

# **UNDERSTANDING STREET GANG MEMBERSHIP**

**By**

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A thesis submitted to the Centre for Forensic and Criminological Psychology for the  
degree of Doctorate in Forensic Psychology Practice (ForenPsyD) School of

Psychology

University of Birmingham

February 2018

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## **Acknowledgements**

Firstly I would like to express my gratitude to my academic supervisor, Dr Zoe Stephenson for all her time and effort in making sure I continued to stay on track. You have been supportive at every stage of the research process, providing prompt critical advice, guidance, patience and encouragement. A further thank you goes to Daz Bishopp for sharing your knowledge and expertise in all things statistical.

Secondly, I would like to thank both prison sites for allowing the research to take place and to all of the staff who assisted in the implementation of the research. A particular thank you is also given to Glenda Liell for her support, advice and encouragement. I am also grateful to the men involved in the study; giving up your time and offering to share your life stories offered a unique opportunity to understand more about gang membership.

To my Mum and Dad, I could probably write a thesis on the many ways you have supported and helped me. Thank you for encouraging me to enrol and believing in me that I had the ability to achieve this. Your continuous support kept me going with phone-calls, texts, and visits and telling me not to lose focus as “I am nearly there” as well as the arduous task of offering your time to proof read. A special mention should also go to my friends for checking in with me to make sure I did not go insane. Listening to my complaints and always helping to recharge my batteries with food, drink and dancing.

Lastly, I would like to thank my partner, Peter, your kindness, enthusiasm, sense of humour as well as your patience to tolerate my fluctuating moods has helped carry me through. Your tea making duties are now officially over. Whoop Whoop!

## **Abstract**

This thesis focused on contributing to the knowledge base regarding the psychology of street gang membership. Over the last thirty years, academics have focused attention on the ambiguity surrounding what constitutes a gang as well as identifying the engagement factors as to why individuals join a street gang. Whilst the rehabilitation of street gang offenders and understanding the reasons to desist from this lifestyle is paramount to counteract the effects of gang membership, less attention has been given to these areas, particularly within the United Kingdom (UK). This is vital given the impact maintaining this lifestyle has, not only on the individuals involved, but also on society as a whole.

The first chapter provides an introduction to the thesis and discusses some of the definitional issues that have arisen from exploring gang phenomena. A historical account of the theories that underpin gang membership are also discussed as well as the aims of the thesis. The second chapter introduces the first systematic literature review to have been undertaken on gang disengagement in order to understand the factors which increase the likelihood that an individual will leave a gang. This review highlighted that there is not one definitive reason as to why individuals choose to leave and a range of factors are detailed, which in combination, promote disengagement. Limitations of the review included the variance in the studies; the types of street gang samples and the existence of only one UK study.

An empirical project is presented in Chapter 3. A mixed methods approach was applied with the first study focusing on the impact two generalised violent offender behaviour programmes (RESOLVE and Self Change Programme; SCP) had on both adult violent gang and adult violent non-gang offenders. Findings suggested that both

sets of RESOLVE participants were found to have made treatment gains for impulsivity, anger and aggression, and treatment readiness. A statistically significant difference was observed for vengeful thinking, with gang participants showing a greater change in scores. SCP data showed statistically significant differences post treatment with lower levels of impulsivity, anger, vengeful thinking and beliefs supportive of aggression and an increase in treatment readiness. For non-gang participants, statistically significant differences were found post treatment for impulsivity and aggression. No significant interaction was observed between offender typologies, suggesting that the two groups have similar presentations. The second study explored the views of gang members who had completed either of the programmes mentioned in order to gain further insight into gang membership. Three major themes emerged which centred on what a street gang is; motivators to join; and motivators to disengage. These themes were further sub-divided and provided support for the literature reviewed in Chapters 1 and 2. The results are discussed with reference to current practice, the limitations, and recommendations for further research.

Chapter 4 presents a critical analysis of the Psychological Inventory for Criminal Thinking Styles (PICTS, Walters, 1990) which is a self-report measure focusing on the criminal thought process of an offender. Although the PICTS continues to be used for research purposes and within forensic practice, the review found that caution should be exercised in its use and that preferably it should be used in conjunction with other measures. This was partially due to the need for further independent research being needed across different cultural samples and the reported reliability and validity. The thesis conclusions are presented in Chapter 5 with reference made to the need for further research into gang membership, especially within the UK. The implications for current forensic practice are also discussed.

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## CHAPTER 1

### Introduction

The term *violence* is used interchangeably with *aggression* to describe a behaviour that is directed at harming or injuring another living being who is motivated to avoid such action (Baron & Richardson, 1994; Bushman & Anderson, 2001). Historically, violent behaviour is viewed along a continuum where the level of physical harm inflicted would classify where the behaviour is rated (Berkowitz, 1993). Based on this premise, violence would be at the extreme end of physical harm whereas aggression would be lower and include behaviours that are psychologically damaging. Nevertheless, aggression should not be underestimated as this can be just as damaging to the victim (McMurrin, 2009).

Both violence and aggression have been extensively explored within the academic literature and a range of theories have been outlined to gain a better understanding of why individuals engage in this type of behaviour (Anderson & Carnagy, 2004; Barnes & Jacobs, 2013; Berkowitz, 1993; Goldstein, 1994; Shrum, Burroughs, & Rindfleisch, 2004). This understanding is vital for the continuous development and evaluation of the assessment and rehabilitation of offenders to enable risk to be reduced (Polaschek, Bell, Calvert, & Takarangi, 2010; Woessner & Schwedler, 2014). This is paramount given more than 1.3 million individuals worldwide die each year as a result of violence in all its forms (self-directed, interpersonal and collective) which accounts for 2.5% of global mortality (World Health Organisation, 2014). Narrowing this further, within the UK, it is estimated that 1.2 million incidents of violence occurred between April 2016 and March 2017 (Office of National Statistics, 2017). However, these figures are likely to underestimate the true extent of the problem, as many incidents go unreported (Fitzgerald, 2008).

Furthermore, McGuire (2008) also considered that reliably identifying violent offenders is complicated due to their criminal versatility. Therefore, the social damage that violence can have on society continues to increase.

### 1.1 Setting the scene

A large proportion of individuals who engage in violence have cited how their involvement in a gang was a causal factor of their behaviour (Decker & Van Winkle, 1996; Esbensen & Huizinga, 1993), with most violence being directed at rival gang members (Howell, 1998). When considering the phenomenon of gangs, the first theory to emerge for why individuals joined a gang originated from Thrasher's (1927) work in America. Thrasher proposed a Subcultural Theory, which alongside other theories of gang membership, have continued to emerge from America and will be discussed further in this chapter. In contrast, within the UK, gang research appears to have been relatively sparse and has only come to the forefront following cases where young individuals have died as a consequence of street violence (Hallsworth & Young, 2008). For example, following the prominent drive-by shooting of two young females in Birmingham in 2003, there was an outpouring of anger shown by the public and the media. Moreover, the Police responded by initiating the 'Catch and Convict' programme (BRAP, research report, 2012). This report outlined how the Police prioritised the disruption and dispersal of gangs within Birmingham and more punitive measures were enforced. The rise in street violence by gangs also prompted politicians to react with the Labour Government outlining an action plan to tackle violent gang crime (HM Government, 2008).

Gang violence came to prominence again in August 2011 following a police shooting of a Tottenham man allegedly involved in a gang. In response, a peaceful

protest was initiated which quickly escalated and culminated in number of riots spreading across the UK. This led to the then Prime Minister, David Cameron, outlining an “all-out war on gangs” when he suggested that those who belonged to a gang were “a major criminal disease that infected streets and estates across our country” (The Telegraph, 2011).

As a result of this coverage it is suggested that many hold a preconceived idea of gang members and how to tackle the problem, which often perpetuates from stereotypes (Klein & Maxon, 2006). Furthermore, given the advances in gang research in America, Klein (2001) argued how this knowledge has been inappropriately transferred and applied to gangs in the UK, leading to the creation of the ‘Eurogang paradox’ (p.7). As a result, a number of misdirected policies have been implemented to address the gang problem (Klein, 2001). Additionally, the emerging research within the UK has largely been from a criminological and sociological perspective with psychological research remaining scant (Alleyne & Wood, 2014). Therefore, this thesis will adopt a psychological perspective in order to understand gang membership further.

## 1.2 Definition of gangs

Gang research can be both controversial and complex as definitions vary across academia, the media, policy makers and the Criminal Justice System (Esbensen & Weerman, 2005; Esbensen, Winfree, He, & Taylor, 2001; Home Office, 2006; Young, Fitzgerald, Hallsworth, & Joseph, 2007). This is further complicated as a result of the differing methods used to define gangs, which subsequently impacts on the ability to accurately determine the proportion of individuals identified as being a gang member (Ball & Curry, 1995; Jones, Roper, Stys, & Wilson, 2004; Peterson, 2000).

Nevertheless, a number of typologies have been put forward which use some form of

stipulative definition (Ball & Curry, 1995). Early gang definitions attempted to define a street gang from the perspective of gang members themselves or cite specific examples linked to the term rather than examine this through data provided by official agencies (Hagedorn & Macon, 1989; Knox, 1991). However, these approaches were heavily criticised due to a high level of underreporting. This led to the development of definitions based on data analysis resulting in street gangs being defined by their properties or characteristics (Brown, 2000; Gordon, 2000). For example, Hallsworth and Young (2004) presented a three-tier typology with the first being '*organised groups*' who are professionally involved in crime and view this as a career path. The second tier relates to '*the gang*' and is defined as durable, street based and consists of young people with a collective identity. The lowest tier is the '*peer group*' and this is defined as a small, organised transient group who share a common history. Crime is not a key feature, although it may occur. However, these typologies have been criticised as they characterise the everyday activities of young people as deviant and gang related (Joseph & Gunter, 2011).

For this thesis, focus is given to the study of "*street gangs*". The most widely cited definition for a street gang is the Eurogang definition (Weerman et al., 2009). This uses a correlational synthetic definition meaning that there are factors that correlate to those in a street gang. Weerman et al. (2009) proposes that both youth and criminality are central features to a street gang's identity. However, such methods can be too restrictive (Ball & Curry, 1995) with a number of academics arguing that criminality is not a central component for defining a street gang (Bennett & Holloway, 2004; Bjerrgaard, 2002; Decker & Van Winkle, 1996). Furthermore, whilst Gordon (2000) outlined that there is evidence to suggest adolescents are more likely to be involved with street gangs, Knox (2000) and Watkins and Moule Jr (2014) found street gangs to

consist of both adult and young members, with ages ranging from children (under twelve) to thirty years plus. This suggests that street gang membership is not confined to youth and a broader scope for understanding gang activity is needed. In contrast, Hallsworth and Silverstone (2009) outline how it may be more helpful to abandon such definitions as the word 'gang' conjures up stereotypes that are potentially misleading. Furthermore, Smithson, Ralphs, and Williams (2013) found individuals who had been defined by the authorities as gang members frequently did not consider themselves as this. As such, Esbensen et al. (2001) argued that 'gang labelling' can occur which can lead to the authorities overestimating or underestimating the number of gang members. Labelling gang members can also have significant consequences for the individual as evidenced within some states in America. Here, gang members who are convicted of a crime are more likely to receive a longer prison sentence, of up to 10 years, in comparison to a generic violent offender (Esbensen et al., 2001; Winfree, Fuller, Backstrom, & Mays, 1992).

Whilst these criticisms are noted, definitions are viewed as necessary (Robinson, 1950) and helpful in order for the construct that is being defined to be appropriately assessed (Bentley & Dewey, 1947). As a means of overcoming some of the criticisms noted, gaining a personal perspective from individuals (Bjerregaard, 2002; Esbensen & Weerman, 2005; Peterson, 2000) and allowing individuals to self-nominate may be more appropriate (Wood & Alleyne, 2010). Esbensen et al. (2001) investigated the validity of this method and concluded that this can be effective in distinguishing between gang and non-gang youth. However, there is a level of subjectivity with this method (Harris, Turner, Garrett, & Atkinson, 2011; Winfree et al., 1992). Therefore, gaining an objective report of gang involvement from official records

alongside the individual's self-identification would provide a more inclusive and global understanding of gang membership (Wood & Alleyne, 2010).

Overall, the literature suggests that there is a lack of consensus about what defines a street gang and this invariably has an impact on the comparability of research outcomes. Given research needs to be underpinned by theory and should include the methodology to allow for replication, Miller's (1992) definition of a street gang has been applied within this thesis.

Miller (1992) states the following:

A self-formed association of peers, united by mutual interests, with identifiable leadership and internal organisation, who act collectively or as individuals to achieve specific purposes, including the conduct of illegal activity and control of a particular territory, facility or enterprise (p. 21).

This definition is not dissimilar to other definitions cited, and is considered the most appropriate as it is more encompassing because it is not age restricted such as the Eurogang definition (Weerman et al., 2009).

### 1.3 Theories of gang membership

As detailed, the earliest theory published on gang membership was put forward by Thrasher in 1927. He outlined how economic instability in disadvantaged areas contributed to social disorganisation where individuals over time begin to weaken ties and lose interest with family, school and the church. This then causes conflict between individuals which is pivotal for gangs forming and leads to further tension when others oppose their values. Other criminological theories have built on this idea and have been adapted to take into account societal changes. Shaw and McKay (1931) outlined how disorganised neighbourhoods transmit criminal traditions where an individual is exposed to learning and accepting these behaviours as a way of life. Criminality within

the group is then passed from generation to generation, motivating others who are not satisfied with the more conventional norms to engage with the gang. However, a criticism of this theory is how emphasis is placed on the working class when criminal behaviour occurs across societal classes (Sutherland, 1937). Instead, Sutherland proposed that gangs form as a result of associating with peers who already hold criminal norms. Subsequently, the individual develops motives, drives and attitudes in line with gang norms and the more they are exposed to these the more their intent to commit criminal activity increases. A further criticism is that consideration is not given to the impact of individual choice (Emler & Reicher, 1995).

