinetics Publishers Inc.

    https://doi.org/10.1123/jpah.2015-0410

Raphaelis, S., Kobleder, A., Mayer, H., & Senn, B. (2017). Effectiveness, structure, and

    content of nurse counseling in gynecologic oncology: A systematic review. *BMC*

    Nursing, *16*(1). https://doi.org/10.1186/s12912-017-0237-z

Rapp, C. A., & Goscha, R. J. (2006). *The strengths model: Case management with people*

    with psychiatric disabilities (2nd ed.). Oxford University Press.

Rapp, C. A., Pettus, C. A., & Goscha, R. J. (2006). Principles of strengths-based

    policy. *Journal of Policy Practice*, *5*(4), 3–18. https://doi.org/10.1300/J508v05n04_02

Rapp, C. A., & Sullivan, W. P. (2014). The Strengths Model: Birth to Toddlerhood. *Advances*

    in Social Work, *15*(1), 129–142. https://doi.org/10.18060/16643

*Ramadoss, R., Bose, B. K., Matthew, R., Frank, J. L., Kubo, A., & Permanente, K. (2010).

    Transformative Life Skills: Pilot Studies of a Yoga Model for Reducing Perceived

    Stress and Improving Self-Control in Vulnerable Youth Niroga's Pilot Programs:

    Yoga-Based Transformative Life Skills. *International Journal of Yoga Therapy –*,

    20(20), 75–80. https://doi.org/10.17761/ijyt.20.1.a4214885w7101046

Renjilian, C. B., Miller, V., & Ginsburg, K. (2018). Feasibility and Face Validity of a

    Modified Adverse Childhood Experiences (Aces) Inventory Formatted to Improve

    Youth Acceptance and Confidence with Participation in Research. *Journal of*

    Adolescent Health, *62*(2), S112. https://doi.org/10.1016/j.jadohealth.2017.11.228

Resnick, M. D., Catalano, R. F., Sawyer, S. M., Viner, R., & Patton, G. C. (2012). Seizing the opportunities of adolescent health. *The Lancet*, *379*(9826), 1564–1567. https://doi.org/10.1016/S0140-6736(12)60472-3

Reverdito, R. S., Carvalho, H. M., Galatti, L. R., Scaglia, A. J., Gonçalves, C. E., & Paes, R. R. (2017). Effects of Youth Participation in Extra-Curricular Sport Programs on Perceived Self-Efficacy: A Multilevel Analysis. *Perceptual and Motor Skills*, *124*(3), 569–583. https://doi.org/10.1177/0031512517697069

Rew, L., Slesnick, N., Johnson, K., Aguilar, R., & Cengiz, A. (2019). Positive attributes and life satisfaction in homeless youth. *Children and Youth Services Review,* 100(February), 1–8. https://doi.org/10.1016/j.childyouth.2019.02.021

Reynders, B., Vansteenkiste, M., Van Puyenbroeck, S., Aelterman, N., De Backer, M., Delrue, J., … Broek, G. V. (2019). Coaching the coach: Intervention effects on need-supportive coaching behavior and athlete motivation and engagement. *Psychology of Sport and Exercise*, *43*, 288–300. https://doi.org/10.1016/j.psychsport.2019.04.002

Rice, E., Kurzban, S., & Ray, D. (2012). Homeless but connected: the role of heterogeneous social network ties and social networking technology in the mental health outcomes of street-living adolescents. *Community mental health journal*, *48*(6), 692–698. https://doi.org/10.1007/s10597-011-9462-1

*Riley, A., Anderson-Butcher, D., Logan, J., Newman, T. J., & Davis, J. (2017). Staff Practices and Social Skill Outcomes in a Sport-Based Youth Program. *Journal of Applied Sport Psychology*, *29*(1), 59–74. https://doi.org/10.1080/10413200.2016.1179700

Robertson, A., Cresswell, K., Takian, A., Petrakaki, D., Crowe, S., Cornford, T., Barber, N., Avery, A., Fernando, B., Jacklin, A., Prescott, R., Klecun, E., Paton, J., Lichtner, V.,

Quinn, C., Ali, M., Morrison, Z., Jani, Y., Waring, J., Marsden, K., … Sheikh, A. (2010). Implementation and adoption of nationwide electronic health records in secondary care in England: qualitative analysis of interim results from a prospective national evaluation. *BMJ (Clinical research ed.)*, *341*, c4564. https://doi.org/10.1136/bmj.c4564

Rokach, A. (2005). The causes of loneliness in homeless youth. *Journal of Psychology: Interdisciplinary and Applied*, *139*(5), 469–480. https://doi.org/10.3200/JRLP.139.5.469-480

*Robbins, L. B., Ling, J., Sharma, D. B., Dalimonte-Merckling, D. M., Voskuil, V. R., Resnicow, K., … Pfeiffer, K. A. (2019). Intervention Effects of "girls on the Move" on Increasing Physical Activity: A Group Randomized Trial. *Annals of Behavioral Medicine*, *53*(5), 493–500. https://doi.org/10.1093/abm/kay054

Roberts, J., Sanci, L., & Haller, D. (2012). Global adolescent health: *British Journal of General Practice*, *62*(640), 608–610.

Robinson, J. L. (2013). Youth Homelessness and Social Exclusion: A "Methods from the Margins" Approach. Doctoral dissertation, University of Waterloo, Canada

Robson, J., Ashbourne, L. M., & de Leon, K. (2016). THE SPECTRUM OF VISIBILITY: YOUTH EXPERIENCES OF MARGINALIZATION AND HOMELESSNESS. *International Journal of Child, Youth and Family Studies*, *7*(1), 104–124. https://doi.org/10.18357/ijcyfs.71201615635

Roffey, S. (2011). Enhancing Connectedness in Australian Children and Young People. *Asian Journal of Counselling*, *18*(2), 15–39. Retrieved from http://www.circlesolutionsnetwork.com/wp-content/uploads/2014/03/8-2011-Roffey-Enhancing-Connectedness.pdf

Romm, N. R. A., (2010). *New racism: Revisiting researcher accountabilities*. *New Racism: Revisiting Researcher Accountabilities* (pp. 1–496). Springer Netherlands. https://doi.org/10.1007/978-90-481-8728-7

Romm, N. R. A., (2014). Exploration of transformative paradigm with pragmatic twist to contribute to educational change. *International Journal on New Trends in Education and Their Implications (Ijonte)*, *5*(2), 12.

Romm, N. R. A., Nel, N. M., & Tlale, L. D. N. (2013). Active facilitation of focus groups: Co-exploring with participants the implementation of inclusive education. South *African Journal of Education,* 33(4), Article #811.

Rorty, R. (1999). *Philosophy and social hope.* London: Penguin Books.

Roth, J. L., & Brooks-Gunn, J. (2003). What is a youth development program? Identifying defining principles. In D. Wertlieb, F. Jacobs, & R. M. Lerner (Eds.), *Enhancing the life chances of youth and families: Public service systems and public policy perspectives: Vol. 2. Handbook of applied developmental science: Promoting positive child, adolescent, and family development through research, policies, and progra* (Vol. 2, pp. 197–224). SAGE Publications.

Russell, C. V., and C. Bisson. 2003. "Teaching Group Formation Activities, Group Formation Tools and Group Process Tools." In *Developing Challenge Course Programs for Schools*, edited by S. Wurdinger and J. Steffen, 103– 138. Dubuque, IA: Kendall Hunt

Ryan, B. J., Coppola, D., Canyon, D. V., Brickhouse, M., & Swienton, R. (2020). COVID-19 Community Stabilization and Sustainability Framework: An Integration of the Maslow Hierarchy of Needs and Social Determinants of Health. *Disaster Medicine*

and Public Health Preparedness, *14*(5), 623–629.

https://doi.org/10.1017/dmp.2020.109

Ryan, R. M. (1995). Psychological Needs and the Facilitation of Integrative

Processes. *Journal of Personality*, *63*(3), 397–427. https://doi.org/10.1111/j.1467-

6494.1995.tb00501.x

Ryan, R. M., & Deci, E. L. (2000). Self-determination theory and the facilitation of intrinsic

motivation, social development, and wellbeing. *The American Psychologist, 55,* 68–

78. https://doi:10.1037//0003-066x.55.1.68

Salvini, M., Gall, S., Müller, I., Walter, C., du Randt, R., Steinmann, P., … Gerber, M.

(2018). Physical activity and health-related quality of life among schoolchildren from

disadvantaged neighbourhoods in Port Elizabeth, South Africa. *Quality of Life*

Research, *27*(1), 205–216. https://doi.org/10.1007/s11136-017-1707-1

Sanders, J., Munford, R., & Liebenberg, L. (2017). Positive youth development practices and

better outcomes for high risk youth. *Child Abuse and Neglect*, *69*, 201–212.

https://doi.org/10.1016/j.chiabu.2017.04.029

Sanders, J., Munford, R., Thimasarn-Anwar, T., Liebenberg, L., & Ungar, M. (2015). The

role of positive youth development practices in building resilience and enhancing

wellbeing for at-risk youth. *Child Abuse and Neglect*, *42*, 40–53.

https://doi.org/10.1016/j.chiabu.2015.02.006

Santa Maria, D. M., Narendorf, S. C., & Cross, M. B. (2018). Prevalence and Correlates of

Substance Use in Homeless Youth and Young Adults. *Journal of addictions*

nursing, *29*(1), 23–31. https://doi.org/10.1097/JAN.0000000000000206

Salter, K. L., & Kothari, A. (2014). Using realist evaluation to open the black box of
 knowledge translation: A state-of-the-art review. *Implementation Science*. BioMed
 Central Ltd. https://doi.org/10.1186/s13012-014-0115-y

Savin-Baden, M., & Major, C. M. (2013). Qualitative Research: An Essential Guide to
 Theory and Practice. *Routledge*, 96–97.