Strain Theory (Cohen, 1955) attempted to address these criticisms and hypothesised that gang membership is the result of how society expects individuals to achieve a number of goals. These can only be achieved by a limited number of people and so the opportunity to achieve these places strain on the individual. Applying this to gang members, Cohen argued that they experience strain from status frustration and align themselves with likeminded individuals in order to target the middle class who they view as having taken their opportunities. However, Knox and Tromanhauser (1991) criticised this theory for not being able to adequately explain why individuals joined who were already wealthy and had good family support. Following this, Control Theory (Gottfredson & Hirschi, 1990) attempted to provide a broader perspective to criminality suggesting that offending occurs because of deteriorating social structures within the community. Moreover, individuals offend to achieve short term gains such as financial reward. Whilst this theory has been used to predict the onset of gang membership, Thornberry, Krohn, Lizotte, Smith and Tobin (2003) argued that the social psychological processes of gang formation was missing and the theory did not provide an adequate explanation as to why there is a continued desire to remain in a

gang. Therefore, they put forward the Interactional Theory which suggests that gang membership occurs due to a relationship between the individual and peer group coupled with social and environmental factors. This theory was considered advantageous as it acknowledges individual differences and accepts that not all gang members are alike. However, Wood and Alleyne (2010) concluded that this theory still presents an incomplete picture of gang membership as the role of psychological principles such as personality traits and identity are not considered. Through theory knitting they created one multi-disciplinary framework, which they argue is more encompassing as it incorporates the strengths of previous theories to explain why individuals may or may not join and desist from gang activity. This framework was labelled as the 'Unified Theory of Gang Involvement' and is discussed in more detail in Chapter 3.

There are also additional psychological processes within the literature which are important to attend to as they can also play a vital part in helping to understand gang membership (Klein & Maxson, 2006). For example, Moffitt (1993) outlined that within the same group there are different types of offenders who co-exist together and as such can offer an explanation as to why certain individuals are attracted to joining a group and then later choose to disengage. Moffitt labelled individuals as either Life Course Persistent (LCP) or Adolescence Limited (AL) offenders. Those who are categorised as LCP, have a consistent pattern of anti-social behaviour which stretches into adulthood and are more likely to exhibit early behavioural problems, have weaker family ties and display more impulsive behaviours (Moffitt, Caspi, Dickson, Silva, & Stanton, 1996). However, AL offenders are those who restrict their anti-social behaviour and only engage in their teenage years. Subsequently, Moffitt, Caspi, Rutter, and Silva (2001) suggested offenders are more likely to be susceptible to peer influences but as they become older they 'grow out' of the group and begin to see other opportunities, such as

employment, as more important. Moffitt's theory may offer an explanation as to why a number of street gangs consist of a variety of age ranges and emphasises further the importance of broadening the definition for understanding gang membership. Furthermore, this also has implications when understanding the criminogenic needs of gang members as those identified as LCP may require more intensive or alternative therapeutic interventions than AL offenders.

Another perspective to consider is the impact group processes can play on gang formation as membership offers individuals something they need or want (Goldstein, 2003; Wood, 2014). An influential theory within the sex offender literature is Harkins and Dixon's (2010, 2013) framework for understanding Multiple Perpetrator Sex Offending (MPSO). Not dissimilar to the unified theory detailed, Harkins and Dixon propose that there is an interaction between the individual (personality, development factors, sexual preferences), the sociocultural (societal myths and values about women, sexuality and violence) and situational context (group environment). Furthermore, they propose that different group processes occur within this which impact on an individual's vulnerability to engage in a sexually violent act. The first process considered key was 'Social comparison' whereby an individual will adopt certain values and engage in group behaviours in order to feel accepted and gain approval from their peers (Hogg & Giles, 2012). Similarly, linking this to the process of 'Conformity', individuals will change their attitudes and statements or behaviour to be consistent with the group, even if individually they may privately reject these beliefs/values. Applying this to gang membership, this may explain why some gang members have not engaged in criminal behaviour before joining a gang (Thornberry, Khron, Lizotte, Smith, & Tobin, 2003). Another group process is 'Social Dominance' whereby certain individuals will develop the interpersonal need to have control and

seek to increase their status within the group (Harkins & Dixon, 2013). Through this process, some individuals will become leaders and others perceived as followers (Etgar & Ganot-Prager 2009) which clearly has implications when assessing the criminogenic needs of those within the group. For example, Franklin (2004) found leaders of MPSO were more likely to have a history of delinquency, be more likely to pre-plan offences and be willing to initiate sexual and violent behaviour first as a means of enhancing their masculinity. Groth and Birnbaum (1979) and 't Hart-Kerkhoffs, Vermeiren, Jansen, and Doreleijers (2011) also found leaders to experience diminished feelings of responsibility whereas followers were more emotionally dependent and gave into peer pressure easily. This idea of peer pressure fits with the process of 'Obedience to Authority' where some individuals will follow orders from those they see as higher in the group hierarchy, particularly if they are fearful of reprisals if they disagree. The 'Social Corroboration' process is where the group will show support for shared attitudes or choices which leads to a stronger cohesive group. Subsequently, the more highly cohesive the group is, the more efficient they are at achieving their shared goals (Hughes, 2013). The final group process Harkins and Dixon included in their framework was the process of deindividuation whereby over time an individual will lose their sense of individuality and becomes submerged in the group's identity. In turn, individuals are more likely to disengage from their existing moral standards in order to justify the harmful acts they are engaging in (Alleyne, Fernandes, & Pritchard, 2014). Whilst these processes have been applied to understanding MPSO groups, the theoretical underpinnings remain relevant to understanding gang membership. This is echoed by Wood (2014) who reinforced how group processes must be attended to in order to develop a robust research agenda. Moreover, they play a central role in

helping to understand gang members' criminogenic needs which, in turn, can assist in how rehabilitative interventions are designed and developed.

#### 1.4 Criminogenic needs of violent offenders

McGuire (2008) argues that those who engage in violence are usually found to have multiple criminogenic needs, with each accounting for only a small proportion of variance. Esbensen, Peterson, Taylor and Freng (2009) outlined how these needs can be categorised into five major domains: individual; family; peer; schooling; and community. However, others have argued that the motivation behind why individuals use violence can differ between types of offenders (Gudjonsson & Sigurdsson, 2000). Despite this, a number of factors have emerged in order to predict violent recidivism. First, the role cognition plays is considered a key factor in whether someone engages in violence with the focus being on how an individual thinks, their style of thinking and how their attitudes develop as they interpret and make sense of the world they live in (Collie, Vess, & Murdoch, 2007). Moreover, Walters (1990) designed the Psychological Criminal Thinking Styles (PICTS) psychometric measure to capture criminal thinking on the basis that this is a core feature of an offender's profile and can help classify them for both treatment and management of risk (See Chapter 4 for a critique of this psychometric measure). When considering violent offenders' cognitive processing (in comparison to general offenders) they show a propensity to perceive threat and hostility in ambiguous situations which is then strongly associated with reactive aggression (de Castro, Veerman, Koops, Bosch, & Manshouwer, 2002; Seager, 2005). Polaschek, Calvert, and Gannon (2009) reinforced these findings when analysing offence transcripts of violent offenders entering a high intensity offending behaviour programme in New Zealand. Here, violent offenders were likely to normalise violence, view hostile challenges as an opportunity to enhance their image and

dominance over others, protect themselves from exploitation and feel entitlement to harm others as a means of protecting others. Anderson and Bushman (2002) also found that violent offenders appear to develop cognitive techniques which help them to disengage morally from their actions. In turn, this enables them to overcome their inhibitions as they are able to provide justification for their actions.

The degree to which an individual understands the causes of their past violence has also been considered a good indication for future violence (Bjorkly, 2006; Webster, Douglas, Eaves, & Hart, 1997). This suggests that violent offenders who demonstrate low levels of insight into the causes of their violence should be targeted during treatment. In contrast, more recently, Low and Day (2017) undertook a study to explore whether heterogeneity exists within the violent offender population in order to help inform treatment options. Participants were classified in terms of the expression of anger as either unregulated, regulated or overregulated and whether they held beliefs supportive of a criminal lifestyle. From their cluster analysis, they found the unregulated group had high levels of anger and held beliefs supportive of a criminal lifestyle whereas the regulated group experienced levels of anger and beliefs supporting criminal activity not in a range which warranted treatment. The overregulated group held low levels of anger experience prior to treatment and an absence of beliefs supporting criminal activity. These findings suggest criminal thinking style factors may not be criminogenic for all violent offenders and how offender behaviour programmes are likely to be most effective when targeted at particular violent offender types.

Alleyne and Wood (2014) and Alleyne, Fernandes, and Pritchard (2014) also found cognition to be a significant feature in gang members' offending in comparison to non-gang members as they were more likely to process information to help

dehumanise the victim to justify the high levels of violence used. They also found that gang members would blame others, especially rivals, as it helped to justify retaliation. However, it must be noted that there were no significant differences between gang members and non-gang offenders on diffusion of responsibility and distortion of consequences. Therefore, cognition as a criminogenic need is considered a central focus for interventions for both violent gang and non-gang offenders. However, Alleyne and Wood (2013) argue that gang members appear to hold more anti-authority attitudes than other offenders and value social status in order to prove themselves. Not surprisingly, the association between peer relationships and the impact this has on the development on cognition is also found to be more prominent with gang members (Chu, Daffern, Thomas, & Lim, 2011; Curry & Spergel, 1992). Therefore, it could be surmised that gang members' socio-cognitive processes may differ from non-gang members.

Violent offenders have also been found to typically respond aggressively to the cues they interpret as provocative such as a perceived insult, with no consideration for the negative consequences to themselves or others (Polaschek & Reynolds, 2001). Therefore, impulsivity has also been linked to an increase in violence and aggression, particularly in response to situations perceived as provocative (Douglas et al., 2014; Gilbert & Daffern, 2009; Zamble & Quinsey, 1997). Others have suggested that traits of impulsivity are a criminogenic factor present for both violent and general offenders (Ross & Fontao, 2008). Yet Esbensen et al. (2001) and Esbensen and Weerman (2005) identified that gang members demonstrate more impulsive and risk taking behaviours compared to violent non-gang youths and, as such, require more support to address this criminogenic need.

Another factor to emerge is the role of emotions and how these can influence the way in which social information is processed (Anderson & Carnagey, 2004; Howells, 1998; Novaco, 1997). Whilst anger is not necessarily a precursor for violence, anger and similar emotions (e.g., rage, hate, and revenge) are common antecedents of violent offending (Novaco, 2011) and the management of such emotions are a key feature within violent offender rehabilitation (Polaschek & Dixon, 2001). Ireland (2009) also proposed that other emotions such as fear, anxiety, guilt, excitement, rejection and humiliation can be just as powerful as anger to drive a violent response. Studies have also found that provocation is linked to rumination and is a feature in both expressive and controlled individuals (Chambers, 2010; Horowitz, 1986). Huesmann (1998) argued that rehearsing an aggressive or violent act reinforces the underlying cognitive patterns which can influence the individual's interpretation of events and increases the likelihood that aggressive scripts will be reactivated in subsequent situations. In line with this view, it has been found that gang members adopt a culture of honour and can be hyper-sensitive to instances of disrespect where retaliation is viewed as necessary as it will help to reduce the feelings of anger and restore the balance within the group (Cohen, Nisbett, Bowdle, & Schwarz, 1996). Therefore, it is posited that anger is a useful response for gang members as it will assist in the cognitive process of revenge planning and fantasy (Decker & Van Winkle, 1996; Klein, 1995; Moore, 2002; Vigil, 1998). Moreover, Vasquez, Lickel, and Hennigan (2010) proposed that gang members may be more vulnerable than non-gang members to experiencing and managing their ruminating thoughts due to their social environment being rooted in stress. Consequently, engaging in violence appears to be an emotional management response to feelings of anger and ensuring their reputation and status

remains intact (Vasquez et al., 2010). Therefore, it is suggested that more focus needs to be given to the idea of retaliation as a criminogenic need for gang members.

Masculinity has also been viewed as a criminogenic factor related to violence and aggression as it is linked to constructs such as physical strength or power, aggressiveness, risk-taking and emotional control (Hornby, 1997). Whitehead (2005) hypothesised that pressure exists for males when they consider their masculinity to be under threat and they may respond with violence to restore their image. Therefore, masculinity can be viewed as a criminogenic factor related to violence and aggression. Reilly, Muldoon, and Byrne (2004) explored masculinity with young males in Northern Ireland and reported how participants believed that violence would result in women finding them more sexually attractive. Similarly, masculinity and the need to preserve a male identity are key for gang members (Strektesky & Pogrebin, 2007). Cohen et al. (1996) found that respect and perceived insults towards their masculinity can readily provoke aggression. Similarly, a relationship has also been found between self-esteem and violence, especially in the face of humiliation (Walker & Bright, 2009). Donnellan, Trzesniewski, Robins, Moffitt, and Caspi (2005) argued that low self-esteem correlates with joining and sustaining membership within a gang as a sense of belonging is gained which helps the individual to feel connected. Contrary to this, Thornberry et al. (2003) and Esbensen, Huizinga, and Weiher (1993) found that low self-esteem was not indicative of gang membership. Other studies have also found the reverse with high levels of self-esteem resulting in more violent behaviour in offenders (Baumeister, Bushman, & Campbell, 2000). This suggests that whilst self-esteem may be a criminogenic need related to violence, the causal relationship is less clear.

However, less attention has been given to the specific criminogenic needs of gang members and regarding whether there are differences in their response to

rehabilitative measures when comparing them to violent non-gang offenders. Research has suggested that gang members hold an underlying belief that it is necessary to possess firearms which is viewed as a criminogenic risk factor for an increase in their use of violence (Bjerregaard & Lizotte, 1995; Curry et al., 2002). Specifically, owing to the need for status and image, gang members are more likely to arm themselves than any other offender group in order to show a level of sophistication over others (Horowitz, 1983) as well as ensuring they are protected from retaliatory violence (Klein & Maxson, 1989; Maxson, Gordon, & Klein 1985). Pyrooz, Sweeten, and Piquero (2013) also found that gang members were more likely to have limited interactions with pro-social peers unlike other offenders which, in turn, impacted on their ability to develop a network that promoted desistance from gang behaviour. This suggests that there may be specific factors which need to be attended to when considering rehabilitative measures for gang members. However, studies looking for differences between violent gang members and violent non-gang members are still in their infancy in comparison to other offender typologies that have been explored (O'Brien, Daffern, Chu, & Thomas, 2013).

Esbensen et al. (2009) found that whilst 18 risk factors were significantly associated with gang membership and violence, none uniquely predicted gang membership. In contrast, Alleyne and Wood (2013) compared a group of non-gang youth with gang youth in a British setting. Here, gang members were more likely to be involved in group crime, threaten people, steal, commit robbery, destroy property, draw graffiti, and engage in illegal drug and alcohol use. The two groups did not differ in the level of fights they had, selling drugs, carrying weapons and breaking and entering into properties. Whilst this study showed that there may be differences, the sample used high school students; as such, questions are raised as to the applicability of the findings

to an adult forensic population. Therefore, more research would be beneficial to understand further the criminogenic needs of gang members.