Sawyer, S. M., Afifi, R. A., Bearinger, L. H., Blakemore, S. J., Dick, B., Ezeh, A. C., &
 Patton, G. C. (2012). Adolescence: A foundation for future health. *The Lancet,
 379*(9826), 1630–1640. https://doi.org/10.1016/S0140-6736(12)60072-5

Sawyer, S. M., Azzopardi, P. S., Wickremarathne, D., & Patton, G. C. (2018). The age of
 adolescence. *The Lancet Child and Adolescent Health*. Elsevier B.V.
 https://doi.org/10.1016/S2352-4642(18)30022-1

Scarf, D., Kafka, S., Hayhurst, J., Jang, K., Boyes, M., Thomson, R., & Hunter, J. A. (2018).
 Satisfying psychological needs on the high seas: explaining increases self-esteem
 following an Adventure Education Programme. *Journal of Adventure Education and
 Outdoor Learning*, *18*(2), 165–175. https://doi.org/10.1080/14729679.2017.1385496

Schaillée, H., Theeboom, M., & Van Cauwenberg, J. (2017). Peer- and coach-created
 motivational climates in youth sport: Implications for positive youth development of
 disadvantaged girls. *Social Inclusion*, *5*(2PracticeandResearch), 163–178.
 https://doi.org/10.17645/si.v5i2.870

Schleiden, C. (2020). Racial Disparities in Basic Needs: MFTs Utilizing Maslow's Hierarchy
 when Working with Marginalized Youth. (Doctoral dissertation).

Schinke, R. J., & Blodgett, A. T. (2016). Embarking on community-based participatory
 action research: A methodology that emerges from (and in) communities.

In *Routledge Handbook of Qualitative Research in Sport and Exercise* (pp. 88–99). Routledge.

Schinke, R. J., Stambulova, N. R., Lidor, R., Papaioannou, A., & Ryba, T. V. (2015). ISSP position stand: Social missions through sport and exercise psychology. *International Journal of Sport and Exercise Psychology*, *14*(1), 4–22. https://doi.org/10.1080/1612197X.2014.999698

Schutte, N. S., & Malouff, J. M. (2019). The Impact of Signature Character Strengths Interventions: A Meta-analysis. *Journal of Happiness Studies*, *20*(4), 1179–1196. https://doi.org/10.1007/s10902-018-9990-2

Schwan, K. J., Fallon, B., & Milne, B. (2018). "The one thing that actually helps": Art creation as a self-care and health-promoting practice amongst youth experiencing homelessness. *Children and Youth Services Review*, *93*, 355–364. https://doi.org/10.1016/j.childyouth.2018.08.002

Scambler, G., & Scambler, S. (2013). Marx, critical realism, and health inequalities. In *Medical Sociology on the Move: New Directions in Theory* (pp. 83–103). Springer Netherlands. https://doi.org/10.1007/978-94-007-6193-3_5

Schumann, H., & Presser, S. (1996). *Questions and answers in attitude surveys: Experiments in question form, wording and context.* London: SAGE.

Scriven, M. (1994). The Fine Line between Evaluation and Explanation. *American Journal of Evaluation*, *15*(1), 75–77. https://doi.org/10.1177/109821409401500108

Search Institute. (2012). Developmental assets profile. Retrieved from http://www.searchinstitute.org/survey-services/surveys/developmental-assets-profile

Seligman, M. E. P., Schulman, P., and DeRubeis, R. J. (1999). The prevention of depression
and anxiety. Prevent. Treat. 2:8a. https://doi.org/10.1037/1522-3736.2.1.28a

Sheikh, M. A., Abelsen, B., & Olsen, J. A. (2016). Clarifying associations between childhood
adversity, social support, behavioral factors, and mental health, health, and well-being
in adulthood: A population-based study. *Frontiers in Psychology*, *7*(727), 1–24.
https://doi.org/10.3389/fpsyg.2016.00727

Sheard, M., & Golby, J. (2006). Effect of a psychological skills training program on
swimming performance and positive psychological development. *International
Journal of Sport and Exercise Psychology*, *4*(2), 149–169.
https://doi.org/10.1080/1612197x.2006.9671790

Shoup, J. A., Gattshall, M., Dandamudi, P., & Estabrooks, P. (2008). Physical activity,
quality of life, and weight status in overweight children. *Quality of life research : an
international journal of quality of life aspects of treatment, care and
rehabilitation*, *17*(3), 407–412. https://doi.org/10.1007/s11136-008-9312-y

Sibthorp, J., Collins, R., Rathunde, K., Paisley, K., Schumann, S., Pohja, M., … Baynes, S.
(2015). Fostering Experiential Self-Regulation Through Outdoor Adventure
Education. *Journal of Experiential Education*, *38*(1), 26–40.
https://doi.org/10.1177/1053825913516735

Sibthorp, J., Furman, N., Paisley, K., Gookin, J., & Schumann, S. (2011b). Mechanisms of
learning transfer in adventure education: Qualitative results from the NOLS transfer
survey. *Journal of Experiential Education*. 34(2), 109-118.
https://doi.org/10.5193/jee34.2.109

Sibthorp, J., & Morgan, C. (2011). Adventure-based programming: exemplary youth

　　development practice. *New Directions for Youth Development*, 2011(130), 105–119.

　　https://doi.org/10.1002/yd.400

Sibthorp, J., Paisley, K., & Gookin, J. (2007). Exploring participant development through

　　adventure-based programming: a model from the National Outdoor Leadership

　　School. *Leisure Sciences,* 29(1), 1-18.

　　https://doi.org/doi:10.1080/01490400600851346

　Simone, M., Loth, K., Peterson, C. B., Berge, J. M., Eisenberg, M. E., & Neumark-Sztainer,

　　D. (2021). Social Isolation in a Population-Based Sample of Emerging Adults: Who Is

　　on Their Own?. *Emerging Adulthood*, https://doi.org/doi:21676968211021677.

Setia M. S. (2016). Methodology Series Module 1: Cohort Studies. Indian journal of

　　dermatology, 61(1), 21–25. https://doi.org/10.4103/0019-5154.174011

Slesnick, N., Dashora, P., Letcher, A., Erdem, G., & Serovich, J. (2009). Homeless Youth:

　　Moving Forward. *Child Youth Services Research, 31*(7), 732–742.

　　https://doi.org/10.1016/j.childyouth.2009.01.006.A

Slesnick, N., Zhang, J., & Brakenhoff, B. (2017). Personal control and service connection as

　　paths to improved mental health and exiting homelessness among severely

　　marginalized homeless youth. *Children and Youth Services Review, 73*, 121-127.

　　https://doi.org/10.1016/j.childyouth.2016.11.033

Smith, E. J. (2006). The Strength-Based Counseling Model. *The Counseling*

　　Psychologist, *34*(1), 13–79. https://doi.org/10.1177/0011000005277018

Smith, B., & McGannon, K. R. (2018). Developing rigor in qualitative research: problems

　　and opportunities within sport and exercise psychology. *International Review of Sport*

and Exercise Psychology, 11(1), 101–121.

https://doi.org/10.1080/1750984X.2017.1317357

Smith, B., & Sparkes, A. C. (Eds.). (2016). Routledge handbook of qualitative research

methods in sport and exercise. London: Routledge.

Spaaij, R. (2012). Building social and cultural capital among young people in disadvantaged

communities: lessons from a Brazilian sport-based intervention program. *Sport,

Education and Society*, *17*(1), 77–95. https://doi.org/10.1080/13573322.2011.607913

Spaaij, R. (2009). Sport as a Vehicle for Social Mobility and Regulation of Disadvantaged

Urban Youth: Lessons from Rotterdam. *International Review for the Sociology of

Sport*, *44*(2–3), 247–264. https://doi.org/10.1177/1012690209338415

Spaaij, R., & Jeanes, R. (2013). Education for social change? A Freirean critique of sport for

development and peace. *Physical Education and Sport Pedagogy, 18*(4), 442–457.

https://doi.org/10.1080/17408989.2012.690378

Sprague Martinez, L. S., Tang Yan, C., Augsberger, A., Ndulue, U. J., Libsch, E. A., Pierre,

J. S., Freeman, E., & Gergen Barnett, K. (2020). Changing The Face Of Health Care

Delivery: The Importance Of Youth Participation. *Health affairs (Project

Hope)*, *39*(10), 1776–1782. https://doi.org/10.1377/hlthaff.2020.00728

Stake, R., E. (1995) *The art of case study research* London. Sage Publications Ltd.

Spencer, S. M., & Patrick, J. H. (2009). Social support and personal mastery as protective

resources during emerging adulthood. *Journal of Adult Development*, *16*(4), 191–198.

https://doi.org/10.1007/s10804-009-9064-0

Spencer, N., Thanh, T. M., & Louise, S. (2013). Low income/socio-economic status in early

childhood and physical health in later childhood/adolescence: A systematic review.

Maternal and Child Health Journal, 17(3), 424–431. https://doi.org/10.1007/s10995-

012-1010-2

Sproule, J., Martindale, R., Wang, J., Allison, P., Nash, C., & Gray, S. (2013). Investigating

the experience of outdoor and adventurous project work in an educational setting

using a self-determination framework. *European Physical Education Review*, *19*(3),

315–328. https://doi.org/10.1177/1356336X13495629

Stefansson, K. K., Gestsdottir, S., Birgisdottir, F., & Lerner, R. M. (2020). School

engagement and intentional self-regulation: A reciprocal relation in adolescence.

Journal of Adolescence, 64, 23-33. https://doi.org/10.1016/j.adolescence.2018.01.005

Stepp, S. D., Pardini, D. A., Loeber, R., & Morris, N. A. (2011). The Relation between

Adolescent Social Competence and Young Adult Delinquency and Educational

Attainment among At-Risk Youth: The Mediating Role of Peer Delinquency. *The

Canadian Journal of Psychiatry,* 56(8), 457–465.

https://doi.org/10.1177/070674371105600803

Stewart, M., Reutter, L., Letourneau, N., Makwarimba, E., & Hungler, K. (2010). Supporting

homeless youth: Perspectives and preferences. *Journal of Poverty,* 14(2), 145–165.

https://doi.org/10.1080/10875541003711631

Stuart, K., & Perris, E. (2017). Asset-based youth support—reclaiming the roots of youth

work at the Foyer Federation. *Cogent Social Sciences*, *3*(1).

https://doi.org/10.1080/23311886.2017.1377989

Super, S., Hermens, N., Verkooijen, K., & Koelen, M. (2018). Examining the relationship

    between sports participation and youth developmental outcomes for socially

    vulnerable youth. *BMC Public Health*, *18*(1), 1–12. https://doi.org/10.1186/s12889-

    018-5955-y

Swann, C., Moran, A., and Piggott, D. (2015). Defining elite athletes: issues in the study of

    expert performance in sport psychology. *Psychol. Sport Exer.* 16, 3–14. doi:

    https://doi.org/10.1016/j.psychsport.2014.07.004

Tam, T. W., Zlotnick, C., & Robertson, M. J. (2003). Longitudinal Perspective: Adverse

    Childhood Events, Substance Use, and Labor Force Participation among Homeless

    Adults. *American Journal of Drug and Alcohol Abuse*, *29*(4), 829–846.

    https://doi.org/10.1081/ADA-120026263

Teddlie, Charles, and Abbas Tashakkori. 2009. *Foundations of Mixed Methods Research*.