### 1.5 Offender rehabilitation

The Criminal Justice System implements a variety of measures as a means of discouraging individuals from offending (McGuire, 2002; McGuire & Priestley, 1995). One argument is for punitive measures to be enforced where individuals are deprived of their freedom and thus the negative consequences of their actions highlighted (Caldwell, 1944; Walker, 1991). Another view taken is a rehabilitative focus with the idea being that offenders are encouraged to access cognitive behavioural programmes, education and employment courses in order to develop new skills (Cooke & Philip, 2001; Hollin, 1999). It is hoped that, if these skills can be maintained, individuals are less likely to return to their maladaptive behaviours.

Since 1996, within the UK Prison Service, accredited interventions have been implemented which are evidence based and aim to directly target the needs of offenders to promote change (McGuire, 2002). These range from general offending behaviour programmes addressing offender thought processes and behaviour, to substance misuse programmes and violent offender programmes. Whilst there has been research in support of the rehabilitative principles for all three (Hatcher et al., 2008; Hollin & Palmer, 2006; Martin & Player, 2000, McGuire, 2001; Sadler, 2010) it is equally accepted that offender behaviour programmes do not work for all (Andrews & Bonta, 1995; Marshall et al., 2003). Moreover, there is a need to assess whether an offender has responded to treatment rather than solely attributing success to the completion of a programme (Beech, Erikson, Friendship, & Ditchfield, 2001). When focusing specifically on rehabilitative initiatives for gang members, this is in its infancy, with no

published research being undertaken in a custodial setting in the UK. For example, McMahon (2013) examined 12 programmes which aimed to reduce gang and youth violence within the London area. This evaluation found that for a direct effect to be observed individuals needed to access targeted comprehensive, multiagency programmes. However, these findings were tentative as it was not possible to conclude whether targeted programmes were more effective than general interventions as the available evaluations measured different effects. Moreover, Hodgkinson et al. (2009) conducted a systematic review of rehabilitative programmes and found that only 5 out of 17 programmes were deemed to be of high quality. All were based in America. Therefore, further research is clearly warranted on whether gang members who access offender behaviour programmes benefit from treatment within a UK context.

#### 1.6 Aims of thesis

A plethora of research has focused on identifying the engagement factors as to why individuals join a gang; however, less attention has been given to understanding their criminogenic needs and how to effectively help gang members address their risk and disengage from this lifestyle. Therefore, this thesis aims to contribute to the knowledge base regarding the psychology of gang membership and includes a review of the current literature on gang desistance. This thesis will also aim to aid professionals' understanding of the effectiveness of offender behaviour programmes for both violent gang and violent non-gang offenders which have been designed using evidence based practice. More specifically, the following aims have been identified:

- To review the current literature on desistance and how this can be applied to street gang members.

- To investigate the potential impact of two treatment programmes with a sample of adult male violent gang and violent non-gang offenders in custody.
- To explore the views and experiences of a group of male gang offenders following the completion of these programmes in order to gain further insight into what may influence an individual's desire to join a gang as well as the process of disengagement.
- To provide suggestions for current practice in the field of the rehabilitation (i.e., services and interventions) of adult male violent gang offenders.

### 1.7 Overview of chapters

The second chapter of this thesis is a systematic literature review which examines the current research regarding the factors which increase the likelihood that an individual will disengage from a gang. Understanding the reasons why individuals choose to leave their gang is of paramount importance in helping to develop policy and guide practitioners to assist individuals with this process. Less attention has also been given to the gang rehabilitative process which is key to help assist practitioners and policy makers understand whether the offending behaviour programmes delivered are responsive to the needs of gang members. To address these concerns, Chapter 3 report an empirical mixed methods research study with a sample of adult male offenders who were in custody within the High Security prison estate. This is the first study of its kind in the UK to investigate the impact of two generalised violent offender behaviour programmes and compare adult male violent gang and violent non gang offenders. Findings are discussed with reference to current practice. Furthermore, the qualitative component of the study provides an in-depth exploration of male gang offenders' views to develop a greater understanding of the gang process and identify the role services

and treatment programmes can play in both custody and community settings by exploring what works.

Chapter 4 provides a critique of the scientific and psychometric properties of the Psychological Inventory for Criminal Thinking Styles (PICTS; Walters, 1990). Understanding criminal thinking styles is important in helping classify offenders for both treatment and the management of their risk (Mandracchia & Morgan, 2012). Once identified, these thinking styles can be targeted to help offenders consider how their thoughts have impacted on their behaviour. This may also be helpful in assessing treatment readiness (Taxman, Rhodes, & Dumenci, 2011) and assessing change as a function of treatment involvement (Walters, 2012).

In order to classify and assess criminal thinking, a number of measures have been devised, including the Criminal Sentiments Scale (CSS; Gendreau, Grant, Lepciger, & Collins, 1979) and Measures of Criminal Attitudes and Associates (MCAA; Mills, Kroner, & Forth, 2002). Both focus on the content of what an offender thinks, which differs from the self-report measure the PICTS (Walters, 1990). The PICTS focuses on the criminal thought process and has continued to grow in popularity within the forensic and criminological fields (Gobbett & Sellen, 2014; Palmer & Hollin, 2003, 2004a, 2004b). Therefore, it was deemed important to analyse the scientific and psychometric properties of the PICTS on the basis that since publication, this measure continues to be used (Healy & O'Donnell, 2006; Low & Day, 2017; Megreya, Bindemann, & Brown, 2015; Palmer & Hollin, 2003, 2004a;). Moreover, no psychometric measuring cognition is used by NOMS for the evaluation of violent interventions, despite criminal attitudes and beliefs being linked to both the criminogenic needs of violent and gang offenders (Alleyne & Wood, 2010; Alleyne, Wood, Mozova, & James, 2016; Andrews, Bonta, & Wormith, 2006). Whether this

measure should be used to measure treatment effectiveness, particularly with gang offenders, is discussed.

This thesis then concludes with a general review of the findings and limitations, as well as a discussion of the potential implications for services and professionals, and suggestions for future research.

## STATEMENT OF AUTHORSHIP

Chapter 2 has been submitted for publication<sup>1</sup>. The authorship on this chapter indicates collaborative working where I am the senior author and my supervisor, Zoe Stephenson is named as second author. Chapter 3 is intended for future publication, as a consequence there may be repetition of material in introduction and discussion sections.

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<sup>1</sup>Tonks, S. & Stephenson, Z. (Submitted). Disengagement from Street Gangs; A Systematic Review of the Literature. *Psychiatry, Psychology and Law*.

## **Chapter 2**

### **Disengagement from Street Gangs; A Systematic Review of the Literature**

## 2.1 Abstract

### Aims:

A plethora of research has focused on identifying the risk factors as to why individuals join a gang; however, less attention has been given to the process of disengagement. Therefore, the aim is to systematically review the literature regarding factors which increase the likelihood that an individual will disengage from a gang.

### Method:

Seven academic databases were searched, reference lists of relevant publications were hand searched, and an online search engine and government database were used to identify relevant studies. Inclusion and exclusion criteria and quality assessment methods were employed to refine the literature search. Data were then extracted and synthesised using a qualitative approach.

### Results:

Seven studies were included in the review. All studies found multiple factors related to disengagement which could be linked to the “push and pull paradigm”. The most commonly cited reasons for disengaging were linked to parenthood and victimisation (either from within their own gang or from rival street gang members).

### Conclusions:

The review suggests that there is not one definitive reason as to why individuals choose to leave a gang, and that there are a range of factors, such as having a significant other in their life, parenthood, incarceration and maturation, which work in combination to encourage disengagement. These factors act to help the individual

develop an awareness of the problems associated with their lifestyle. Variability was found in the quality scores for the studies. The limitations of the review are discussed as well as clinical implications and future research ideas.

## 2.2 Introduction:

In the last decade the issue of gangs has received increasing academic, political and media attention (Gormally, 2015). Within the UK, notable areas such as Birmingham (Shropshire & McFarquhar, 2002), London (Shropshire & McFarquhar, 2002) and Manchester (Mares, 2001) have seen the impact gangs have had on the local communities, with members dominating neighbourhoods and engaging in escalating violence. Moreover, the impact of being exposed to this violence has led to the Criminal Justice System, Police and hospitals becoming stretched by the added pressure of having to deal with more cases caused by gang related activity (Coid et al., 2013). Despite these continuing problems, there remains a longstanding debate on what constitutes a gang. Numerous definitions and typologies have been provided (Ball & Curry, 1995; Brown, 2000; Gordon, 2000; Hallsworth & Young, 2004; Home Office, 2006), with the most widely cited definition being the Eurogang definition (Weerman, et al., 2009). This suggests that a gang is “any durable, street oriented youth group whose involvement in illegal activity is part of their group identity” (p. 20). However, gangs can consist of both adult and young members (Knox, 2000; Watkins & Moule Jr, 2014). In particular, older street gang members have been reported to be more involved in serious violence (Maxon, Gordon, & Klein, 1985) and find the allure of status more appealing (Decker & Curry, 2000) than adolescent street gang members. This suggests that street gang membership is not confined and a broader scope for understanding gang activity is needed. Nevertheless, Esbensen, Winfree, He and Taylor (2001) argue that a national consensus is unlikely to ever be reached as experts will inevitably find fault with each definition published. Questions are also raised as to whether a consensus needs to be obtained as individuals do not refer to themselves in this manner (Fleisher, 2000; Masiello, 2006); rather it is a label applied by the Criminal Justice System in

order to categorise the problem. For the purpose of this review, as detailed in Chapter 1, Miller's (1992) street gang definition has been applied as this allows for a wider search of the literature.

### 2.2.1 Reasons for joining a gang

To understand the process of gang membership, it is first important to understand why individuals identify and become involved with this lifestyle. Academics have tended to concentrate on engagement factors to help inform policy makers on how to prevent individuals, particularly youth street gang members, from being attracted to a gang lifestyle. Moreover, the reasons that motivate and contribute to individuals becoming more susceptible to joining a gang can be identified using the idea of push and pull factors. This paradigm has been used in many academic fields to explain human behaviour, including gang membership. Push factors are deemed internal and drive the individual towards membership whereas pull factors are external in which the individual perceives a benefit to belonging to a gang and so is pulled towards this lifestyle (Decker & Van Winkle, 1996; Harris, Turner, Garrett, & Atkinson, 2011). However, Carson and Vecchio (2015) argue that while motivations for joining and leaving a gang can be classified by this paradigm, the factors for engagement are not always the reverse for why disengagement occurs.

Raby and Jones (2016) conducted a systematic literature review as a means of assessing the quality of the engagement research in order to determine whether it was possible to classify why males join street gangs. Reasons for joining were cited under four domains, with the first being 'family'. It was widely supported across the literature reviewed that a genetic pre-disposition to gang involvement (Beaver, DeLisi, Vaughn, & Barnes, 2009), poor parental attachment and coping skills (McDaniel, 2012), a lack

of parental supervision (Pyrooz & Sweeten, 2015) and parental abuse (Thompson & Braaten-Antrim, 1998) contributed to individuals joining a gang. The second domain was labelled as ‘schooling’ and studies found that an individual’s lack of commitment to education (Alleyne & Wood, 2014) as well as being suspended (Farmer & Hairston, 2013) and holding hostile attitudes towards teachers (Ngai & Cheung, 2007) increased the risk of gang membership. The third domain was classified as ‘individual’ with those joining a gang having been more likely to engage in antisocial behaviour than offenders who did not identify as a street gang member (Alleyne & Wood, 2013; Melde & Esbensen, 2011). Familiarity with the drug scene (Thornberry, Krohn, Lizotte, & Chard-Wierschem, 1993), a perceived need for protection (Barnes, Boutwell, & Fox, 2012; Coid et al., 2013), poverty as well as a need to increase their social status (Alleyne & Wood, 2013; Dmitrieva, Gibson, Steinberg, Piquero, & Fagan, 2014) were also deemed to contribute to joining a gang. Psychological difficulties such as low self-esteem (Dmitrieva et al., 2014); trauma and mental health problems (Coid et al., 2013) were also identified as ‘individual’ factors. The final domain was categorised as ‘peers’, with the reviewed studies outlining that associating with anti-social peers posed a significant influence upon individuals wanting to belong to a gang (Alleyne & Wood, 2014; Weerman, Lovegrove, & Thornberry, 2015). However, the systematic review only related to males and as such gender was not a variable taken into account.

Historically, gangs have been viewed as male; however there is emerging research to suggest a number of gangs are mixed gendered (Gover, Jennings, & Tewksbury, 2009), with female street gang members sharing a number of similarities to their male counterparts in why they join (Carson, Peterson, & Esbensen, 2013; O’Neal, Decker, Moule Jr, & Pyrooz, 2016; Peterson, 2012), for example, excitement, peer influence and protection. In contrast, Bell (2009), Esbensen, Deschenes and Winfree

(1999) and Thornberry et al. (2003) argue how there are also unique features for females in their transition into the gang and their experiences whilst immersed in this lifestyle. Specifically, female gang members were considered to typically join at a far younger age, be less impulsive and exposed to a greater level of fear and violence making protection a far more appealing aspect of joining than for male gang members. Moreover, Weerman (2012) found male street gang members were more involved in criminal activity and the type of offending by males was classified under the Judicial System as more serious. Hayward and Honegger (2014) and Peterson and Morgan (2014) have also found how female gang members, once exposed to gang life, face different forms of victimisation (abuse, sexual assault and exploitation) which are less common for male members. More recently, Sutton (2017) found from her review of the literature on female gang members that there are differences and thus concluded gender does shape the risk factors and consequences of gang involvement.

### 2.2.2 Disengagement

Another dynamic of the gang process is disengagement and, as detailed, less research attention has been directed to this. Laub, Nagin and Sampson (1998) argued that focus has to be given to this area as the factors contributing to individuals making the choice to desist are not necessarily the inverse or opposite to those that made them become involved. Therefore, it is surprising that more focus has not been given to this area, especially as gang membership is often viewed as a temporary status (Melde & Esbensen, 2014; Thornberry, Huizinga, & Loeber, 2004). Moreover, as gang membership reportedly mirrors the life cycle of criminal behaviour (Pyrooz & Decker, 2011), it is assumed the pattern of onset, immersion and desistance would be comparable to joining, maintaining and leaving a gang.

Sanchez-Jankowski's (1991) early study on gang disengagement hypothesised six ways that individuals could leave their gang; mature, die, go to prison, employment, join another gang or leave as a result of the gang disbanding. Within the general desistance literature, Maruna (2001) argues that disengagement cannot be solely categorised as a single pivotal turning point. Therefore, it could be argued that leaving a gang is more complex than being linked to one event. Maruna (2000) identified three broad theoretical perspectives to describe the process of desistance; maturational, sociogenic and narrative. The Maturational process hypothesises that criminality reduces during an individual's life because of physical, mental and biological changes that take place that are linked to the ageing process. This means an individual is likely to grow out of crime (Rutherford, 1992). However, Bushway, Piquero, Broidy, Cauffman and Maserole (2001) outlined that whilst ageing will impact on the developmental process, age cannot account for other pathways associated with disengagement and is not in itself an explanation for change.