    Thousand Oaks: Sage Publications.

*Terry, P. C., Hahn, A., & Simjanovic, M. (2014). Effects of a sport programme (Box'Tag®)

    on disadvantaged youth participants. *International Journal of Sport and Exercise

    Psychology*, *12*(3), 258–272. https://doi.org/10.1080/1612197X.2014.880263

Teixeira, P. J., Carraça, E. V., Markland, D., Silva, M. N., & Ryan, R. M. (2012). Exercise,

    physical activity, and self-determination theory: a systematic review. *International

    Journal of Behavioral Nutrition and Physical Activity*, *9*(1), 1-30.

    https://doi.org/10.1186/1479-5868-9-78

The Organisation for Economic Co-operation and Development. (2020).

    https://www.oecd.org/coronavirus/policy-responses/youth-and-covid-19-response-

    recovery-and-resilience-c40e61c6/

The Prince's Trust (2010). *The Cost of Exclusion. Counting the cost of youth disadvantage in the UK. The Prince's Trust*. https://doi.org/10.5848/amacom.978-0-814416-50-1_7

Tidmarsh, G., Whiting, R. J., Thompson, J. L., & Cumming, J. (2021). Assessing the fidelity of delivery style of a mental skills training programme for young people experiencing homelessness [manuscript submitted for publication]. School of Sport, Exercise and Rehabilitation Sciences, University of Birmingham, UK.

Tillmann, S., Tobin, D., Avison, W. R., & Gilliland, J. (2018) Mental health benefits of interactions with nature in children and teenagers: A systematic review. *Journal of Epidemiology & Community Health*, 72(10) 958-966. http://dx.doi.org/10.1136/jech-2018-210436

To, S. (2016). Loneliness, the search for meaning, and the psychological well-being of economically disadvantaged Chinese adolescents living in Hong Kong: Implications for life skills development programs. *Children and Youth Services Review*, *71*, 52–60. https://doi.org/10.1016/j.childyouth.2016.10.037

Tyler, K. A., Schmitz, R. M., & Ray, C. M. (2019). Social and psychological resources among homeless youth: protection against risk for physical victimization? *Journal of Social Distress and the Homeless*, *28*(2), 115–122. https://doi.org/10.1080/10530789.2019.1585034

*Ullrich-French, S., & McDonough, M. H. (2013). Correlates of long-term participation in a physical activity-based positive youth development program for low-income youth: Sustained involvement and psychosocial outcomes. *Journal of Adolescence*, *36*(2), 279–288. https://doi.org/10.1016/j.adolescence.2012.11.006

*Ullrich-French, S., McDonough, M. H., & Smith, A. L. (2012). Social Connection and Psychological Outcomes in a Physical Activity-Based Youth Development Setting.

Research Quarterly for Exercise and Sport, *83*(3), 431–441.
https://doi.org/10.1080/02701367.2012.10599878

Universities Canada. 2018. https://www.univcan.ca/wp-content/uploads/2018/03/study-on-experiential-learning-and-pathways-to-employment-for-canadian-youth-submission-march-2018accessible.pdf

Urban, J. B., Lewin-Bizan, S., & Lerner, R. M. (2010). The role of intentional self-regulation, lower neighborhood ecological assets, and activity involvement in youth developmental outcomes. *Journal of Youth and Adolescence*, *39*(7), 783–800. https://doi.org/10.1007/s10964-010-9549-y

Van De Pol, P. K. C., Kavussanu, M., & Kompier, M. (2015). Autonomy support and motivational responses across training and competition in individual and team sports. *Journal of Applied Social Psychology*, *45*(12), 697–710. https://doi.org/10.1111/jasp.12331

Van Der Vennet, R. (2002). *A study of mental health workers in an art therapy group to reduce secondary trauma and burnout. Dissertation Abstracts International: Section B: The Sciences and Engineering*. ProQuest Information & Learning. Retrieved from http://search.ebscohost.com/login.aspx?direct=true&db=psyh&AN=2003-95006-202&lang=zh-cn&site=ehost-live

Van Neikerk, M. (2016). The effect of a mental skills training programme on the anxiety of athletes. MSc (Psychology) [unpublished]: University of Johannesburg. Retreived from:
https://ujcontent.uj.ac.za/vital/access/manager/Repository/uj:24078?site_name=GlobalView

Van Sluijs, E. M., McMinn, A. M., & Griffin, S. J. (2007). Effectiveness of interventions to

promote physical activity in children and adolescents: systematic review of controlled

trials. *Bmj*, *335*(7622), 703. https://doi.org/10.1136/bmj.39320.843947.BE

Vancea, M., & Utzet, M. (2017, February 1). How unemployment and precarious

employment affect the health of young people: A scoping study on social

determinants. *Scandinavian Journal of Public Health*. SAGE Publications Ltd.

https://doi.org/10.1177/1403494816679555

Vealey, S. R. (2007). Mental Skills Training in Sport. In G. Tenenbaum, R. Eklund and R.

Singer (Eds.), *Handbook of sport psychology*. New Jersey: Wiley.

Vealey, R. S. (2012). Mental Skills Training in Sport. In *Handbook of Sport Psychology:*

Third Edition (pp. 285–309). John Wiley and Sons.

https://doi.org/10.1002/9781118270011.ch13

Viner, R. M., Ozer, E. M., Denny, S., Marmot, M., Resnick, M., Fatusi, A., & Currie, C.

(2012). Adolescence and the social determinants of health. *The Lancet*, *379*(9826),

1641–1652. https://doi.org/10.1016/s0140-6736(12)60149-4

Vitopoulos, N., Cerswell Kielburger, L., Frederick, T. J., McKenzie, K., & Kidd, S. (2017).

Developing a trauma-informed mental health group intervention for youth

transitioning from homelessness. *Professional Psychology: Research and Practice,*

48(6), 499–509. https://doi.org/10.1037/pro0000168

Walker, J. S. (2015). A Theory of Change for Positive Developmental Approaches to

Improving Outcomes Among Emerging Adults with Serious Mental Health

Conditions. *Journal of Behavioral Health Services and Research*, *42*(2), 131–149.

https://doi.org/10.1007/s11414-015-9455-x

Wallerstein, N. B., & Duran, B. (2006). Using Community-Based Participatory Research to Address Health Disparities. *Health Promotion Practice*, *7*(3), 312–323. https://doi.org/10.1177/1524839906289376

Wallerstein, N., & Duran, B. (2010). Community-based participatory research contributions to intervention research: the intersection of science and practice to improve health equity. *American journal of public health*, *100* (Suppl 1), S40–S46. https://doi.org/10.2105/AJPH.2009.184036

Wallerstein, N., Muhammad, M., Sanchez-Youngman, S., Rodriguez Espinosa, P., Avila, M., Baker, E. A., … Duran, B. (2019). Power dynamics in community-based participatory research: A multiple–case study analysis of partnering contexts, histories, and practices. Health Education & Behavior, 46(1), 19S-32S. https://doi.org/10.1177/1090198119852998

Walsham, G. (1995). The emergence of interpretivism in IS research. *Information Systems Research*, *6*(4), 376–394. https://doi.org/10.1287/isre.6.4.376

Warren, K., Roberts, N. S., Breunig, M., & Alvarez, M. A. G. (2014). Social justice in outdoor experiential education: A state of knowledge review. *Journal of Experiential Education*, 37, 1-15. https://doi.org/doi:10.1177/1053825913518898

Watson, J., & Cuervo, H. (2017). Youth homelessness: A social justice approach. Journal of Sociology, 53(2), 461–475. https://doi.org/10.1177/1440783317705204

Wenzel, M., Senf, N. N., & Koch, J. (2016). Exploring complex phenomena with qualitative research methods: An examination of strategic innovation trajectories in haute cuisine. In *FGF Studies in Small Business and Entrepreneurship* (pp. 163–182). Springer. https://doi.org/10.1007/978-3-319-27108-8_8

Westhorp, G. (2019). Understanding Mechanisms in Realist Evaluation and Research. In *Doing Realist Research* (pp. 41–58). SAGE Publications Ltd. https://doi.org/10.4135/9781526451729.n4

Westhorp, G. (2012). Using complexity-consistent theory for evaluating complex systems. *Evaluation*, *18*(4), 405–420. https://doi.org/10.1177/1356389012460963

Williamson, P., Altman, D., Blazeby, J., Clarke, M., & Gargon, E. (2012). Driving up the quality and relevance of research through the use of agreed core outcomes. *Journal of health services research & policy*, *17*(1), 1–2. https://doi.org/10.1258/jhsrp.2011.011131

Wilkerson, T. A., Stokowski, S., Fridley, A., Dittmoare, S. W., Bell, C. (2020). Black Football Student-Athletes' Perceived Barriers to Seeking Mental Health Services. [Special Issue]. *Journal of Issues in Intercollegiate Athletics*. 55-81. http://csri-jiia.org/wp-content/uploads/2020/02/SI_2020_01_03.pdf

Whitley, M. A., Massey, W. V., Camiré, M., Blom, L. C., Chawansky, M., Forde, S., … Darnell, S. C. (2019). A systematic review of sport for development interventions across six global cities. *Sport Management Review*. Elsevier Ltd. https://doi.org/10.1016/j.smr.2018.06.013

Wood, D., Crapnell, T., Lau, L., Bennett, A., Lotstein, D., Ferris, M., & Kuo, A. (2017). Emerging adulthood as a critical stage in the life course. In *Handbook of Life Course Health Development* (pp. 123–143). Springer International Publishing. https://doi.org/10.1007/978-3-319-47143-3_7

Yin, R. K. (2003). *Case study research: Design and methods (3rd ed.).* Sage

Yin, R. K. (2014). *Case study research: Design and methods (5th ed.).* SAGE Publications

Yin, R. K. (2013). Validity and generalization in future case study evaluations. *Evaluation,* *19*(3), 321–332. https://doi.org/10.1177/1356389013497081

Young Minds. (2021). *Coronavirus: Impact on young people with mental health needs* *Survey 4: February 2021.* https://youngminds.org.uk/media/4350/coronavirus-report-winter.pdf

Appendices

List of appendices

Appendix A. MST4Life™ delivery guidelines, informed by SDT

Appendix B. Breakdown of key terms search in different databases

Appendix C. Data extraction sheet

Appendix D. Quality appraisal and risk of bias for included studies

Appendix E. Overview of scores for included articles in critical appraisal tools

Appendix F. Logic Model of MST4Life

Appendix G. Information and consent form for young people (also used in Chapter 5)

Appendix H. Information and consent form for staff and OAE instructors (also used in Chapter 5)

Appendix I. Semi-structured staff interview protocol for data collection during Phase 1

Appendix J. Semi-structured staff interview protocol for follow-up data collection

Appendix K. Focus group protocol for follow-up data collection with OAE instructors

Appendix L. List of all diary room questions used for data collection during Phase 1 of MST4Life™

Appendix M. List of all diary room questions used for data collection during the OAE component

Appendix A. MST4Life™ delivery guidelines, informed by SDT

MST4Life™ *"Self-reflection"* tool

As a facilitator of psychologically informed and strengths-based practice, such as the Mental Skills Training (MST) Toolkit, it's important to continually reflect for professional development. The purpose of this tool is **1)** to provide structure to your personal reflections and **2)** to help facilitators adhere to the strengths-based delivery style of MST4Life™* (we know from research that this delivery style is crucial to helping young people achieve positive outcomes).

Understanding the form

The first column breaks down the delivery style of MST facilitators into four broad areas:

Competence**, Autonomy**, Relatedness** and Facilitation skills

Each delivery is subdivided into helpful (darker shades) and unhelpful (lighter shades) delivery behaviours. For example, behaviours that may thwart or support a young person's feelings of autonomy are included together. Even the best facilitators sometimes display behaviours that are less than ideal – this form provides an opportunity to reflect and improve upon those areas.

Each delivery style area has specific behaviours associated with it. For example, the *Relatedness* area of delivery style includes the behaviours of being friendly, relaxed and welcoming, and being active during sessions.

Using the form

Place a score in the 'Rating' column according to a 0-3 scale for each behaviour within each delivery style (details of scaling can be found on the tracking tool below). Use the comments box to expand upon your scores, give a specific example, or provide context.

Darker shades: 0 = Didn't do this at all   1 = Didn't do this well   2 = Did this somewhat well   3 = Did this very well
Lighter shades: 0 = Didn't do this at all   1 = Did this a little   2 = Did this a few times   3 = Did this often

Area of delivery style	Behaviours	0-3	Comments
Supporting Competence (AKA effectiveness, self-efficacy, mastery)	Acknowledged contributions & praised specific successes		
	Focused on solutions[1]		
	Focused on mental skills and strengths		
	Had a positive and energetic approach		
	Provided a sense of purpose to session		
Competence thwarting	Focused on the past		
	Focused on problems		
	Punished mistakes		
	Made fun of someone		
Supporting Autonomy (AKA independence, self-management)	Utilised non-directive conversation[2]		
	Asked questions and explored viewpoints		
	Provided reasons for requests		
	Acknowledged and showed acceptance of people's perspectives		

363

Autonomy thwarting	Provided opportunities for choice		
	Engaged in directive conversation[2]		
	Completed an activity for someone		
	Offered rewards to do something		
	Expressed own views above perspectives of group members; rejected a person's perspective		
	Readily provided reassurance[3]		
	Used controlling language such as "you need to/have to/should/must"		
Supporting Relatedness (AKA belonging, connectedness)	Came across as friendly, relaxed and welcoming e.g. greeted each person (vs. coming across as cold/unfriendly)		
	Played an active part in the session (vs. passive rather than proactive; did not display interest)		
	Built rapport e.g. made informal conversation not related to session; attempted to get to know people better		
	Tried to involve everyone in activities or discussions		
Relatedness thwarting	Only talked to people who are already engaged		
	Only talked to people when related to the session		
	Restricted interaction between group members		
	Used humour inappropriately		
Facilitation skills: Structure, group management, and communication	Was prepared and organised for and during the session (vs. unorganised materials, over-reliant on session plan)		
	Helped maintain group order and focus e.g. redirected extended unrelated conversation, reminded group of ground rules		
	Displayed open body language		
	Clear explanations of topics/activities		
	Provided guidance throughout activities		
	Made use of open questions		
	Used reflecting, paraphrasing & summarising[4]		
Facilitation skills	Got distracted from session e.g. by having an extended informal conversation		
	Asked leading questions (e.g., did you enjoy today's session?)		
	Unclear explanations of topics/activities (e.g. complicated words, unsure of session activity)		

Appendix B. Breakdown of key terms search in different databases

	Disadvantaged	Young	Positive Youth Development	Physical Activity	Health
PsycINFO	exp DISADVANTAGED/ at risk populations/ exp POVERTY/ exp SOCIOECONOMIC STATUS/ urban environments/ exp Minority Groups/ exp Lower Income Level/	*no additional headings*	exp Adolescent Development/	exp Physical Activity exp SPORTS/ exp RECREATION/ exp EXERCISE/ exp PHYSICAL FITNESS/ physically active games	exp Health/ exp Mental Health/ exp HEALTH PROMOTION/ exp Health Behavior/ exp Psychological Development/ exp PSYCHOSOCIAL DEVELOPMENT/ exp Physical Health/
MEDLINE	Poverty/ Socioeconomic Factors/ Urban Population/ Minority Groups/ Vulnerable Populations/	Adolescent/ Young Adult/	Adolescent Development/	Sports/ Recreation/ Exercise/ Physical Fitness/ physically active games	Health/ Mental Health/ Health Promotion/ Health Behaviour/
EMBASE	Poverty/ Vulnerable population/ Urban population/ Minority Group/	Adolescence/ Adolescent/ Young adult/ Juvenile/	Adolescent Development/	physical activity/ sport/ recreation/ exercise/ fitness/	Health/ Mental Health/ Health behaviour/ Health Promotion Psychological well-being/ Psychological development/

Web of Science	disadvantage* or depriv* or underserve* or "low socioeconomic" or "at-risk" or Urban or "low-income" or "Marginali*" or "hard-to-reach" or poverty or vulnerable or "out of school" or homeless* or disaffect* or "at risk of homelessness" or "high risk"	"young people" or "young adult*" or adolescen* or youth or teen*	"positive youth development" or PYD or "youth development*" or "life skill*" or "after school" or extracurricular	Sport* or "physical activity" or fitness or exercise or outdoor or "outdoor adventure education" or OAE or recreation or physically active games	"Mental Health" or "Physical* health*" or Social* or Psychol* or Psychosocial or Personal
Child and Adolescent Development	disadvantage* or depriv* or underserve* or "low socioeconomic" or "at-risk" or Urban or "low-income" or "Marginali*" or "hard-to-reach" or poverty or vulnerable or "out of school" or homeless* or disaffect* or "at risk of homelessness" or "high risk"	"young people" or "young adult*" or adolescen* or youth or teen*	"positive youth development" or PYD or "youth development*" or "life skill*" or "after school" or extracurricular	sport* or "physical activity" or fitness or exercise or outdoor or "outdoor adventure education" or OAE or recreation or physically active games	"Mental Health" or "Physical* health*" or Social* or Psychol* or Psychosocial or Personal
ERIC (EBSCO)	disadvantage* or depriv* or underserve* or "low socioeconomic" or "at-risk" or Urban or "low-income" or "Marginali*"	"young people" or "young adult*" or adolescen* or youth or teen*	"positive youth development" or PYD or "youth development*" or "life skill*" or "after	sport* or "physical activity" or fitness or exercise or outdoor or "outdoor adventure education"	"Mental Health" or "Physical* health*" or Social* or Psychol* or Psychosocial or Personal

	or "hard-to-reach" or poverty or vulnerable or "out of school" or homeless* or disaffect* or "at risk of homelessness" or "high risk"		school" or extracurricular	or OAE or recreation or physically active games	
ProQuest: Physical Education Index	disadvantage* or depriv* or underserve* or "low socioeconomic" or "at-risk" or Urban or "low-income" or "Marginali*" or "hard-to-reach" or poverty or vulnerable or "out of school" or homeless* or disaffect* or "at risk of homelessness" or "high risk"	"young people" or "young adult*" or adolescen* or youth or teen*	"positive youth development" or PYD or "youth development*" or "life skill*" or "after school" or extracurricular	sport* or "physical activity" or fitness or exercise or outdoor or "outdoor adventure education" or OAE or recreation or physically active games	"Mental Health" or "Physical* health*" or Social* or Psychol* or Psychosocial or Personal
SportDiscus	disadvantage* or depriv* or underserve* or "low socioeconomic" or "at-risk" or Urban or "low-income" or "Marginali*" or "hard-to-reach" or poverty or vulnerable or "out of school" or homeless* or disaffect* or "at risk of	"young people" or "young adult*" or adolescen* or youth or teen*	"positive youth development" or PYD or "youth development*" or "life skill*" or "after school" or extracurricular	sport* or "physical activity" or fitness or exercise or outdoor or "outdoor adventure education" or OAE or recreation or physically active games	"Mental Health" or "Physical* health*" or Social* or Psychol* or Psychosocial or Personal

	homelessness" or "high risk"				

Appendix C. Data extraction sheet

Systematic Review Data Extraction Sheet

Completed by:

Reference:

Author(s)	
Year	
Title	
Journal, volume, page numbers	
DOI	

Study Method:

Study design (e.g., RCT, quasi-experimental – see flow chart at bottom of sheet)	
Theoretical framework/model (e.g., Positive Youth Development, self-determination theory)	

Sample:

Country		
Total sample size		
Gender	Males =	Females =
Groups	Group A =	Group B =
	Group C =	Group D =
Age (M + SD)		
Definition of disadvantaged:		

Ethnicity:	
Other recorded demographic information?	