The Sociogenic process advances from the Maturational perspective by outlining that there is an association between disengaging and external circumstances, such as a positive family role model (Carson et al., 2013; Decker, Pyrooz, & Moule Jr, 2014), marriage (Sampson & Laub, 1993), parenthood (Fleisher & Krienert, 2004) employment (Decker & Lauritsen, 2002) and renewed faith (Giordano, 2010). However, Gottfredson and Hirschi (1990) and Uggen (2000) found in their studies that employment had no effect on desistance. Additionally, Moore (1991) concluded that marriages were often short-lived for street gang members and, as such, not a significant factor in encouraging them to leave this lifestyle behind. Given the conflicting findings, it is again postulated that desistance is not solely attributable to external factors. Moreover, a Sociogenic process fails to take into account the individual themselves and

the value they may place on these factors, which in turn reduces their motivation to engage. The Narrative process builds on this idea outlining that disengagement should be viewed as a combination of individual and structural factors where true insight can only be gained by the subjective perspective of the individual. This also stresses the importance of an individual's self-worth, confidence and identity (Burnett, 1992; Farrall & Bowling, 1999; Maruna, 2001) as key factors in contributing to change.

Taking into account Maruna's perspectives on desistance, it can be hypothesised that for an individual to disengage from offending, they must have a reflective thought process as well as an opportunity to desist in order to consider change. Furthermore, certain life events such as marriage or becoming a parent may help strengthen this process. This would link in with the push/pull paradigm cited earlier whereby the push factors would be seen as an individual assessing internally that the environment is unappealing and effectively pushes them away from their gang and certain pull factors presents the idea that there are external alternatives which are more appealing than gang life. However, it is important to highlight that Maruna's work takes into account a general criminal lifestyle and does not specifically relate to gang membership. Therefore, whilst there may be similarities between risk and disengagement factors in general criminality and gang membership, there may also be important differences.

### 2.2.3 Current review

To determine whether prior systematic literature reviews had examined the factors of why individuals disengage from a gang; a scoping search was conducted on 12<sup>th</sup> January 2017. The databases searched were: Cochrane Database of Systematic Reviews, Psych INFO, Medline and The Campbell Library of Systematic Reviews. No relevant systematic reviews were found. A wider online search was also completed

which revealed a narrative literature review on gang desistance (Carson & Vecchio, 2015). The conclusions drawn from this were that further research into this area would be beneficial. Therefore, it was deemed that a systematic literature review would be advantageous. Therefore, the aim of this review is to understand whether disengagement factors can be identified and summarised from a systematic review of the wider literature. In turn, understanding the mechanisms surrounding leaving a gang may help to inform policy makers and practitioners on how to strengthen an individual's resolve to remain free of being in a gang and continue on the path of desistance. It may also provide a helpful framework for future interventions/strategies for those who are still ambivalent about leaving their gang.

## 2.3 Method

### 2.3.1 Search Strategy

Database searches were conducted to identify the extent of available data and to inform potential search parameters. The preliminary scoping search revealed that whilst gang research has significantly increased in the last few decades, a number of studies were pre 1990 and as such a decision was taken not to include a date parameter. Where required by the limits of databases, the earliest date was chosen.

A search of electronic databases was undertaken on 20th January 2017. The databases searched were: Cochrane Library, Medline, Pilots (PTSD database), ProQuest Applied Social Science Index & Abstracts (1987 – current), ProQuest Sociological Abstracts (1952 - current), OVID Psych INFO (1806 – January Week 3 2017), Science Direct and Web of Science. A decision was also taken at the initial stage not to restrict the article type (journal, book review, editorial) to enable the search to be more encompassing. However, articles were restricted to those written in the English

language due to time constraints and the practicalities of translating full articles. It is acknowledged that this may have limited the search results.

The initial scoping exercise informed the development of search terms utilised in the search strategy (see below) by examining key words that were used in relevant articles. All relevant searches were saved. Wild cards were also used to broaden the search to maximise the chance of collating all relevant literature. A list of the terms included for each database search is provided in Appendix A.

Gang OR Gangs OR Gangster\* OR “Street gang”

AND

“Get out” OR Leav\* OR Depart\* OR Exit\* OR Defect\* OR Desist\* OR Disillusion\*  
OR Withdraw\* OR Terminat\* OR Discontinue OR Deter\* OR Disengag\* OR Push)

An electronic search for grey literature was also undertaken on 20<sup>th</sup> January 2017 using the database Open Grey (search term employed; Gang) as well as the Government Research database. It was considered important to access the latter due to a forensic sample being reviewed (search terms employed were Gang, Disengagement and Desistance).

The search of all electronic databases yielded 2515 articles. There were five articles duplicated within three databases which gave a total of 2510. This search was followed by the researcher analysing the titles and abstracts of these articles to remove those which were not relevant to the review question. This process removed 2348 articles. Of the remaining 162 articles, 75 duplicates were removed, leaving a total of

87 articles for which to obtain the full text. It is important to note three articles could not be accessed online. One author was contacted for the full text copy (Appendix B) with no response. Two papers were from the Journal of Gang Research and the full text was not available through the University of Birmingham. Therefore, inter-library loans were requested and received. Of the 86 full text articles available, a search for relevant publications cited within the papers which had not been identified via the electronic search of databases was undertaken. This revealed 10 further relevant articles to review. This gave a total of 96 full text articles which were then assessed against an inclusion and exclusion criteria (Table 1). These criteria were based upon the earlier literature scoping exercises and the aim of the research question. Moreover, after reviewing Khan, terRiet, Popay, Nixon, and Kleijnen's (2001) hierarchy of study design, consideration was given as to whether an exclusion be applied to the type of research methodology. However, a number of researchers (DeWaele & Harre, 1979; Johnson & Onwuegbuzie, 2004; Lindell & Whitney, 2001) highlight the value of the weaker designs within the proposed hierarchy. Therefore, given the nature of the research area and accessing data on this type of population, a criteria was not applied. However, a decision was taken not to include female only samples as the literature suggests there may be unique reasons females choose to transition and leave a gang. Mixed samples were included on the basis that there would still be an emphasis on male disengagement factors

Table 1

*PICO Inclusion/Exclusion criteria*

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<b>Inclusion Criteria</b>	<ul style="list-style-type: none"><li>• Sample includes street gang members and/or ex street gang members.</li><li>• Focuses on male only or both genders.</li><li>• No age restriction (children/adolescents and/or adults).</li></ul>
<b>Exclusion Criteria</b>	<ul style="list-style-type: none"><li>• Studies exclusively focusing on female samples.</li><li>• Focuses on extremist groups, organised crime or prison gangs or general anti-social/violent behaviour.</li><li>• Focuses on prevention methods before individuals join a gang.</li><li>• Focuses on types of therapy or interventions.</li><li>• Narratives, reviews, commentaries or editorials.</li></ul>

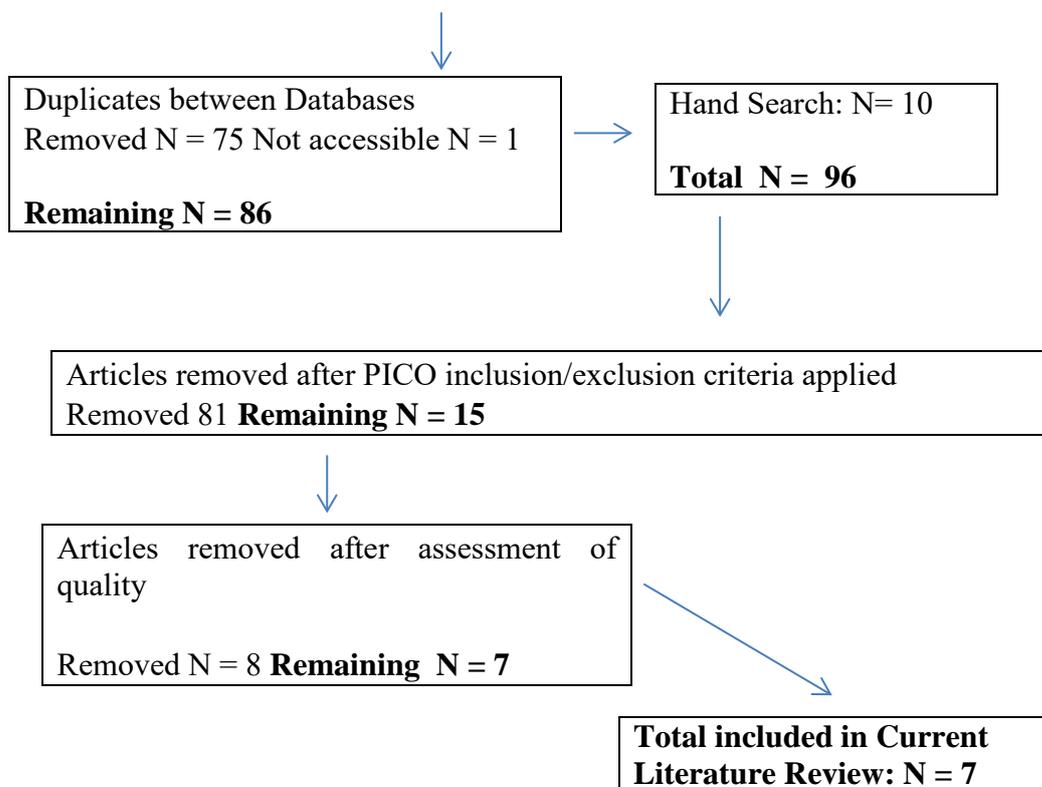
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Application of the criteria resulted in 15 articles, 79 were excluded. An overview of this search process is provided in Figure 1, with more specific detail given in Appendix C.

Figure 1

*Literature review study selection process*

<u>Search of Online Databases</u>	
Cochrane Library	N = 39
Medline	N= 203
Pilots (PTSD database)	N= 10
ProQuest Applied Social Science Index & Abstracts	N= 107
ProQuest Sociological Abstracts	N= 406
OVID Psych INFO	N= 523
Science Direct	N= 640
Web of Science	N= 549
Grey Literature: Open Grey	N = 28
Grey Literature: Government Research Database	N = 10
<b>Total</b>	<b>N= 2515</b> (5 duplicates) <b>N= 2510</b>



### 2.3.2 Quality assessments

Studies deemed suitable following application of the inclusion/exclusion criteria were each assessed for their methodological quality. To assist with this process, the existing Critical Appraisal Skills Programme tool (CASP, 2004) and Mixed Methods Appraisal Tool (MMAT, Pluye et al., 2011) were reviewed. However, some sections of these tools needed to be adapted in order to take into account the qualitative, cross-sectional or mixed method (qualitative and quantitative) design within the 15 articles. Using guidelines from the existing tools mentioned, three separate quality assessment forms were developed (Appendix D). The articles selected were then subject to quality scoring based on the criteria outlined on these forms. Each item on the scoring sheets used a three-point scale (Yes = 2, Partial = 1 and No = 0), with an additional option for “can’t tell”. Whilst this was not included in the scoring, attention was given to this option in a qualitative manner. This involved questioning how clear the information was and the confidence in the information as to why a score was not warranted.

A quality score for each article was achieved by adding the scores of each item, giving a total ranging from 0-14 (qualitative), 0-34 (cross-sectional) and 0-28 (mixed methods). These scores were then converted into a percentage giving an overall quality assessment score. There is little guidance within the research to suggest an acceptable cut-off for inclusion in a systematic review. However, Kmet, Lee and Cook (2004) as well as a number of unpublished systematic literature reviews consider good quality to be obtained by a score of 60% or above. Following this process and guidance, eight studies were excluded as their overall quality score was <60 (See Appendix E).

The quality assessments were tested for inter-rater reliability by providing randomly selected articles from each research design to a professional who had experience of completing systematic literature reviews. There was a general agreement

in ratings for the articles selected and any scoring differences between the ‘raters’ did not change the articles that were excluded from the review on the basis of quality. The question that caused disparity on the qualitative and mixed method sheet was if potential bias by the researcher had been considered in enough detail.

### 2.3.3 Data extraction

A data pro-forma (Appendix F) was created to extract the relevant data from the remaining seven studies. This form was designed in order to facilitate data synthesis and capture information relevant to the research question, which in turn would allow conclusions to be drawn from undertaking this systematic review. This process extracted information relating to sample demographics (gender, ethnicity, sample size, location of study), how participants were recruited, how street gang membership or ex-gang membership was determined, the level of analysis used, findings, conclusions drawn and the strengths and limitations of the study.

## 2.4 Results

The final seven articles remaining after the quality assessment process are detailed in Table 2 along with the year and the country of their publication. Table 3 and Table 4 include the information which was extracted on each study.

Table 2

*Research articles from the literature review*

<b>Author</b>	<b>Title</b>	<b>Country</b>
Bubolz (2014)	Once a gang member always a gang member? A life history study of gang desistance	USA
Decker et al (2014)	Disengagement from gangs as role transitions	USA
Gormally (2015)	'I've been there, done that': A study of youth gang desistance	Scotland
Harris et al (2011)	Understanding the psychology of gang violence: Implications for designing effective violence interventions	England
Munoz (2014)	Getting out and staying out: Exploring factors that helped Mexican American ex-gang members successfully stay out of gangs	USA
O'Neal et al. (2016)	Girls, gangs and getting out: Gender differences and similarities in leaving the gang	USA
Rice (2015)	A qualitative study of gang desistance in former gang members	USA

Table 3

*Characteristics of studies included in the literature review*

Article	Study Design	Research Aims/Hypotheses	Sample Size	Participants	Findings
Bubolz (2014)	Qualitative: Interviews	Community ex-gang members life experiences  1. What experiences motivate individuals to leave street gangs  2. What does it mean to be a former gang member  3. What are the residual effects of gang identity for individuals	30	Gender: <i>N</i> = 29 Male; 1 Female Age: <i>M</i> = 35  Ethnicity: 20 African Americans, 6 Hispanics or Latinos, 1 Caucasian, 1 ½ African American ½ Native American, 1 ½ African American ½ Irish, 1 ½ Korean and ½ Polish Education: 9 none, 4 high school diploma, 11 college experience, 1 associate degree, 5 bachelor degree.  Follow up: 19 members of the above sample. No demographics.	1. Motivations: Disloyalty, lack of social support, incarceration, victimisation, violence, spirituality, parenthood.  2. Former Gang Members: A consensus does not exist for a definition of what constitutes a former gang member.  3. Residual effects: Symbols, demeanour, worlds view, unresolved trauma.