Intervention Characteristics:	
Programme leaders/instructors (e.g., teacher, peer mentor):	
Frequency of sessions:	
Duration of sessions:	
Length of intervention (e.g., weeks/months):	
Physical Activity Context: Sport-based, Physical Fitness, Outdoor Adventure Education or other? If other, please explain:	
Was the intervention personalised for individual participants? If yes, please explain:	
Was the intervention modified during the course of study? If yes, please explain:	
Structured curriculum (y/n):	
If structured, which one (e.g., GOAL, SUPER, Captain's Leadership Development Program; Rugby Advantage Program; Play It Smart, Girls Just Wanna have Fun; Girls on the Run):	

Activities included (e.g., golf, hiking, yoga):	372
Was there a Life Skill component? If so, how was it delivered (e.g., group discussions, reflections, workshops)	
What Life Skills or mental techniques were taught during programme? (e.g., goal-setting, emotional-awareness, job applications)	
What was the transfer environment? (e.g., education, employment or training)	
How was transfer measured? (e.g., questionnaire, interviews with stakeholders)	

PYD Features of Programme:

	Characteristic	Definition	Yes	No	Unable to determine
1.	Physical and psychological safety	Safe and health-promoting facilities; and practices that increase safe peer group interaction and decrease unsafe or confrontational peer interactions.			
2.	Appropriate structure	Limit setting; clear and consistent rules and expectations; firm-enough control; continuity and predictability; clear boundaries, and age-appropriate monitoring			
3.	Supporting relationships	Warmth; closeness; connectedness; good communication; caring; support; guidance; secure attachment; and responsiveness			
4.	Opportunities to belong	Opportunities for meaningful inclusion regardless of one's gender, ethnicity, sexual orientation, or disabilities; social inclusion, social engagement, and integration; opportunities for sociocultural identity formation; and support for cultural and bicultural competence.			
5.	Positive social norms	Rule of behaviour; expectations; injunctions; ways of doing things; values and morals; and obligations for service.			
6.	Support for efficacy and mattering	Youth-based; empowerment practices that support autonomy; making real difference in one's community; and being taken seriously. Practice that includes enabling, responsibility granting, and meaningful challenge. Practices that focus on improvement rather than on relative current performance levels.			
7.	Opportunities for skills building	Opportunities to learn physical, intellectual, psychological, emotional, and social skills; exposure to intentional learning experiences; opportunities to learn cultural literacies, media literacy, communication skills, and good habits of mind; preparation for adult empowerment; and opportunities to develop social and cultural capital.			
8.	Integration of family, school, and community efforts	Concordance; coordination; and synergy among family, school, and community.			

Health Outcomes measured:	
Details of findings to be included when reporting results: • The outcome measured (e.g., confidence, communication skills, physical activity) • Primary or secondary outcome (if not clear please note) • Tool used to collect data (e.g., name of questionnaire or scale) • Time of measurement (e.g., pre, post or follow-up) • Dichotomous (yes/no) or continuous (scale, ratio, interval) data? • Number of participants who made up data set (if not stated please note) • Statistical significance (if not stated please note) • Effect size (if not stated please note) • Mean ± SD (if not stated please note)	
Domain of Health (see Table 1 below for definitions)	**Details of findings reported**
Mental	
Social	
Physical/ biological	
Outcomes that reflect two or more dynamics of health	

Appendix D. Quality appraisal and risk of bias for included studies

Study design	High risk of bias (≥70% of criteria were unclear or not met)	Moderate risk of bias (31-69% of criteria were unclear or not met)	Low risk of bias (≤30% of criteria were unclear not met)
RCT		Frank et al., 2016 (66.7%) Robbins et al., 2019 (50%)	McMahon & Hanrahan, 2020 (23%)
Quasi-experimental		Barker et al., 2016 (66.7%) Barker & Forneris, 2011 (66.7%) Bowen & Neil, 2016 (44.5%) D'Andrea et al., 2013 (33.4%) Mala et al., 2020 (44.5%) McDavid et al., 2019 (44.5%) Ramadoss & Bose, 2012 (55.6%) Riley et al., 2017 (44.5%) Terry et al., 2014 (44.5%)	Hanrahan & Ramm, 2015 (22.2%)
Case series	Collingwood et al., 2000 (88.9%) Norton & Watt, 2014 (77.8%)	Anderson-Butcher et al., 2014 (44.5%) Bowers et al., 2019 (33.4%) Frazier et al., 2015 (44.5%) McDavid & McDonough, 2020 (33.4%) Peralta et al., 2016 (55.6%) Ullrich-French, 2012 (33.4%) Ullrich-French & McDonough, 2013 (33.4%)	Anderson-Butcher, 2018 (22.3%) Newman et al., 2020 (22.3%)

Articles' individual scores are provided in brackets

Appendix E. Overview of scores for included articles in critical appraisal tools

Randomised control trials critical appraisal criteria

Study	true randomization used for assignment of participants	allocation to treatment groups concealed	treatment groups similar at baseline	participants blind to treatment assignment	those delivering treatment blind to treatment assignment	assessors blind to treatment assignment	treatments groups treated identically other than the intervention	Was follow-up complete, and if not, were strategies to address incomplete follow-up	participants analysed in the groups to which they were randomized	outcomes measured in the same way for treatment groups	Outcomes measured in a reliable way	Was appropriate statistical analysis used?	trial design appropriate, and any deviations from the standard RCT design (individual randomization, parallel groups) accounted for in the conduct and
Frank et al., 2015	Unclear	Unclear	Yes	Unclear	No	N/A	Unclear	Yes	Yes	Unclear	Unclear	Yes	No
Robbins et al., 2019	Unclear	N/A	Yes	No	N/A	Unclear	No	No	Yes	Yes	Yes	Yes	No

Quasi-experimental study design critical appraisal criteria

	clear in the study what is the 'cause' and what is the 'effect'	*participants included in any comparisons similar*	*participants included in any comparisons receiving similar treatment/care*	*Was a control group included?*	*multiple measurements of the outcome/conditions both pre and post*	*follow-up complete, and if not, was follow-up adequately reported*	*outcomes of participants included in any comparisons measured in the same way?*	*outcomes measured in a reliable way*	*appropriate statistical analysis*
Barker & Forneris, 2011	Yes	Unclear	Unclear	No	No	No	Yes	Unclear	Yes
Barker et al., 2016	Yes	Unclear	Unclear	No	Yes	No	Yes	Unclear	No
Bowen & Neil, 2016	Yes	Unclear	Yes	No	Yes	No	Yes	Unclear	Yes
D'Andrea et al., 2013	Yes	Yes	Unclear	Yes	Unclear	No	Yes	Yes	Yes
Ramadoss & Boss, 2010	Yes	Yes	Unclear	Yes	No	No	Unclear	Unclear	Yes
Riley et al., 2017	Yes	Yes	Unclear	No	No	Yes	Yes	Unclear	Yes

Terry et al., 2014	Yes	Yes	Unclear	Yes	No	Unclear	Unclear	Yes	Yes
Mala et al., 2020	Yes	No	Unclear	Yes	Yes	No	Yes	Unclear	Yes
McDavid et al., 2019	Yes	Yes	Unclear	Yes	N/A	No	Yes	Unclear	Yes

Case-series study design critical appraisal criteria

	clear criteria for inclusion in the case series	*condition measured in a standard, valid & reliable way for all participants*	*valid methods used for identification of the condition for all participants*	*consecutive inclusion of participants*	*complete inclusion of participants*	*clear reporting of the demographics of the participants*	*Clinical population*	*outcomes or follow up results of cases clearly reported*	*clear reporting of the presenting site(s)/clinic(s) demographic information*	*appropriate statistical analysis*
Anderson-Bucther 2014	Yes	Unclear	Unclear	Yes	Unclear	Yes	N/A	Yes	No	Yes
Anderson-Butcher 2018	Yes	Yes	Unclear	Yes	No	Yes	N/A	Yes	Yes	Yes
Bowers et al., 2019	Yes	Yes	Yes	Unclear	Unclear	Yes	N/A	Yes	No	Yes
Collingwood et al., 2000	Yes	No	No	No	No	No	N/A	No	No	No

Frazier et al., 2015	Unclear	Yes	Yes	Unclear	Unclear	Yes	N/A	Yes	Yes	No
McDavid & McDonough 2020	Yes	Yes	Yes	Unclear	Unclear	Yes	N/A	Yes	No	Yes
Newman et al., 2020	Yes	Yes	Yes	Unclear	Yes	Yes	N/A	Yes	No	Yes
Norton & Watt, 2014	Yes	Unclear	Unclear	Unclear	No	Yes	N/A	No	Unclear	No
Peralta et al., 2016	Yes	Unclear	Unclear	Yes	No	Yes	N/A	No	No	Yes
Ullrich-French et al., 2012	Yes	Yes	Yes	No	No	Yes	N/A	Yes	No	Yes
Ullrich-French & McDonough, 2013	Yes	Yes	Yes	No	No	Yes	N/A	Yes	No	Yes

Appendix F. Logic Model of MST4Life

Target Population & Problem	Assumptions	Inputs	Activities	Outputs	Outcomes
Homeless young people, aged 16-24 years and living in "long-stay" supported accommodation: 1. High NEET rates 2. Multiple & complex support needs 3. Health and social inequalities	1. All young people have the capacity for growth and personal development. 2. NEET homeless young people will be willing to engage with both phases of MST4Life™ and its evaluation.	**Programme** 1. Relationships with caring adults that support young people's basic psychological needs for relatedness, competence, and autonomy. 2. Challenging activities that are meaningful and fun. 3. Opportunities to recognise, use and develop strengths and mental skills. **Resources** 1. Programme materials 2. Facilities to deliver location	**Pre-programme** (Programme facilitators and Housing Service staff) 1. Recruitment activities 2. Meeting with staff and residents of accommodation site **During programme** (Programme Facilitators) 1. 10 community-based sessions 2. 4 day/3 night outdoor adventure residential **Post-programme** (Housing Service staff) 1. Reflection and transfer of mental	1. Attendance and engagement in sessions by young people 2. # of young people who have completed the programme 3. # of young people take up EET opportunities during/after completing programme 4. # of staff trained to deliver the programme 5. Dissemination of research findings to academic and non-academic audiences (presentations, symposiums, reports, journal articles, etc.)	**Short-term** • Increased strengths and intentional self-regulation (e.g., self-reflection, set positive goals, plan strategies for goal achievement) • Gain personal and interpersonal mental skills • Improved well-being and positive qualities (e.g., self-worth, resilience) • Sustained accommodation with Housing Service • Reduction in risk behaviours **Intermediate** • Positive transition from supported

		3. Community sites and outdoor adventure centre 4. Funds to cover costs of transportation and food	skills to other settings 2. Supported to engage in education, employment and training opportunities		accommodation to independent living (e.g., tenancy in rented flat) • Engagement with EET **Long-term** • Reduced likelihood of re-presenting as homeless • Improved mental, social, and physical health • Lower rates of mental illness and mortality

Appendix G. Information and consent form for young people (also used in Chapter 5)

My Strengths Training for St Basils

Information Sheet

Why are we asking you to read this?
As well as you taking part in the programme, we want to evaluate the MST4Life™ programme to understand:

- What you thought about it
- Whether it was helpful to you
- If you have any suggestions for how it could be improved

You don't have to give consent to the evaluation to take part in MST4Life™, but feel free to ask any questions about our work.