Article	Study Design	Research Aims/Hypotheses	Sample Size	Participants	Findings
Decker et al (2014)	Mixed Methods	<p>1. What is the general process undertaken by leaving a gang</p> <p>2. What snags and pulls emerge</p> <p>3. How is the transition out of the gang affected by others' recognition that they are a former gang member</p>	260	<p>Gender: <i>N</i>= 260: 86.2% Male. No female data</p> <p>Age: <math>\bar{x}</math> 29.5. Age at which they left the gang: <math>\bar{x}</math> 23.3</p> <p>Ethnicity: Black 40%, Hispanic 48.8% and 11.2% not recorded.</p>	<p>1. Stages of disengagement: First doubts, anticipatory socialisation turning points such as violence or positive family roles models and post exit validation from other law abiding support mechanisms.</p> <p>2 Factors supporting disengagement; Having a family, job, partner, church leaders, school, Criminal Justice System and service agencies.</p> <p>3. Some of the pressures placed on former gang members; continued attacks from rival gang members and police harassment.</p>

Article	Study Design	Research Aims/Hypotheses	Sample Size	Participants	Findings
Gormally (2015)	Qualitative	To understand the desistance process in young people	37	<p>Gender: <i>N</i>=15; 13 males 2 females</p> <p>Age: not consistently ascertained. Approximation between 14-26</p> <p>Ethnicity not reported</p> <p>Sample also included agencies involved with gang members</p> <p>6 Youth Workers</p> <p>1 Church Worker</p> <p>12 Community Residents</p> <p>1 Statutory Agency</p> <p>2 Community Police</p>	Age is a central finding aiding desistance. A change in personal focus impacted on why young people choose or had the opportunity to stop was also noted; consequential thinking, responsibility such as parenthood, economic and social opportunities with peers.

Article	Study Design	Research Aims/Hypotheses	Sample Size	Participants	Findings
Harris et al. (2011)	Qualitative	<p>To understand the violence carried out by prisoners identified as street gang members. Specific focus:</p> <ol style="list-style-type: none"> <li>1. What is a gang</li> <li>2. Factors motivating to join a gang</li> <li>3. Factors maintaining a gang</li> <li>4. Factors associated with desistance</li> </ol>	38	<p>Gender: <i>N</i>= 38 Males.</p> <p>Age: <math>\bar{x}</math> 26.4 M: 23</p> <p>Ethnicity: 17 Black British Caribbean, 10 Black British African 4 Black British other origins, 3 White, 2 Asian, 1 Mixed White and Black Caribbean</p> <p>1 no ethnicity recorded.</p>	<ol style="list-style-type: none"> <li>1. Differing views about a definition</li> <li>2. Money linked to survival, quick and easy money or part of a business, protection to avoid victimisation, connectedness, sense of belonging, status and respect.</li> <li>3. Gang affiliation, loyalty, force of habit and being stuck.</li> <li>4. Maturation and valuing a change in direction. New roles (fatherhood), forced re-evaluation (let down or abandoned).</li> </ol>

Article	Study Design	Research Aims/Hypotheses	Sample Size	Participants	Findings
Munoz (2014)	Qualitative	To explore the internal and external factors that contribute to ex-gang members being successful at exiting a gang	8	<p>Gender: N= 8 Males</p> <p>Ages: 25-49</p> <p>Ethnicity: 4 Chicano, 3 Mexicano, 1 Hispanic, 7 born in USA and 1 born in Mexico</p> <p>Education levels: General Educational Diploma to Graduate School. No specifics recorded</p> <p>All were fathers</p>	<p>1. Risk factors for joining a gang: Neighbourhood (high crime rate and low socioeconomic status) and family (abusive father, family gang members, lack of communication).</p> <p>2. Factors that may have served as protective factors Family (supportive mother, extended family), parental expectations (rule setting and ethics)</p> <p>3. Maintenance factors whilst in a gang: Positive Aspects (belonging, popularity, self-esteem), Negative consequences (loss of friends, trauma)</p>

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Disengagement factors: Family (meaningful and positive support and partner), mortality (perception of losing life, loss of friends) and outside support (Counsellors, religious leaders, friends), physical removal (moving away, active service, fading out)

4. Maintenance as an ex-gang member: Family (Having a child), shifting identity (culture, having a job and gaining an education), hope (increase in self-worth).

Article	Study Design	Research Aims/Hypotheses	Sample Size	Participants	Findings
O'Neal et al (2016)	Cross Sectional	Do gendered conditions and circumstances contribute to female gang disengagement.	143 ex-gang members (Male and Female)	Gender: $N= 143$ ; 108 Males and 35 Females  Age at Interview Males: $\bar{x}$ 30.40 Females: $\bar{x}$ 30.29  Age left gang: Males: $\bar{x}$ 24 Females: $\bar{x}$ 20.99  Ethnicity: Male: Black ( $\bar{x}$ 25.93) and Hispanic ( $\bar{x}$ 63.89), Female Black ( $\bar{x}$ 28.57) and Hispanic ( $\bar{x}$ 68.57)	1. No statistical differences found between females and males for why they left a gang or for factors helping to transition out. A statistical significant difference was found for the concerns held about leaving a gang. Females were more fearful of retribution for leaving.  2. Factors found to motivate individuals to leave: Violence perpetuated towards them or others, police harassment, employment, children, family members left the gang, gang disbanded, partner, criminal sanctions, moving areas and losing interest with this way of life.

Article	Study Design	Research Aims/Hypotheses	Sample Size	Participants	Findings
Rice (2015)	Qualitative	<p>Exploring ex-gang members experiences to understand</p> <p>1) What factors led to gang youth's decision to leave</p> <p>2) What challenges were faced</p> <p>3) What support structures were utilised</p>	10	<p>Gender: <i>N</i> = 10 Males</p> <p>Age: 22</p> <p>Ethnicity: 5 African American, 3 Hispanic, 2 Caucasian.</p> <p>Educational Achievement: <math>\bar{x}</math> 11 years of schooling</p>	<p>1. Factors led to disengagement: Sense of belonging with a meaningful other such as family, partner or community support such as probation, priest or social worker. Forced separation such as prison allowed for self-reflection on whether gang life was benefiting them. Experiencing a traumatic event such as seeing someone else being the victim of violence or themselves being the victim also led to a re-evaluation about whether to stay in their respective gang or to leave. Leaving the neighbourhood had also been a contributing factor in aiding the desistance process.</p>

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2. The challenges faced by those choosing to leave were fear of physical harm, grieving the losses as a result of gang life i.e., lack of schooling, employment and ties with family and having to start over.

3. Support from family, peers or other agencies and employment were considered key to aiding the desistance process.

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Table 4

*Quality analysis and methodological differences among the identified studies*

Article	Quality Score	Method of determining street gang membership	Attrition & dropout rates & participant retention	Measurement/ Analysis Used	Strengths/Weakness'
Bubolz (2014)	Score: 92.86%	Self-nomination	Not detailed	Grounded Theory	<ul style="list-style-type: none"> <li>+ Analysis appropriate as topic is a relatively under researched area.</li> <li>+ Provides understanding and description of the participants' personal experiences.</li> <li>+ Codes/Themes inputted into a software package, reducing researcher bias/subjectivity</li> <li>+ Described the recruitment process in detail.</li>   <li>- No information on what it meant to be affiliated to a gang.</li> <li>- Over-represented African American sample.</li> <li>- Limited generalisability as one state in USA sampled.</li> </ul>

Article	Quality Score	Method of determining street gang membership	Attrition & dropout rates & participant retention	Measurement/ Analysis Used	Strengths/Weakness'
Decker et al. (2014)	Score: 71.42%	Self-nomination	Statement suggesting less than 3% refused to participate. Some declined to answer specific survey questions. No figures given	Quantitative: Paired Sample <i>t</i> tests and logistical regression  Qualitative: NVIVO software. Not specified further	<ul style="list-style-type: none"> <li>+ Relatively large sample</li> <li>+ Clear link between hypothesis and theory.</li> <li>+ Study design allowed the researcher to gain a rich data set and could corroborate with statistics. This will help contribute to the research on gang desistance</li> <li>- Whilst female data cited, it did not specify this sample's characteristics.</li> <li>- Limited information on dropout rates.</li> <li>- Generalisability limited as sample was youth gangs.</li> <li>- Did not provide in-depth information on the analysis used, making replication difficult.</li> </ul>

Article	Quality Score	Method of determining street gang membership	Attrition & dropout rates & participant retention	Measurement/ Analysis Used	Strengths/Weakness'
Gormally (2015)	Score: 64.28%	Self-nomination	Not discussed	Iterative	<ul style="list-style-type: none"> <li>+ Incorporating community input enables a broader contribution to be made to the disengagement literature.</li> <li>+ Highlights key findings for youth gang desistance in a UK sample which has rarely been studied</li> <li>+ Provides understanding and description of the participants' personal experiences.</li> <li>- Small sample size, reducing the generalisability of findings.</li> <li>- Not clear if coding was subjected to reliability measures.</li> <li>- Demographics not clearly detailed.</li> <li>- Attrition rates not discussed.</li> </ul>

Article	Quality Score	Method of determining street gang membership	Attrition & dropout rates & participant retention	Measurement/ Analysis Used	Strengths/Weakness'
Harris et al. (2011)	85.71%	<p>Researchers reviewed information held on a database and cross referenced with Hallsworth and Young's gang definition.</p> <p>Excluded from sample if evidence was not substantial</p>	<p>77 consented of which 39 declined to take part 17 impractical to reach 13 transferred prisons 12 could not be located 9 were released 5 posed safety concerns and could not be seen 3 were not accessible due to the prison.</p>	Interpretative Phenomenological Analysis (IPA)	<p>+ Participants were able to talk freely to gain a richer data set</p> <p>+ Drop out and attrition rates well explained</p> <p>+ First to use an English sample which has practical implications to inform Criminal Justice System and treatment interventions</p> <p>- Recruitment of gang members drawn from existing records which can be misleading if not all information is included.</p> <p>- Limited generalisability as taken from a specific area and a prison sample that had been in a street gang rather than those in community.</p> <p>- Lacks information regarding ethical considerations such as how consent was gained.</p>

Article	Quality Score	Method of determining street gang membership	Attrition & dropout rates & participant retention	Measurement/ Analysis Used	Strengths/Weakness'
Munoz (2014)	Score: 78.57%	Self-Nomination	Reported some potential participants did not feel comfortable and chose not to participate. No further details	Interpretative Phenomenological Analysis (IPA)	<ul style="list-style-type: none"> <li>+ Clearly explained methodology and data analysis.</li> <li>+ Rich detailed data from participants on their personal experiences.</li> <li>+ Internal reliability on data set was attempted by a separate researcher in order to validate the themes produced.</li> <li>- Specific sample required and so not representative of the wider population.</li> <li>- Small sample size difficult to generalise</li> </ul>

Article	Quality Score	Method of determining street gang membership	Attrition & dropout rates & participant retention	Measurement/ Analysis Used	Strengths/Weakness'
O'Neal et al. (2016)	Score: 64.7%	Participants were from a community based programme designed to help street gang members and ex street gang members. Therefore, already defined by the courts as street gang members.	Less than 3% - no further details provided	<i>t</i> tests and logistic regression	<p>+ Dependent and Independent variables clearly detailed and how measured. However, confounding variables not considered.</p> <p>+ Only one statistical gender difference found between participants. This may lend further support to existing research that there are more similarities between genders.</p> <p>- Focus was on female gang members.</p> <p>- Sample size unequal and not representative.</p> <p>-Drop Out/Attrition rate not discussed in detail.</p> <p>-Interview strategy changed during the first round of interviews. Different research staff conducting potential for interview bias</p> <p>-T-test scores are not clearly reported.</p> <p>- Cannot infer causation.</p>

Article	Quality Score	Method of determining street gang membership	Attrition & dropout rates & participant retention	Measurement/ Analysis Used	Strengths/Weakness'
Rice (2015)	Score: 92.85%	Self-nomination from an advert	Not detailed	Interpreted using theoretic and open codes followed by inductive reasoning.	<ul style="list-style-type: none"> <li>+ Ethical issues clearly stated and how they were managed.</li> <li>+ Provides understanding and description of the participants' personal experiences.</li> <li>+ Findings lend support on expanding this field and specifics how this could be a prospective longitudinal study.</li> <li>- Analysis was not subjected to reliability measures.</li> <li>- Sample not representative as all located from one area.</li> <li>- Generalisability of findings difficult due to small sample size.</li> </ul>

## 2.4.1 Descriptive overview of the results

### 2.4.1.1 Participants

Participant recruitment was described fully in all seven studies and this was considered a strength within the research. However, sampling methods varied with five using a type of purposive sampling such as a snowball strategy (Bubolz, 2014; Decker et al., 2014, Munoz, 2014; Harris et al., 2011, O'Neal et al., 2016) and two used an opportunistic sampling method (Gormally, 2015; Rice, 2015).

When considering appropriate sample sizes, the size should be informed primarily by the research objective, research question and the research design (Onwuegbuzie & Collins, 2007). In relation to qualitative research designs, Glaser and Strauss (1967) argue that data collection should cease when data saturation occurs. This means it is no longer considered necessary to add more participants to the study as the results do not achieve additional perspectives or information. Other guidelines have also been recommended for particular qualitative analysis. For Grounded Theory, Morse (1994) has suggested 30 - 50 interviews and Creswell (1998) suggests only 20 - 30. In contrast for phenomenological studies, Creswell (1998) recommends 5 to 25 and Morse (1994) suggests at least 6. Applying these principles to the five qualitative studies, only three are deemed sufficient (Bubolz, 2014; Harris et al., 2011; Munoz 2014), although data saturation was not detailed as a reason for the sample total. The remaining two studies (Gormally, 2015; Rice, 2015) were considered to have a smaller sample size. Therefore, whilst disengagement factors have been extracted, the robustness of these findings and the ability to generalise to a wider gang population is reduced.

O'Neal et al. (2016) used a cross-sectional design and whilst the total sample was deemed adequate it was not equally representative of male and females. Whilst they acknowledged this, they argued that as the focus was on gender, the sample chosen included more female ex-gang members than any other study before. Decker et al. (2014) used a mixed methods approach and as such the determination of an appropriate sample size requires a broader integrative perspective. Additional questions posed in the wider research design literature is whether it is better to have a small manageable sample for conducting in-depth qualitative analyses or favour a larger sample size (40–200) for conducting reliable multivariate statistical analyses (Gelo, Braakman, & Benetka, 2008; Yoshikawa, Weisner, Kalil, & Way, 2008). Therefore, it would appear that the main focus of Decker et al (2014) was to gain as large a sample as possible (i.e.  $N=260$ ).