If I agree to the take part in the evaluation, what could it involve?

It's up to you how much you want to take part in the evaluation, but here's what it might involve:

- **Questionnaire** – You complete this at the start and end of the programme to see how you're getting on (e.g., well-being, views in the programme), and provide some basic details about yourself (e.g. age, gender)
- **Diary room** – Privately share your thoughts about what you've learned on the programme
- **Session materials** - Data from some of the activities that you complete might be used for reports, but they will be confidential

- **Follow-up session** – After the residential, you will be invited for a catch-up session where there will be the opportunity to complete a final questionnaire and participate in a focus group, which may be recorded if everyone agrees. It's also possible for you to provide written feedback
- **St Basils records –** We would like to access your record kept by St Basils to know more about your participation in education, training and employment opportunities, how long you've been supported by St Basils, and when you move on, the reasons for this.

All the data collected through these methods are confidential, as required by General Data Protection Regulation Act (2018). That means that only people on the MST4Life research team will have access to the data.
Raw and processed data will be kept for ten years following completion of the programme. Consent forms and computer files containing processed data will be kept securely in a locked filing cabinet and will only be accessed by the study investigators. After this period, all data collected (including video and audio files) will be destroyed.

If you tell us anything which indicates that someone's health and safety is at risk, including your own, we may have to share this information. If this happens, we would first have a conversation with you.

Who do I speak to if I have any concerns?

If you feel like you need support at any point during the programme, your support workers should be your first option. If you need additional support, they will help you get this.

Even after reading this information sheet and signing the consent form, you can withdraw from the evaluation, without explanation or consequence, up until 2 weeks after the programme has been completed (end of the residential).

We will get rid of your data and it won't be included in our research. If you choose to withdraw please either tell one of the MST4Life™ facilitators, contact Dr Jennifer Cumming, the Project Director of MST4Life™ programme (contact details provided below), or your support worker.

What will happen to the results of the research?
- Aim to help further improve the delivery of MST4Life.
- Results (if consent is provided), may be used for scientific purposes, including publication in scientific journals, but your name would not be included anywhere.
- Brief summary presenting the results and findings will be given to St Basils to distribute to participants at the end of the study.

Further Information and contact details

Dr Jennifer Cumming

School of Sport, Exercise, and Rehabilitation Sciences, University of Birmingham, B15 2TT

My Strengths Training for St Basils
Consent Form

The following information regarding your birthdate and number siblings will be used to form a unique and easy to remember study ID code for you.

Your Study ID Code:

**** (VERY IMPORTANT) ****
Your date of birth: _____ / _____ / _____   Your number of siblings: _____
                      D   M   Y   #

Tick to consent

I confirm that I have read and understand the information sheet, and have had the opportunity to ask questions to my satisfaction. ☐

I understand that my participation is voluntary and that I can choose not to answer a question and am free to withdraw at any time until 2 weeks after MST without giving any reason or my rights being affected. ☐

I give consent for the data that I provide to be used for research purposes (e.g., my attendance, questionnaires, basic information about me). ☐

I give consent for the researchers to access my St Basils records for research purposes (e.g., the length of time I live at St Basils and the reasons I move on). ☐

I give consent for researchers to discuss my progress, development and/or well-being during and/or after the programme with St Basil's staff. ☐

Photo, audio and video consent

I give consent for the researchers to use and take a photo of the materials I produce, for it to be analysed, and understand that these photos will be kept securely and may be used in future reports/publications as long as my confidentiality is maintained. ☐

I give consent to take part in a written, audio, or video recorded *diary room and/or focus group* and for it to be analysed, and I understand that these recordings will be kept securely. ☐

I give consent for photos and videos to be taken of me during the activities (e.g. at Cake Sale, Coniston) and understand they might be used on MST social media platforms (e.g. Twitter, private groups on Facebook, our project website) ☐

I agree to take part in the above study. ☐

_____   _____   _____

First and Surname   **Date**   **Signature**

Appendix H. Information sheet and consent form for St Basils staff and OAE instructors

<div align="center">

Mental Skills Training for Life
Participant Information Sheet – St Basils Staff and OAE instructors

</div>

We would like to invite you to take part in a study evaluating the effectiveness of the Mental Skills Training for Life programme, which has been developed to support young people's aspirations for accessing education and employment opportunities. Often used to help athletes improve their competitive performance, a typical programme educates recipients about the use of different mental skills (e.g., effective goal setting) to help them to realise their individual potential and develop well-being.

What is the purpose of our work?
The aim of the study is to evaluate Mental Skills Training for Life programme received by young people supported by St Basils. Specifically, we want to understand your views about the programme and its impact on who received it. We hope that the results will inform us about the effectiveness of mental skills training for young people and any needed improvements.

Why have I been invited and do I have to take part?
We are inviting you to participate because of your in working with young people who are taking part in the programme. After reading this in sheet, you can ask any questions about our work. If you agree to take part, we would like you to complete the consent form. It is not compulsory to take part.

What will I have to do?
If you agree to volunteer for our research, you will be invited to give your views on the Mental Skills Training for Life programme and its impact on the young people supported by St Basils.

During the programme, you may be invited to participate in a one-to-one interview with a researcher from the Mental Skills Training for Life team. This interview would take approximately 1 hour of your time and would be audio-recorded so that we can refer to it when we analyse the information and we, the researchers will only ever hear this recording. During this interview we may discuss with you how some of the young people have responded to taking part in the MST4Life to further our evaluation of the programme. When discussing a young person, we ask you only share as much information as you are comfortable with; we understand the importance of trust and confidentiality between yourselves and the young people you work with.

You will also have an opportunity to discuss the Mental Skills Training for Life programme by making diary entries. A diary room is provided where you can privately share your thoughts about what you have learned from the programme. We will provide you with some prompt cards to give some ideas of what you might like to discuss, but it is your opportunity to tell us what you think. Different recording options are available to you. A camera will be set up in the room to record your diary entry. It will be secured in such a way that all you will need to do is hit record to start your entry, and stop to finish. No other participants of this research will have access to "rewind" or "play", and will be unable to view any entries you make. If you prefer, you can choose to be audio-recorded or to write your responses down to the diary room questions. Your diary entries will only ever be seen by us, the researchers. A diary room entry can be as short or as long as you like, but typically takes no longer than 10 minutes of your time.

Finally, you will be invited to participate in a group discussion with other staff from St Basils at the end of the Mental Skills Training for Life programme, which will take approximately 1 hour of your time. During the discussion we will explore your thoughts about the programme. This discussion will also be audio recorded with your explicit permission. If you choose not to participate in the focus group, you can also provide us with written feedback on the programme using an online questionnaire, which would take no longer than 20 minutes of your time.

How will my confidentiality be protected?
The Mental Skills Training for Life programme and its evaluation will operate under St Basils Confidentiality and Data Protection Policies. Anything you tell us will be in confidence and not share with anyone else without your consent. There is an exception to this rule, however, if you tell us anything which indicates that someone's health and safety is at risk, including your own, we may have to share this information. If this happens, we will keep you informed of any actions we are taking. St Basils' confidentiality policy is available to you on request.

Can I withdraw once we have has started?
You may withdraw at any time, without any explanation or consequence. If you choose to withdraw, please contact Dr Jennifer Cumming (contact details provided below). The deadline for withdrawing is two weeks after the group discussion has been completed *(Date to be inserted here)*. If you choose to withdraw, your data will be destroyed and not included.

What will happen to the results of the research?
The results of this investigation aim to help further enhance the delivery of the Mental Skills Training for Life programme. Also, by participating in this research, you are agreeing that your contributions may be used for scientific purposes, including publication in scientific journals, so long as your anonymity is maintained. A brief summary presenting the results and findings will be given to St Basils to distribute to participants at the end of the study. There are no known risks associated with participation in this research.

In accordance with the Data Protection Act (1998) raw and processed data from this investigation will be kept for ten years following completion of the study. Consent forms and computer files containing processed data will be kept securely in a locked filing cabinet and will only be accessed by the study investigators. After this period, all the data collected (including video and audio files) will be destroyed.

Further information and contact details
Dr Jennifer Cumming

Mental Skills Training for St Basils
Participant Consent Form – St Basils Staff

The following information regarding your birthdate and number siblings will be used to form a unique and easy to remember study ID code for you.

Your Study ID Code:

| **** (VERY IMPORTANT) **** |
| Your date of birth: ____ / ____ / ____   Your number of siblings: _____ |
| D   M   Y   # |

Tick to consent

I confirm that I have read and understand the information sheet, and have had the opportunity to ask questions to my satisfaction. ☐

I understand that my participation is voluntary and that I am free to withdraw at any time before the deadline described on the information sheet without giving any reason or my rights being affected. ☐

I understand that I can choose not to answer a question if I wish without giving any reason or my rights being affected. ☐

I give consent for the data that I provide to be used for research purposes ☐

I understand that the ***one-to-one interview*** will be audio recorded in order to be analysed, and that these recordings will be kept securely. ☐

I give consent for me to be either video or audio recorded during the ***diary room*** to be analysed, and I understand that these recordings will be kept securely. ☐

I understand that the ***group interview*** will be audio recorded in order to be analysed, and that these recordings will be kept securely. ☐

I give consent for to be audio recorded during the ***group interview***. ☐

I agree to take part in the above study. ☐

_____   _____   _____

Name of Participant   **Date**   **Signature**

Appendix I. Semi-structured staff interview protocol for data collection during Phase 1 and at follow-up

Semi-structured interview protocol for data collection during Phase 1

**Mental Skills Training for St Basils
Initial Interview, Topic Guide – St Basils Staff**

Date: _____

Project: _____

Time Began: _____   Time Ended: _____

Interviewer: _____   Interviewee: _____

Young People Discussed:

    1._____

    2._____

    3._____

    4._____

Section 1: Welcome (not recorded)
Thank you for volunteering to participate in this discussion. The aim of this initial discussion is gather your views and opinions regarding how the young people you see on a regular basis, have responded to the MST for Life programme following its conclusion. What you discuss here today will be very helpful for our research project in this area, and after today's session you are welcome to ask questions about the research we are doing and today's discussion.