The cumulative sample in all seven studies was 500 street gang members. It is not possible to provide a gender breakdown on account of Decker et al.'s study (2014) detailing their male sample in the form of a percentage and not specifically reporting female data. Participant demographics were detailed in all of the studies to some extent. The most commonly cited variables were age and ethnicity, with the average age of participants being over 20 years old and in descending order the proportion of participants included in the study were African American, Black Caribbean, Hispanic, Caucasian and mixed heritage. It is important to note that Gormally (2015) provided an estimation of age and did not cite the ethnicity of her participants. This again raises the issues of generalisability for the overall street gang member population and makes it difficult for the research to be replicated or comparisons drawn.

Three studies considered educational level, one detailed conviction data and one outlined if the participants had children, although there was no rationale for why these variables were reported. None of the studies considered more explicit tests of intellectual functioning. This would be important to ensure participants were able to understand the aims of the research and the questions posed to them as well as the researcher being confident their participants had capacity to give informed consent. In turn this would also prevent bias within the sample.

#### 2.4.1.2 Measures

As detailed, there is not a general consensus on the definition of a street gang member. Six of the studies used self-nomination whereby participants answered a series of questions such as “Have you ever belonged to a street gang?” in order to be included in the study. In contrast, Harris et al. (2011) focused on individuals who were detained in custody and identified street gang members through file information and applied this to the Hallsworth and Young’s (2006) gang definition. They define a gang as “a relatively durable predominantly street-based group of young people who see themselves (are recognised by others) as a discernible group for whom crime and violence is intrinsic to identity and practice” (p. 4). Without substantiated evidence of gang membership or association, the participant was removed from the sample.

#### 2.4.1.3 Quality of studies

The quality assessment scores achieved from the seven studies, as detailed in Table 4, did reveal a disparity regarding quality. It is also important to highlight that the three studies which scored highest were either unpublished theses (Bubolz, 2014; Rice, 2015) or classified as grey literature (Harris et al., 2011). Therefore, this strengthens the argument as to why a wider scope of the literature was warranted for this review.

The two key weaknesses in the studies were small sample size and the recruitment of participants was heavily weighted to specific locations and ethnicities. The majority of the studies reviewed were undertaken in the United States of America (Bubolz, 2014; Decker et al., 2014; Munoz, 2014; O’Neal et al., 2016; Rice 2015). The remaining two studies were undertaken in Scotland (Gormally, 2015) and England (Harris et al., 2011). Furthermore, as detailed the majority of participants identified as Black Caribbean, African American or Hispanic and this is a weakness because this may not be representative of street gangs globally.

#### 2.4.1.4 Overview of findings

All seven studies detailed the analytical approach taken and were deemed appropriate for the design of the study. Three studies provided a comprehensive level of detail regarding their analytical procedures in order for replication and full critique (Bubolz, 2014; Harris et al., 2011; Munoz, 2014). Studies scoring lower in this area were a result of the qualitative method used being supported by computer software. Therefore, it was not possible to understand how the results were supported by the analytic process. In turn, this limits the confidence that can be attributed to the findings. Nevertheless, the findings have enabled the wider literature to be drawn together which in turn has provided the first detailed overview of the factors involved in why individuals choose to disengage from street gangs. All studies supported the idea that the decision to leave a gang is unique to the individual and should take into account their differing experiences. Furthermore, this transition appears to produce an internal turmoil for individuals as they question their existing identity. These findings strengthen existing research that leaving a gang is a complex process and cannot be attributed to one sole reason; rather there are overlapping themes (Decker & Lauritson, 2002; Pyrooz et al., 2010).

Table 5 reports the individual factors found within the studies which also lend support to the idea of a push and pull paradigm already cited within the literature (Decker & Van Winkle, 1996; Harris, et al., 2011). It is important to note that less commonly found factors for leaving the gang were burnout, police pressure, family members leaving the gang and dissolution of the gang. These were only cited in O'Neal et al.'s (2016) study and so it is difficult to make any inferences. Therefore, they are not discussed further.

Table 5

*Factors identified from the literature review for leaving a gang*

	Push Factors				Pull Factors					
	Criminal Justice Sanction	Disillusionment	Maturation	Victimisation	Job/ Education	Move	Parenthood	Religion	Significant Other	Self- Reflection
Bubolz (2014)	X	X		X			X	X		
Decker et al. (2014)	X	X	X	X			X		X	X
Gormally (2015)			X		X	X			X	X
Harris et al. (2011)	X	X	X				X		X	X
Munoz (2014)				X		X	X	X	X	
O'Neal et al. (2016)	X	X	X	X	X	X	X		X	
Rice (2015)	X	X		X		X			X	X
<b>Total</b>	<b>5</b>	<b>5</b>	<b>4</b>	<b>5</b>	<b>2</b>	<b>4</b>	<b>5</b>	<b>2</b>	<b>6</b>	<b>4</b>

## 2.5 Discussion

### 2.5.1 Themes within the literature

Table 5 depicts a variety of factors that emerged from the seven studies included in this review. In order to expand on these findings, this review has grouped some of the factors together which share a common theme.

#### 2.5.1.1 Significant others

Having some form of support was considered essential by street gang members for aiding the process of transitioning out of their gang. Having an intimate relationship and getting married contributed to individuals seeing the associated consequences of what their behaviour was doing to their partners (Decker et al., 2014). Therefore, having a significant other in their life led to a change in how they viewed their behaviour. Munoz (2014) also highlighted that partners appeared to aid encouragement and motivation to pursue alternative goals such as education. These findings appear to dispute Moore's (1991) conclusions that marriage is not a significant factor in encouraging individuals to leave this lifestyle behind. However, it is still important to consider the quality of these relationships, in order to confirm a link with disengagement. Street gang members also regarded other family members as key in their decision making. Decker et al. (2014) reported that some gang members found that, upon being the victim of violence, the realisation of what this would do to their parents prompted doubts in their mind; "when I got shot it really brought stress to her and what not, but the major influence was my mom prayin for me that I came home safe that did it" (p. 275). Family members also enabled further opportunities to help with the disengagement process including providing employment and accommodation (Munoz, 2014; Rice, 2015).

It is also important to highlight that six of the studies also considered that having a person outside of the family unit had helped support them to make the decision to leave a gang. This varied from counsellors to religious leaders who had invested time which, in turn, helped the gang member to feel important, acknowledged and valued. Moreover, talking through violence and their lifestyle, without being judged gave the impression people were not giving up and instilled hope that a meaningful future could be achieved. The exception was O'Neal et al. (2016), who found that the vast majority of those they spoke to indicated that social service agencies played no role. This was surprising given that the gang members who were interviewed were having contact with such services. Munoz (2014) and Rice (2015) also found that peers who had shared similar experiences could equally play a role in the disengagement process. Gang members in both studies provided qualitative accounts of how they had been given advice by current and former gang members which in turn contributed to the realisation of the situation they were in. Statements such as "you're a smart kid man, you can actually do something with yourself" and "He was in the cell a few down from me and he was like what are you doing with your life, so I started to think about changing". This idea of peer guidance was also cited within Harris et al. (2011) who found that individuals who had already made the transition out of a gang, expressed goals of becoming positive mentors to others in order to help them out of gang culture. Therefore, this provides the argument that both informal support, such as a peer, or formal support like, a probation officer, could help provide support to those who want to disengage.

Religious leaders were also highlighted as being central. Bubolz (2014) reported that gang members shared how religious leaders had helped them to become interested in faith and the realisation that their current lifestyle was detrimental and

opposite to their new found beliefs. Furthermore, Decker et al. (2014) reported that guidance from a spiritual leader had usually occurred following a crisis or trauma. Therefore, it could be inferred that both the external event as well as the support had helped in making a decision. Spirituality as a factor for disengagement is also supported within the existing research on criminal desistance (Giordano, 2010). Individuals are considered to use religion as a form of emotional support which helps to promote cognitive dissonance.

#### 2.5.1.2 Parenthood

Five of the studies (85%) were consistent in acknowledging that an increase in family responsibilities, such as becoming a parent, facilitates gang exit. O'Neal et al. (2016) reported that both female and male gang members, on learning they were to become parents, started to doubt whether the lifestyle they were leading was beneficial. As the pregnancy continued, this strengthened their resolve to desist. Within the wider gang literature (Decker et al., 2014; Fleisher & Krienert 2004; Hagedorn, 1994), parenthood is widely referenced as factor which helps an individual to see that they have more to live for than just residing with a gang. Moreover, individuals believe they have a new identity as a parent which motivates them to lead a more sustainable life trajectory (Moloney et al., 2009). Therefore, it could be argued that becoming a parent means there is an increase in responsibility which contributes to a level of emotional growth and maturity. This was evident in the Decker et al. (2014), Harris et al. (2011) and Munoz (2014) studies where gang members believed that they chose to leave their gang lifestyle in order to protect their children from harm and ensure they were a good role model. Finally, Bubolz (2014) outlined how gang members found that becoming a parent distracted them from their daily activities as they had to care for their children which in turn meant they spent less time with their peers.

### 2.5.1.3 Victimization

Research has found that violence and victimisation can serve a dual purpose of both increasing and decreasing an individual's commitment to a gang (Decker & Lauritsen, 2002). The studies reviewed found that motivations included fear of future violence (from either members of their own gang or rival street gang members), vicarious victimisation (seeing a friend or family member injured or killed) and direct experiences with violence (being injured by either individuals from their own gang or a rival gang). Some considered that having gone through a near death experience had provided the realisation that the rhetoric and bravado this lifestyle had offered them was not worth the sacrifice. Additionally, Decker et al. (2014) found that some chose to leave because physical injuries meant that they could no longer be efficient as a gang member. One gang member reported damaging their "trigger finger" and as such could not use a firearm. Therefore, this suggests that rather than the experience of trauma or victimisation, they left the gang in order to avoid future harm.

Similar findings from this review have been found in the wider research, with the impact of violence resulting in individuals becoming tired of leading a chaotic lifestyle (Decker & Van Winkle, 1996) to being directly motivated to leave after witnessing a traumatic event (Moore, 1991) or being the victim of violence (Vecchio, 2013). Within the qualitative research studies, this was seen by street gang members making statements such as "After my brother got shot, I started thinking hard about everything that was going on". This suggests that following an event of this nature, feelings of disillusionment occur and the process of wanting to leave this lifestyle behind starts.

#### 2.5.1.4 Disillusionment

Disillusionment was cited within five of the studies whereby gang members felt betrayed or abandoned by their gang when they needed them the most. Bubolz (2014) found that 27% of his sample described how the lack of social support from street gang members whilst they were in prison made them realise who was there for them and who was not. Therefore, this perceived loyalty that had contributed to remaining in the gang had not been reciprocated leading to feelings of abandonment. This perceived loyalty was also expected to extend to their family members being provided for. When this did not occur, this started to facilitate doubts about remaining within the gang. Harris et al. (2011) labelled this idea as ‘forced evaluation’ as it had encouraged the individual to recognise that the strong bonds they once perceived that the group afforded them were in fact weak. Finally, Rice (2015) found that disillusionment contributed to gang members re-examining their own life which in turn led to them wanting to find meaning and belonging from other sources such as employment, marriage and religion. Subsequently, these findings again help strengthen the idea that disengagement from a gang is multifaceted.

#### 2.5.1.5 Maturation

Closely related to disillusionment is the idea of ‘Ageing out’ of a gang. Both Decker et al. (2014) and Harris et al. (2011) found that individuals considered that they had joined gangs as a result of being young. Therefore, as they became older they realised that there was more to experience in life than just being in a gang. Additionally, Gormally (2015) suggested that ‘growing out of the gang’ was the most commonly cited reason when asking professionals who worked with this group of individuals. She expanded on this point to consider how gang members will not only physically mature but also go

through a process of symbolic maturation. This outlines how the individual begins to mature as they take on more responsibilities, opportunities and new social roles.

Opportunities such as seeking employment and education were cited by street gang members within the studies (Gormally, 2015; Munoz, 2014; O'Neal et al., 2016) as supporting this symbolic maturation. Therefore, there is the argument that investing trust and promoting responsibility in young gang members will help provide alternative ways to achieve their goals so that disengagement can be facilitated.

#### 2.5.1.6 Physical removal

All seven studies found that when ties were severed to their gang by some external circumstance, this contributed to the individual making a decision to leave the gang. Examples cited were moving to a different area (Gormally, 2015; Munoz, 2014; O'Neal et al., 2016; Rice, 2015), joining the military (Munoz, 2014) and receiving a criminal sanction (Bubolz, 2014; Decker et al., 2014; Harris et al., 2011; Munoz, 2014; O'Neal et al., 2016; Rice, 2015). Particular emphasis was placed on being sent to prison as a key factor in choosing to disengage from a gang. Harris et al. (2011) concluded that those they interviewed believed there is the expectation in prison that they will experience change either through attending offending behaviour programmes or through feeling forced to evidence this change in order to progress through the prison system. However, in order to facilitate this process of change, support from family, peers and professionals was deemed key.

#### 2.5.1.7 Self-reflection

Although this review has focused on a number of external factors that contribute to gang disengagement, it is important to reflect that in some of the qualitative studies gang members were keen to highlight the impact their own reflections had on their

decision to leave their gang. This is fundamental given personal strength and choice play a significant part in the process of desistance (Harris et al., 2011). Rice (2015) reported that individuals had found that whilst in prison and separated from the gang lifestyle they could assess their life, the choices they were making and the consequences of their actions. Moreover, this led to a re-evaluation of their goals and priorities and how remaining in a gang would not support this. Individuals also spoke about how these changes contributed to them wanting to establish a new identity free from the gang label as this helped to distance themselves further from their previous lifestyle (Gormally, 2015; Harris et al., 2011; Rice 2015).

## 2.5.2 Strengths and limitations

### 2.5.2.1 Bias

This is the first systematic review to be conducted in exploring whether disengagement factors for leaving a gang can be identified and summarised within the literature; as such, this review has contributed to the existing gang literature. As this is an evolving area, it could be argued that excluding all but the most methodologically robust studies means important research findings may not have been included. Nevertheless, by utilising a systematic approach, clarity has been provided as to why the studies have been selected, demonstrating a lack of bias (Sayers, 2007). In an attempt to reduce potential bias, multiple databases were searched, broad search terms were included, papers hand searched for their applicability and both inclusion/exclusion criteria and quality assessments were applied. Furthermore, a decision was taken to include unpublished theses on the basis that the inclusion of published studies only could skew and narrow the findings. As such, the incorporation of unpublished studies has allowed for a more comprehensive, eclectic and unbiased review (Egger,

Dickerson, & Smith, 2007). Only studies written in the English language were included which could have led to relevant studies being excluded. Additionally, not all relevant studies may have been included in the final selection as one researcher was contacted to gain full access to their study and a response was not received. Furthermore, some articles were not available online or via institution libraries.

#### 2.5.2.2 Methodological issues

Quality assessments were utilised in this review in order to maximise the inclusion of methodologically valid studies. A number of the studies included in the review recruited participants from community samples. Only Bubolz (2014), Munoz (2014) and Rice (2015) recruited participants who were not actively linked to the Criminal Justice System. Decker et al. (2014), Gormally (2015) and O'Neal et al. (2016) used community samples who were involved in community outreach programmes and Harris et al. (2011) used a custodial sample. Therefore, whilst the study population assessed was realistic, the samples obtained may not be representative of the general street gang member population. It is also difficult to draw comparisons as the samples were heavily weighted by those who identified as Black Caribbean, African American or Hispanic. Therefore, it would be important for future studies to sample a variety of demographics in order for cross cultural comparisons.

A general limitation in the majority of studies in this review is the use of self-report for gang membership with formal validation not being conducted. However, this approach is considered the most reliable way in which to assess if an individual affiliates with a gang (Esbensen et al., 2001). This is not without challenges, particularly when wanting to generalise and make cross cultural comparisons as the definition of what it means to be in a gang varies (Aldridge, Medina, & Ralphs, 2008).

Moreover, self-nomination is also based on the perception of the individual. Therefore, the likelihood of over-reporting or under-reporting may have been observed which would affect the findings of research. Harris et al. (2011) chose to identify street gang members from file information and compare this to an existing definition within the literature. This approach may have captured individuals who themselves did not perceive that they were in a gang but relies on the level of evidence available and the researcher's perception that they fit the definition.

## 2.6 Conclusion

The current review examined the literature in order to ascertain whether disengagement factors for street gang members could be synthesised from the literature. A total of seven studies were included that met the inclusion/exclusion criteria and scored greater than 60% on the quality assessment. It is important to recognise that the quality of reviewed studies varied and the inclusion of seven studies means that to make firm conclusions would be premature. Additionally, a stark finding from the review is the scarcity of research investigating gang disengagement in the UK, despite previous research highlighting this to be an increasing problem (Mares, 2001; Shropshire & McFarquhar, 2002). Nevertheless, this review has enabled the wider literature to be drawn together in order to provide an overview of the factors which are considered to contribute to the decision making process for why street gang members disengage.

The review also illustrates how all studies found that whilst gang membership continues to be a unique and complex phenomenon, individuals who have distanced themselves from gang life have done so because it no longer serves their needs, values or priorities. Therefore, they must have a desire to leave a gang, which may be

prompted by a life changing event or difference in circumstances. They will then require an alternative path to follow such as gaining legitimate employment or education in order to continue to maintain this process of desistance. Therefore, it is suggested that gang disengagement is not overly dissimilar to the general criminality desistance process (Maruna, 2001). Moreover, as several factors in combination were cited as to why gang members disengage, this strengthens the idea that disengagement should be viewed as a combination of individual and structural factors where true insight can only be gained from the subjective perspective of the individual. Thus, lending support for Maruna's (2000) narrative perspective. Another factor to be highlighted has been the role self-reflection plays in disengagement and that through this process individuals no longer self-identify with being a member of the gang. This new identity formation was found to be strengthened when change had been recognised by others. Therefore, the support of others can play a crucial role to help validate the changes made by the individual which in turn can further their motivation to desist. This idea also calls into question whether labelling individuals as gang members and former gang members is helpful. Consideration also needs to be given when individuals' access interventions as the professionals involved can help to develop and reinforce a positive identity (Maruna, 2001).

### 2.6.1 Implications for future research

This review has been helpful to develop an understanding of why individuals choose to disengage from street gangs. However, the studies examined were mainly based in America with only two studies conducted in the UK. Subsequently, it is clear that there is a need for an increase in UK based studies. Prospective longitudinal studies would offer an increased ability to validate the factors linked to disengagement and cohort studies would identify how the disengagement factors interact and relate to

others over time, which is key given that there is an overlap. Once this is achieved, well designed Randomised Control Tests (RCT's), which focus on targeting these risk factors through interventions, such as those outlined in Chapter Three, may be helpful, especially as there is no published research in a custodial setting in the UK. This could lead to firmer conclusions that the gang problem is being addressed in a more comprehensive way.

Whilst more research needs to be carried out, it is also important to suggest that consistent research needs to be conducted to measure gang membership. The development of a robust gang affiliation measure that could be applied to all research in this area would serve to increase confidence that researchers are selecting participants who meet the criteria of a street gang member. At present, there are a number of definitions which have slight variations in what they consider a street gang member to be. It is also acknowledged that the studies reviewed did not differentiate between the levels of membership in the gang. Research has suggested that individuals can be core or peripheral members (Esbensen et al., 2001, Pyrooz, Sweeten, & Piquero, 2013). This idea of distinguishing between gang members is not dissimilar to the wider offending behaviour literature as detailed in Chapter 1 (Franklin, 2004; Harkins & Dixon, 2013; Moffitt, 1993) on group processes and the roles assigned to individuals (leader or follower) which can determine their offending trajectory. In turn, this raises the question as to whether there are differing criminogenic needs for individuals despite being in the same group. Moreover, Dmitrieva et al. (2014), when comparing gang leaders and gang followers, found those who were leaders were more immersed into living the associated lifestyle, held engrained attitudes to criminality, were highly planned in their criminal activity, exhibited high levels of self-esteem and presented with more manipulative and grandiose personality traits. However, those who were

considered lower level gang members were more impulsive, had weaker values, and experienced difficulties in the ability to perspective take.

Overall, these findings would imply that exploring the differing levels of gang membership in the future could provide insight into whether there are different criminogenic needs according to how engrained the member is. This has interesting implications for future rehabilitative initiatives, i.e., it may be necessary to consider whether to place gang leaders and followers in the same therapeutic group. For example, Etgar and Ganot- Prager (2009) suggest leaders may encourage others to deny or minimise their behaviour or intimidate other group members to their way of thinking. However, it could also be argued that where a leader is undergoing a positive behaviour change themselves, the influence they can exert during an intervention may, in fact, facilitate a positive behavioural change in the follower (Etgar, 2013; Porter, 2008). Further research in this area would hopefully enable a greater understanding as to how the level of gang embeddedness influences the rehabilitative and desistance process and provide further insight into this complex issue.

#### 2.6.2 Implications for practice

As gang violence continues to escalate, policy makers and practitioners are seeking to develop effective interventions and strategies to address the street gang phenomenon. Whilst this review focused on disengagement, the findings gained can still play a vital role in contributing to the design of early preventative measures of those identified as being at risk of joining a gang as well as helping to assist individuals already immersed in this lifestyle.

The theme of maturation and critical reflection within this review supports the idea that engagement might vary at different developmental points for an individual.

Exploring personal motivations as to why individuals are being tempted into this lifestyle might help to identify ways of engaging them in alternative opportunities. For example, this review has highlighted the importance of offering employment, educational or vocational training, apprenticeships and/or basic life skill courses to gang members in prison and on release to help them to see an alternative means in which to express their values or pursue their goals. A 'significant other' such as partner or even a mentor who serves as a role model could also be involved in this process to help reinforce these positive opportunities. It would also be useful to offer training to professionals in the community, such as teachers and/or community leaders, on how to identify and communicate with those vulnerable to joining a gang. In turn, this may help individuals to seek out pro-social options and take more responsibility for how they want to live their life.

These principles could also be applied when professionals notice signs of disillusionment from street gang members either through discussions in meetings or when they engage in prison or community programmes. One of the most cited reasons within this review for leaving this gang lifestyle behind was a result of victimisation. Therefore, it could be argued that following a situation where an individual experiences this, is an ideal time to discuss whether this lifestyle was helping the individual. In turn, this may serve to create ambivalence about being in a gang. Another key theme related to street gang members choosing to leave is having a level of responsibility, such as children. This means they may be more willing to involve themselves in interventions to help with the desistance process at this point in their life more than at any other time. Furthermore, they may be more open to other pull factors noted such as employment, education or engaging in their faith as they feel a sense of responsibility to their child. Given this, it is recommended that these factors are communicated to practitioners in

order to help develop dialogue with those who are vulnerable to joining and for those who are already exhibiting doubts to aid the disengagement process from a gang lifestyle. Furthermore, the findings from this review could be instrumental in helping policy makers and programme developers consider whether changes need to be made to the current suite of prison and community rehabilitation initiatives or whether it is necessary to develop a gang-specific intervention.

## **Chapter 3**

### **Understanding gang membership and the impact of undertaking violence interventions in an adult prison sample**

### 3.1 Abstract

#### Aims

The aim of the current study is to increase knowledge of gang membership by using a forensic sample within the UK. First, the study explored the impact of two generalised violent offender behaviour programmes (RESOLVE and SCP) on both adult violent gang and adult violent non-gang offenders. Second, the study aimed to explore gang members' views following the completion of these programmes in order to gain further insight into what may influence an individual's desire to join a gang as well as the process of disengagement.

#### Method

One hundred and eighteen convicted males from two High Security prisons participated in the quantitative study (40 RESOLVE violent non-gang, 34 RESOLVE violent gang and 22 SCP violent non-gang and 22 violent gang members). All participants completed five psychometric measures which were linked to the treatment needs of both programmes. These were administered prior to and following the completion of the programmes. A paired sample t-test, an independent sample t-test and a mixed ANOVA were then applied to explore the differences in responses both pre and post programme and between the different offender groups. Additionally, nine participants took part in a semi-structured interview post intervention to understand their views of gang membership. Data were analysed, rigorously coded and themes generated in line with the principles of Thematic Analysis.

## Results

Quantitative analysis of the RESOLVE programme showed that both sets of participants were found to have made treatment gains for impulsivity, anger and aggression, and treatment readiness. A statistically significant difference was observed for vengeful thinking, with gang participants showing a greater change in scores than non-gang participants. SCP data showed statistically significant differences post treatment in all five psychometrics; impulsivity, anger, vengeful thinking and beliefs supportive of aggression were lower and an increase in treatment readiness was observed. For non-gang participants, statistically significant differences were found post treatment for impulsivity and aggression. No significant interaction was observed between offender typologies, suggesting that the two groups have similar presentations.

With regard to the qualitative data, three major themes emerged which depicted how members viewed gang membership: what is a street gang; motivators to join; and motivators to disengage. These themes were further sub-divided and discussed at length.

## Conclusions

Evidence suggests that gang members may benefit from generalised violence interventions in the same way as violent non-gang offenders. However, as this is the first study of its kind in the UK, conclusions are tentative and further work is required. The qualitative findings have also added to the limited yet growing evidence base in understanding the psychology of gang membership. Findings are discussed to aid future practice and research.

## 3.2 Introduction

Gang members are deemed to inflict more violence than any other offender cohort (Battin, Hill, Abbot, Catalano, & Hawkins 1998; Decker & Van Winkle; 1996; Klein, Weerman, & Thornberry, 2006). The most recent published National Gang Survey in 2010 (Egley & Howell, 2012) estimated that 756,000 gang members represented 29,400 gangs in the United States of America, meaning that 34% of cities, towns and rural areas were considered to have a gang presence. The impact this can have on communities is significant and it is now well documented that gangs are no longer a unique phenomenon to the USA, with the impact of gang activity being considerable within UK communities (Shropshire & McFarquhar, 2002). Therefore, there is increasing pressure on policy makers and practitioners working directly with gang members to make decisions about how an individual should address their offending behaviour (Skeem, Mulvey, & Lidz, 2000). Whilst initiatives have been put in place to address the wider social and economic damage that generalised violence can have on society, Jolliffe, Faringtonm Piqueroe, MacLeod, and Van de Weijer (2017) outline how it is important to distinguish between different types of offenders in order to tailor their rehabilitation. Therefore, as less attention has been given to understanding and addressing gang related offending, this raises the question as to whether gang members are able to adequately address their risk of re-offending. However, before attention is given to this question, it is first important to understand some of the issues within the literature surrounding gang membership.

### 3.2.1 Defining a street gang

Previous chapters have noted how there has been a plethora of research on understanding what constitutes a street gang. Yet, due to the complexities of gang

activity, a precise singular definition is yet to be agreed (Esbensen, Winfree, He, & Taylor, 2001; Hallsworth & Silverstone, 2009). Gang typologies that have generally been put forward use a stipulative method, meaning individuals are defined in terms of certain properties or characteristics (Brown, 2000; Gordon, 2000; Hallsworth & Young, 2004; Home Office, 2006). For example, a gang member must have criminal versatility (Dukes, Martinez, & Stein, 1997; Esbensen & Huzinga, 1993; Thornberry, Krohn, Lizotte, & Chard-Wierschem, 1993) and be young (Weerman et al., 2009). Yet others have argued that a street gang consists of both adult and young members (Bullock & Tilley, 2002; Goldstein, 1991; Klein & Maxson, 2006; Knox, 2000; Watkins, & Moule Jr, 2014). However, using this method can be restrictive, with several academics and agencies (Hallsworth & Silverstone, 2009; Marshall, Webb, & Tilley, 2005) abandoning definitions as the word ‘gang’ conjures up stereotypes that are potentially misleading. Therefore, it could be argued that there is merit in using a more generalised definition.

Curry, Decker and Egley (2002) argued that individuals do not have to necessarily be a full gang member to have experienced the impact this lifestyle can have. Subsequently, gaining a personal perspective from individuals (Bjerregaard, 2002; Esbensen & Weerman, 2005; Peterson, 2000) and allowing individuals to self-identify as being in a gang is key. For this to be employed, Harris, Turner, Garrett, and Atkinson (2011) advise that there is a need to be aware of the level of subjectivity this methodology can have. Therefore, gaining an objective report of gang involvement from official records alongside self-report would provide a more inclusive and global understanding of gang membership (Wood & Alleyne, 2010). For the purpose of this research, as noted in previous chapters, a broader definition has been employed using Miller’s (1992) view of gang membership. Additionally, participants were asked to

self-nominate based on this definition as well as official records being accessed as a means of cross referencing.