The idea of this discussion is to allow you to share your views in a relaxed and informal environment. There are no right or wrong answers, instead any information from you about the young people will help us better understand and develop a greater overall understanding of them from a different perspective. All points of view, both positive and negative comments, are important. Of course, what to say, how to say it, and how much you want to say is up to you. You should not worry about what you are expected to say or whether you are on the right track.

So that I do not miss any of your comments, I would like to audio record our discussion. I have asked your permission to do this, as it will make our research work much easier. I should point out that your contribution will be kept confidential, and that any published research will contain changed names. The notes I is take are to help us get a thorough understanding of the discussion and to make sure nothing is missed. Be assured they are not making any evaluation of you as an individual.

Our discussion will last no more one hour. During this time, I would like to explore a number of aspects around the young person/people. It would be better if you kept your questions about this research project until the end, but please feel free to ask questions relating to the topic throughout the discussion.

Finally before we get started, I would like to encourage you to speak freely as your insight is very important and additionally maintain confidentiality after the discussion to ensure what has been said does not influence the young people/person in anyway.

Section 2: Opening questions (recorder turned on)
1. For the purposes of recording, could you just introduce yourself and explain your role at St Basils.
    a. Probe: How long have you worked at St Basils?
    b. Probe: What was your background/ experiences that led you to work with young people?
    c. Probe: What is your relationship with the young person/ people we're discussing today?

Section 3: Main questions

1. What were the main reasons the young person/ people were put forward for the MST4Life™ programme?
    a. Probe: What are the main areas the young person/ people could improve upon during the programme?
    b. Probe: What were the specific aspects of the programme that you that might help the young person build upon their strengths?

2. When describing this young person/ people, what, if any, characteristics stand out as their mental strengths or skills?
    a. Probe: Elaborate on possible mental strengths/skills with the use of a research-based word map based on findings from previous MST4Life™ participants (have this to hand and show staff member if required).
    b. If needed, define what is meant by mental skills/ strengths (e.g., mental attributes or qualities that help young people cope and thrive in their daily live, such as, confidence, communication, teamwork, motivation, resilience).
    c. In what ways has the young person/ people displayed these mental skills? Do you have any specific examples?
    d. Probe: to what extent, if at all, do you think the young person/ people are aware of these mental strengths/ skills?

3. In your opinion, how does the young person/ people respond to stressful situations?
    a. Probe: Expand upon what is a stressful situation for the young person? (e.g. change, social interaction, large groups, day to day lives, bigger issues).
    b. Probe: Expand upon how they respond to these situations, do they show mostly positive or negative coping mechanisms?

389

      c.   Probe: In what ways do you feel their ability, or inability, to cope with stressful situations may be impacting upon their day to day life?

      d.   Probe: How do you feel their involvement in the MST may have enhanced their ability to cope with stressful situations? (e.g., confidence building, communication skills, enhanced resilience, establishing a support network)

4. From your point of view, to what extent has the young person/ people shown signs of positive engagement with services offered by St Basils or external providers?

      a.   Probe: How is engagement determined by St Basils? (e.g., use of the RAG rating, outcome star – ask staff member to expand, if required, and how they apply to the young person/ people being discussed)

      b.   Probe: Does the young person/ people show any differences with engagement in informal vs formal arrangements (e.g., showing up to appointments, following through with commitments, applying for accommodation, engagement in EET opportunities)

      c.   If EET – how long for and what are they currently engaged with?

      d.   If NEET – have they been previously EET? If so, what led to changes in their status? Can you think of any barriers that prevent them from engaging in EET opportunities?

      e.   Probe: How do you feel the young person/ people's engagement in MST might impact their EET status?

5. In what ways do you feel taking part in the MST4Life™ programme has impacted upon the young person's healthy lifestyle choices?

      a.   Probe: What, if any, examples can you give of their current lifestyle? (e.g. exercise routine, daily lifestyle habits, walking as a means of transport, sedentary levels during the day)

      b.   Probe: How often do you see them out of the accommodation and generally out doing things?

      c.   Probe: What, if any, barriers might prevent them from being physically active or living a healthy lifestyle?

      d.   Probe: Can you think of any unhealthy lifestyle habits they have? And how, if at all, has their engagement in MST4Life™ changed these behaviours at all?

Section 4: Ending Questions

I'll provide a summary of the points raised and then reflects on the discussions that emerged. Also, I will reiterate the aims of the focus group,

Finally ask,

- Is there anything we have missed?
- Would you like to raise anything else at this point?

Section 5: Closing

I would like to thank you for participating in today's discussion and remind you that any comments that you made here today will remain confidential and for research purposes only. I would also like to ask you help us out by keeping any thoughts and opinions expressed here today by the other participants as confidential.

Appendix J. *Semi-structured interview protocol for follow-up data collection with staff*

Mental Skills Training for Life
Follow-up interview, Topic Guide – St Basils Staff

Date: _____

Project: _____

Time Began: _____   Time Ended: _____

Interviewer: _____   Interviewee: _____

Young People Discussed:

      1._____

      2._____

      3._____

      4._____

Section 1: Welcome (not recorded)

Thank you for volunteering to participate in this discussion. The aim of this initial discussion is gather your views and opinions regarding how the young people you see on a regular basis, have responded to the MST for Life programme following its conclusion. What you discuss here today will be very helpful for our research project in this area, and after today's session you are welcome to ask questions about the research we are doing and today's discussion.

The idea of this discussion is to allow you to share your views in a relaxed and informal environment. There are no right or wrong answers, instead any information from you about the young people will help us better understand and develop a greater overall understanding of them from a different perspective. All points of view, both positive and negative comments, are important. Of course, what to say, how to say it, and how much you want to say is up to you. You should not worry about what you are expected to say or whether you are on the right track.

So that I do not miss any of your comments, I would like to audio record our discussion. I have asked your permission to do this, as it will make our research work much easier. I should point out that your contribution will be kept confidential, and that any published research will contain changed names. The notes I is take are to help us get a thorough understanding of the discussion and to make sure nothing is missed. Be assured they are not making any evaluation of you as an individual.

Our discussion will last no more one hour. During this time, I would like to explore a number of

aspects around the young person/people. It would be better if you kept your questions about this research project until the end, but please feel free to ask questions relating to the topic throughout the discussion.

Finally before we get started, I would like to encourage you to speak freely as your insight is very important and additionally maintain confidentiality after the discussion to ensure what has been said does not influence the young people/person in anyway.

Section 2: Opening questions (recorder turned on)
2. For the purposes of recording, could you just introduce yourself and explain your role at St Basils.
    d. Probe: Has there been any changes in your role within St Basil's since we last spoke/end of MST?
    e. Probe: Are you still in close contact with the young people that we are discussing today? (e.g. Support worker or LSW officer for their project?
    f. Probe: Have you noticed any changes within yourself since the MST? If yes, how do you feel the MST has influenced these changes?

Section 3: Main questions

6. In your opinion how do you feel the young person benefitted from taking part in the MST for Life programme?
    a. Could you perhaps give some examples? (e.g., progression on existing mental skills or development of new ones, social skills, positive use of time, enjoyment)
    b. What elements of the programme do you feel facilitated these benefits for the young person? (e.g., sessions in particular, the nature or environment of the sessions, the trip to Coniston and their time there, social components of the programme, new experiences)
    c. Has the young person been able to transfer what they learned in the programme to other environments? Please give an example.

7. Since the conclusion of the programme what changes, in any, have you noticed in the young person's life or circumstances?
    a. Probe: What is the young person's current housing situation? (e.g. are they still living with in St Basil's accommodation, have they obtained their own independent accommodation or are they continuing to maintain their tenancy)
    b. Probe: What changes, if any, has the young person made in their Education, Employment or Training status?
    c. Probe: What potential barriers has the young person faced in life since the MST and how have they responded to these barriers? In what ways do you feel MST has influenced their response to these barriers?
    d. Probe: In what ways to you feel MST has helped the young person make these changes in their life? (e.g. housing or EET status)

8. What, if any, changes have the young person made in their approach to dealing with stressful situations, since taking part in the MST programme?
    e. Probe: Expand upon what is a possible stressful situation for the young person? (e.g. change, social interaction, large groups, day to day lives, bigger issues).
    f. Probe: What changes have you noticed in the way they respond to these stressful situations since taking part in the MST?
    g. Probe: In what ways do you feel their ability, or inability, to cope with stressful situations may be impacting upon their day to day life?
    h. Probe: How do you feel their involvement in the MST may have enhanced their ability to cope with stressful situations? (e.g., confidence building, communication skills, enhanced resilience, establishing a support network)
    i. Probe: In your opinion, what particular aspects of the MST programme helped benefit the young person's coping strategies and/or how they respond to stressful situations?

9. Having taken part in the MST, what changes have you noticed in the young person's engagement, either with yourself as their key worker, with the project or away from St. Basil's?
    a. Probe: Engagement with you: Showing up for meetings, communicating effectively and frequently with you, being easy to get hold of, being open and informative about important issues.
    b. Probe: Engagement within project: Their interaction with other young people with the project, respecting the rules of the projects, being mindful of others within the project, attending other St Basil's ran workshops, organising social events with other residents.
    c. Probe: Engagement away from St Basil's: Their work-life balance, are often up and about, positive use of time, are they in education, employment or training, maintain good relations with their landlord.
    d. Probe: Finally, how do you feel their involvement in the MST programme may have facilitated positive change in the young person's engagement in the areas we have discussed? Are there are particular aspects of the programme you thought encouraged the young person to be more engaged in these areas?

10. In what ways do you feel taking part in the MST programme has impacted upon the young person's healthy lifestyle choices?
    e. Probe: What changes have you noticed in their physical activity levels? (e.g. exercise routine, daily lifestyle habits -waking more often- or even mind-set about physical activity and exercise, generally less sedentary during the day)
    f. Probe: Have you noticed any changes in their dietary habits? (e.g. less fast food, eating more healthy food, cooking for themselves, eating during the day or more structured eating habits)
    g. Probe: Did the young person smoke before MST, if so, how has their smoking habit changed since taking part in the MST?
    h. Probe: In what ways do you feel the MST has impacted upon the lifestyle of the young person? Were there any particular aspects of the programme you felt

encouraged the young person to live a healthier lifestyle?

Section 4: Ending Questions

I'll provide a summary of the points raised and then reflects on the discussions that emerged. Also, I will reiterate the aims of the focus group,

Finally ask,

- Is there anything we have missed?
- Would you like to raise anything else at this point?

Section 5: Closing

I would like to thank you for participating in today's discussion and remind you that any comments that you made here today will remain confidential and for research purposes only. I would also like to ask you help us out by keeping any thoughts and opinions expressed here today by the other participants as confidential.

Appendix K. Focus group protocol for follow-up data collection with OAE instructors

Raymond Priestly Centre staff interview protocol for use following residential trip to Coniston as part of the MST programme

Mental Skills Training for St Basils
Initial Interview, Topic Guide – Raymond Priestly Centre Staff

Date: _____

Project: _____

Time Began: _____   Time Ended: _____

Interviewer: _____   Interviewees: _____

_____

_____

Section 1: Welcome (not recorded)
Thank you for volunteering to participate in this discussion. The aim of this initial discussion is gather your insights into some of the young people prior to their involvement in the MST for Life programme. What you discuss here today will be very helpful for our research project in this area, and after today's session you are welcome to ask questions about the research we are doing and today's discussion.

The idea of this discussion is to gather an alternative perspective on the recent group of young people to have taken part in the Mental Skills Training for Life (MST4Life) programme. The visit to the Raymond Priestley Centre (RPC) is an integral part of the programme which offers an opportunity for the young to be challenged in a new environment. As instructors at the centre, we feel your insight into the young people's time there can offer a different perspective on their development as a result of taking part in the MST4Life programme. To this end, we would appreciate your truthful and honest opinions with regards to the recent group of young people who visited the PRC; in order to so, we would like to offer this interview to you as opportunity to share your views in a relaxed and informal environment. There are no right or wrong answers, instead any information from you about the young people will help us better understand and develop a greater overall understanding of them from a different perspective. All points of view, both positive and negative comments, are important. Of course, what to say, how to say it, and how much you want to say is up to you. You should not worry about what you are expected to say or whether you are on the right track.

So that I do not miss any of your comments, I would like to audio record our discussion. I have asked your permission to do this, as it will make our research work much easier. I should point out that your contribution will be kept confidential, and that any published research will contain changed names. The notes I is take are to help us get a thorough understanding of the discussion and to make sure nothing is missed. Be assured they are not making any evaluation of you as an individual.

Our discussion will last no more one hour. During this time, I would like to explore a number of aspects around the young person/people. It would be better if you kept your questions about this research project until the end, but please feel free to ask questions relating to the topic throughout the discussion.

Finally before we get started, I would like to encourage you to speak freely as your insight is very important and additionally maintain confidentiality after the discussion to ensure what has been said does not influence the young people/person in anyway.

Section 2: Opening questions (recorder turned on)
3. For the purposes of recording, could you just introduce yourself and explain your role at the Centre and your previous experience or working with the MST4life programme.
    g. Probe: How long have you worked for the Centre?
    h. Probe: How many MST4life residential trips have you been involved with?
    i. Probe: What is your experience of working with young people either in general or young people from a disadvantaged background?

Section 3: Main questions

11. What were your general impressions about the MST4Life visit to the Centre?
    a. Probe: Can you expand upon some of the positives and/or negatives of the visit?
    b. Probe: Positive – Were there any moments that stood out to you as being a highlights of the trip, either for an individual or for the group as a whole?
    c. Probe: Negative – What do you think we could do to improve this for future groups?
    d. Probe: How did this current group of young people on the trip compare to previous groups of young people who have attended the RPC through the MST?

12. In what ways does the MST4Life programme help prepare the young people for their experiences at the RPC?
    a. Probe: For example, the challenges of a new environment, the physical and mental challenges of the tasks, the challenge of working outside of their comfort zone, respecting the rules of the RPC or the challenge of working with others.
    b. Probe: Can you give any examples of when the young people seemed more or less prepared for a particular challenge in the most recent trip?
    c. Probe: Can you think of any particular aspects of the MST programme that help prepare the young people for the trip to Coniston and the RPC centre?

13. What mental skills do you think young people develop during their visit to the RPC?

a. Probe: Elaborate on possible mental skills/strengths with the use of research-based mind map from previous St. Basils young people that have taken part in MST (have this tool to hand and talk it through with RPC if needed). Clarify that mental skills can also include social skills, physical skills and life skills.

b. Probe: If needed define mental skills (e.g. By mental skills we mean trainable mental attributes or abilities that help people cope and thrive in their daily lives, such as: confidence, teamwork, communication, resilience, motivation, concentration).

c. Probe: In what ways did any of the young people display these mental strengths/skills during their time at the RPC? Do you have any specific examples?

d. Probe: How does the PRC present opportunities for the young people practice and/or develop their mental skills or strengths during the visit? Can you give any specific examples?

14. From your point of view, what changes did you notice in the young people during their visit to the RPC?

a. Probe: Changes in attitude: Towards you as staff, in their approach to the activities, respect for the centre and/or others, having fun.

b. Probe: Changes in behaviour: Taking part in activities, taking on physical challenges, behaviour towards other YP and/or staff, e.g. teamwork or helping others.

c. Probe: Changes in engagement: Punctuality to meetings, engaging with you as staff in conversation or helping out, engagement during the sessions, being inquisitive or interested.

d. Probe: What particular aspects of the MST4life programme, the 10-week course and/or the 4-day visit to the PRC, contributed to these changes?

e. Probe (throughout): Can you give any specific examples from the recent visit to the RPC.

Section 4: Ending Questions

I'll provide a summary of the points raised and then reflects on the discussions that emerged. Also, I will reiterate the aims of the focus group,

Finally ask,

• Is there anything we have missed?
• Would you like to raise anything else at this point?

Section 5: Closing

I would like to thank you for participating in today's discussion and remind you that any comments that you made here today will remain confidential and for research purposes only. I would also like to ask you help us out by keeping any thoughts and opinions expressed here today by the other participants as confidential.

Appendix L. List of all diary room questions used for data collection when evaluating MST4Life™ (Chapter 4)

Phase 1 timepoint 1 (first three MST4Life™ workshops)

Q1: What's one thing you do most days because you really want to do it? (For example, this could be a hobby, sport, job, music, art, caring for pets, family or friends, cooking, fashion etc.)

Q2: What are some of the difficulties you run into in keeping up this activity?

Q3: How do you overcome these difficulties and keep going with the activity?

Q4: What are your top three strengths and how could you use them in different parts of your life?

Q5: What were your reasons for getting involved in this programme?

Q6: What did you expect this programme to be about?

Q7: What did you hope to get out of attending this programme?

Q8: What are your thoughts about the programme so far?

Phase 1 timepoint 3 (last three MST4Life™ workshops)

Q1: What have you found most challenging during this programme?

Bringing in customers for the cake sale

Q1 follow up: Did you manage to overcome this challenge? How?

Q2: What has been your greatest achievement during the programme so far?

Q3: Have you discovered any new strengths in yourself through taking part in this programme? Please explain...

Q4: What are your views on the style and approach of the people who delivered this programme?

Q5: Would you recommend this programme to other young people at St Basils?

If 'YES' – why would you recommend this programme?

If 'NO' - why wouldn't you recommend this programme?

Q6: Do you think your day-to-day life will have improved in anyway as a result of attending this programme?

If 'YES' – what improvements to you expect to see?

If 'NO' – why don't you think there will be any improvements?

Q7: Are there any improvements we could make to the programme?

Q8: What advice would you give other young people who want to take part and succeed in this programme?

Phase 2, day 2

Q1. What has been your highlight of the second day on this outdoor adventure course?

Q2. What challenges have you faced so far and have you managed to overcome these challenges? If so, how?

Q3. Can you give an example of how you used a mental strength today and how did this impact upon your behaviour?

Q4. How do you feel about the next two days on this outdoor adventure course?

Q5. What goal do you have for the next few days and how do you plan to achieve it?

Phase 2, day 3

Q1. Have you learnt anything about yourself during the past few days? If so, what?

Q2. Have any of the skills you developed during the Mental Skills Training course [Phase 1 of the programme] helped you in the past few days? Please explain…

Q3. Have you noticed any changes in the way you face challenges and/or control your emotions? Please explain…

Q4. Do you have any ideas for how we could improve the course for future young people at St Basils?

Phase 2, day 4

Q1. What have been your most memorable experiences of the outdoor adventure course so far?

Q2. Are there any parts of the outdoor adventure course that your found particularly challenging?

Q3. Can you think of any mental skills or strengths that have helped you during you time here at the outdoor adventure course?

Q4. Is there any additional information we could have given you before you came that would have helped you prepare for this course?

Q5. Will you do anything differently back home after having completed this outdoor adventure course? Please explain…

Appendix M. List of all diary room questions used for data collection during the OAE component

Reaction

Q1. How have you found the outdoor adventure course so far?

Q2. What do you think of the staff and accommodation facilities here at the centre?

Q3. What have been your best and worst experiences so far?

Q4. What have been your most memorable experience of the outdoor adventure course so far?

Q5. Are there any parts of the course that you found particularly challenging?

Q6. How would you describe the support network you've had around you during this trip?

Q7. How do you feel about the next two days on this outdoor adventure course?

Learning

Q1. Have you learned anything over the last two days, if so, what?

Q2. Have you noticed any changes in your emotions and the way you manage your emotions whilst on the trip?

Q3. To what extent have you experiences during the MST4Life programme changed the way you view yourself?

Q4. On a scale of 1 to 10 (1 not at all, 10 very important) how important is it to you to live a healthier lifestyle?

Q5. From your experience this weekend, what potential benefits do you feel the outdoors could have on people's health?

Behaviour

Q1. Have you noticed any changes in the way you face challenges and/or control your emotions?

Q2. What, if any, social skills have you used or developed whilst taking part in the programme?

Q3. Have any of the skills you developed during [Phase 1 of MST4Life™] helped in the past few days?

Q4. During your time here in the outdoors, what, if any, mental strengths have you used and please explain?

Q5. In what ways, if any, has taking part in the programme changed the way you view giving or receiving support from others?

Results

Q1. Will you do anything differently when you return home after having completed this course?

Q2. What changes, if any, would you like to make to your general day to day lifestyle habits back home since taking the experience in the outdoors?

Q3. From your experience this weekend, what potential benefits do you feel the outdoors could have on people's health? Please explain your answer…