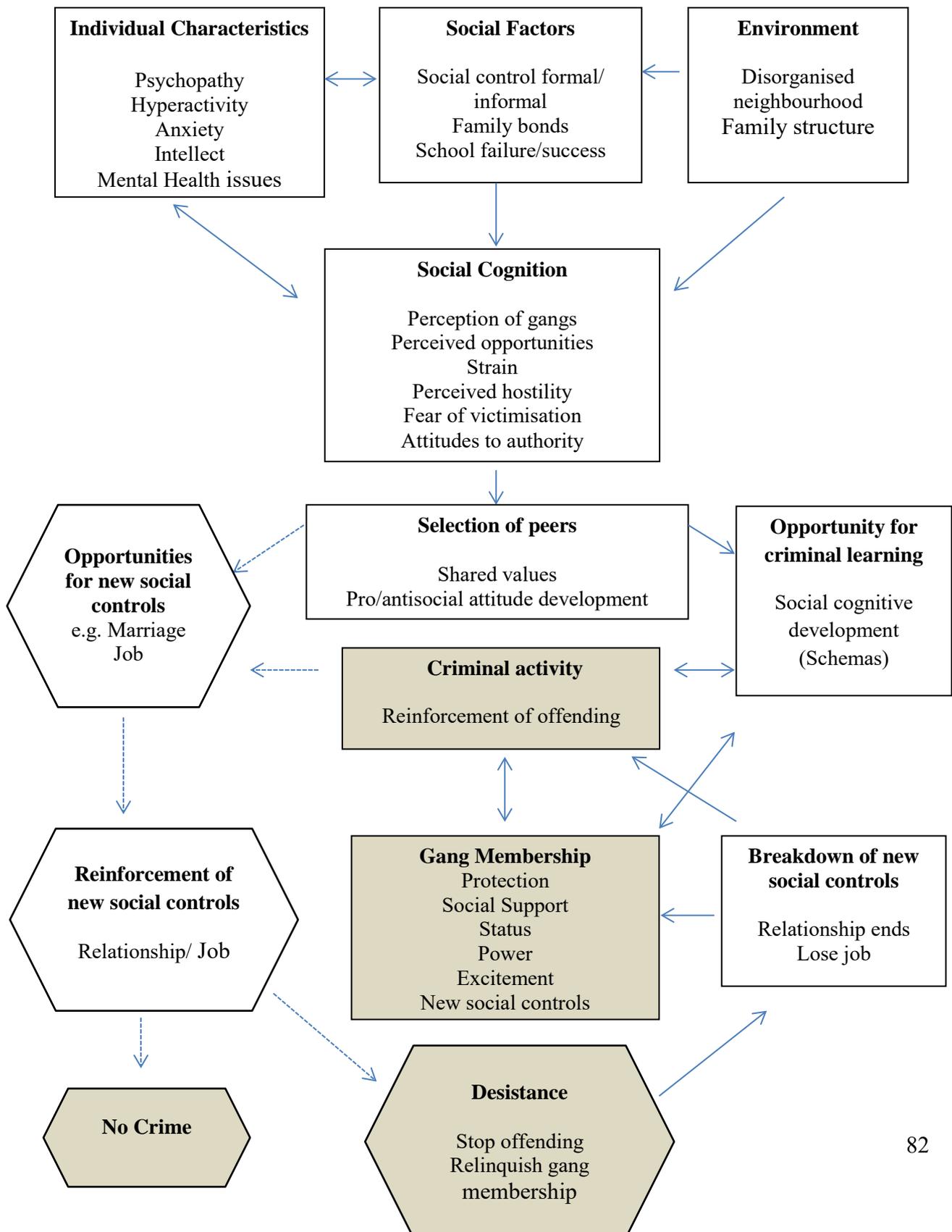
### 3.2.2 Theories of gang membership

Whilst the purpose of this study is not to test a specific theory, in order to understand gang membership, focus is given in this chapter to the most current explanation; Wood and Alleyne's (2010) 'Unified Theory of Gang Involvement'. This was developed through the process of theory knitting which Ward and Hudson (1998) refer to as the process of integrating the strengths from existing theories into a new framework. In turn, it was hoped this way of viewing the process of gang membership would address the criticisms noted within the historical theories in Chapter 1. Moreover, this is not dissimilar to Harkins and Dixon's (2010, 2013) framework for understanding Multiple Perpetrator Sex Offending (MPSO) which also encompasses a multi-disciplinary framework. As shown in Figure 1, Wood and Alleyne's theory considers how social factors (family bonds, schooling), individual characteristics (psychopathy, IQ, mental health problems) and environmental factors (disorganised neighbourhood and family structure) are the starting point for a youth's social development. These can have a causal relationship whereby a combination of any of these factors can lead to gang membership. For example, an adolescent could have stable social and environmental factors such as a strong family bond and/or pro-social neighbourhood but possess individual factors such as high levels of anxiety, hyperactivity and low IQ which may still lead them to become drawn towards anti-social behaviour. It is these factors, which will then influence the development of a youth's cognitive thought process about how they perceive the world and those around them. If there is a significant gang presence within the environment then it is more

likely to shape an individual's attitudes and beliefs more favourably towards gang membership and reduce their willingness to seek out legitimate opportunities.

Figure 1

*Unified theory of gang involvement*



The model also outlines how personal failure at school, in combination with other individual factors mentioned, will serve to increase the likelihood of developing negative perceptions of authority figures.

From these experiences, Wood and Alleyne hypothesise that individuals will be more likely to align themselves with peers who share their own values and mutual thoughts. Should an individual choose to have peers who share pro-social attributes, regardless of the environment, they are more likely to see their ability to engage in legitimate activities. In turn, these continued associations will strengthen their moral standards and help avoid the desire to engage in criminal activity. Therefore, any association with anti-social peers may be a fleeting occurrence and they are likely to continue on a non-criminal pathway. This is not dissimilar to the description Moffitt (1993) gave for Adolescence Limited offenders. However, if an individual during this association continues to be exposed to criminal learning, criminal behaviour is likely to follow. From this the individual will then choose to set aside any pro-social values and reconstruct how they view any harmful behaviour, in a process known as moral disengagement. It is also argued that anti-social peers will serve to provide further criminal learning opportunities and strengthen any underlying anti-social beliefs.

Wood and Alleyne's model differs from other theories in that it states that an individual can be exposed to criminal learning and may choose to offend but will not necessarily become drawn to joining a gang. Therefore, gang membership is likely to occur over and above an underlying involvement in criminal activity such as for protection (Barnes, Boutwell, & Fox, 2012; Coid et al., 2013), social support (Alleyne & Wood, 2014; Weerman, Lovegrove, & Thornberry, 2015), elevated status (Alleyne & Wood, 2013; Dmitrieva, Gibson, Steinberg, Piquero, & Fagan, 2014) and acquirement of power (Strektesky & Pogrebin, 2007). Another significant difference is

that this model also demonstrates how desistance may occur at the criminal activity or gang member stage. For the process of disengagement to start, Aldridge and Medina (2007) outlined how an individual needs to have a reflective thought process about whether the gang is meeting their needs as well as experiencing key turning points and being able to access different opportunities. Emerging literature, detailed in Chapter 2, suggests that factors such as having a significant other in their life (Decker, Pyrooz, & Moule Jr, 2014), parenthood (Moloney, MacKenzie, Hunt, & Joe-Laidler, 2009), spirituality (Decker et al., 2014), maturity (Gormally, 2015) and experiencing victimisation (Decker & Lauritsen, 2002) are key to gang members deciding to leave a gang. Moreover, Decker and Pryrooz (2011) found that gang members tired of the negative consequences such as the threat of arrest and going to prison. Equally, this model highlights how an individual may be drawn back to being a gang member if these legitimate opportunities/controls which strengthened their desire to desist are removed, such as losing a job, or deteriorate over time (relationship instability). Therefore, Wood and Alleyne (2010) concluded that this multi-disciplinary framework is the most viable, at present, to explain the process of gang membership and enable testable hypotheses to make meaningful comparisons between gang members and non-gang members. However, it is acknowledged that further research is required to understand the factors implicated in both the engagement and disengagement stages, with the view to assisting the development of gang rehabilitative initiatives.

### 3.2.3 Gang rehabilitation

Given the escalating problem with gang membership, agencies initially opted to increase punitive efforts by a variety of gang suppression tactics and strategies, especially in America (Archbold & Meyer, 1991; Petersen, 2000; Winfree, Fuller, Vigil, & Mays, 1992). However, Ryan and Deci (2000) argue that whilst punishment

may deter individuals, this change is often weak and short lived and a return to crime to meet their needs is inevitable. Moreover, punitive approaches have been found to have the reverse effect on gang membership with an increase in cohesion and violence being observed (Carlson & Decker, 2005). Therefore, it has been suggested that rehabilitative interventions should be provided as an alternative to static or administrative approaches (Carlson, 2001; Fleisher & Decker, 2001). However, motivation to engage in treatment is crucial to avoid programme dropout (Semiatin, Murphy, & Elliott, 2013; Williamson, Day, Howells, Bubner, & Jauncey, 2003), with treatment gain being most effective when the type of intervention matches an offender's level of readiness to change (Day, Bryan, Davey, & Casey, 2006). Therefore, assessing readiness to change prior to treatment would assist with individuals engaging with programmes to help maintain pro-social behaviours for a longer time (Chambers, Eccleston, Day, Ward, & Howells, 2008; Ryan, Plant, & O'Malley, 1995).

Gang rehabilitation has primarily focused on American rehabilitative initiatives. The Gang Resistance Education and Treatment (GREAT) programme (Esbensen, Osgood, Taylor, Peterson, & Freng, 2002) was developed and implemented across a number of states to encourage gang members to focus on conflict resolution, consequences of crime and drugs, individual responsibilities and dealing with peer pressure. However, it was noted that, when developing the intervention, an understanding of which gang-specific risk factors were being targeted was neglected. As such, programme efficacy has been inconsistent (Esbensen & Osgood, 1999; Palumbo & Ferguson, 1995). Other interventions have been developed although the content does not appear to link specifically to the criminogenic needs of gang members as noted in Wood and Alleyne's Unified Theory. For example, DiPlacdio, Simon, Witte, Gu, and Wong (2006) reported that the Connecticut Department of Corrections

offered a programme for gang members who wished to disengage where they were encouraged to interact with members from other gangs, sign a renunciation form, and learning about cultural awareness and anger dysregulation. Furthermore, no comparison groups were reportedly used in order to evaluate the content (Gaseau, 2002). Schram and Gaines (2005) and DiPlacdio et al. (2006) attempted to address these criticisms and evaluated the efficacy of the treatment of gang members versus non-gang members. Schram and Gaines (2005) focused on the Home Run programme which is a multi-disciplinary approach to identifying and providing a range of treatment options (education, therapy, life skills) and support to youths classified as high risk of becoming involved in serious crime. Findings suggested that criminal recidivism was significantly reduced and improvements in family functioning and schooling were noted in both at risk gang and non-gang offenders. However, given individuals were referred to different agencies rather than a specific offending behaviour intervention, this resulted in difficulty evaluating the programme as well as replicating the study. In contrast, DiPlacdio et al. (2006) opted to explore three specific offending behaviour interventions and compared the recidivism rates of violent gang and violent non-gang offenders who accessed one of these rehabilitative methods and then compared this to those who did not access treatment. The programmes evaluated were the Aggressive Behavioural Control (ABC) programme (which focuses on developing an individual's insight into their criminal attitudes and beliefs, interpersonal aggression, cognitive distortions, and substance abuse) and the Clearwater Sex Offender Programme (which focused on individuals who had engaged in sexually aggressive and deviant behaviours) and the Psychiatric Rehabilitation (PsyReh) Programme (which was for individuals who were suffering with acute mental health problems). Findings suggested that recidivism reduced for both gang and non-gang members after participating in any of

the three programmes, leading the authors to conclude that gang members could benefit from accessing the same generalised treatment as other violent offenders.

Within the UK, McMahon (2013) examined 12 programmes in the community that were aimed at reducing gang and youth violence in the London area. He found that the strongest indication of change came from those who completed comprehensive and multi-agency programmes. However, firm conclusions could not be drawn due to the variance in how data were collected and how the programmes addressed different treatment needs so outcomes could not be measured in the same way.

As detailed in Chapter 1, within the UK Prison Service, accredited interventions are routinely offered to offenders to help them address their criminogenic needs (McGuire, 2002). Currently, to address generalised violent offending, the interventions offered include RESOLVE and the Self-Change Programme (SCP). RESOLVE is a 25 session, moderate intensity, cognitive-behavioural intervention, comprising of 21 group sessions and four individual sessions and aims to reduce violence in medium risk adult male and young male offenders. The SCP is a high intensity, cognitive-behavioural intervention and aims to reduce violence in high-risk adult male offenders, whose repetitive use of violence is part of a general pattern of antisocial behaviour. The SCP takes approximately nine to twelve months to complete and adopts a rolling format. This means participants will join and leave the programme at different stages as determined by the treatment team rather than start and complete simultaneously as RESOLVE is designed. To determine which programme an offender is suitable for, the Offender Violent Predictor (OVP) score from the Offender Assessment System (OASys; HM Prison Service and National Probation Directorate, 2001) is used. For RESOLVE an OVP 2 year % score of between 30 and 59 is required and for SCP an OVP 2 year % score of 60 or above is needed. Both programmes require individuals to

have a current conviction of violence, have motivation to engage and to have been assessed as having a need to develop insight into their behaviour.

Despite the intensity of both programmes differing, they both aim to help individuals explore the role their anti-social beliefs, cognition and emotions can have on influencing their decisions (e.g., to engage in violent behaviour). Techniques are introduced to help individuals identify and restructure their hostile and ruminating thoughts, understand the impact associating with anti-social peers, of using illicit substances and alcohol as well as weapon use on their behaviour. Focus is also given to helping individuals identify protective factors they already possess and offer new cognitive and behavioural skills to help them address their criminogenic risk factors and avoid the use of violence in the future.

Individuals who identify as gang members are routinely referred to either the RESOLVE programme or SCP as a means of helping them to address their use of violence. When comparing the aims of these programmes with Wood and Alleyne's current unified model to explain gang membership, it is clear that some of the criminogenic factors are attended to in treatment. Notably: social cognition; the role of peer influence; understanding their criminal learning; and strengthening protective factors to promote desistance. However, what is less clear is whether exploration is given on either programme to helping the individual understand the specific factors which contributed to them joining a gang such as the need for protection and/or desire for status and power. Moreover, if these are not attended to it may mean the individual is not able to develop insight into how they can achieve these needs in the future without returning to a gang lifestyle.

There also appears to be no published research evaluating the impact these interventions have on those identified as gang members. Therefore, exploring this

further by studying the effectiveness of these two programmes to address these gaps in knowledge is considered beneficial. However, it is important to exercise caution in evaluation studies as any observed behavioural changes may be a result of a variety of factors (Campbell & Stanley, 1963). Therefore, in the current study it was considered necessary to go beyond investigating solely 'what works' by also undertaking qualitative research to advance and contribute to the success of intervention evaluation (Clarke, Simmonds, & Wydall, 2004). It was hoped that the inclusion of a qualitative component would enable further exploration of the factors contributing to gang disengagement in the UK and address some of the gaps in the literature, as highlighted by the Systematic Literature review in Chapter 2. Moreover, undertaking interviews would also help establish if individuals believed there to be any further treatment needs, such as those noted in Wood and Alleyne's model, which could assist the future development of rehabilitation measures for gang members.

### 3.2.4 Research aims and hypotheses

A review of the literature has helped to understand the criminogenic factors linked to both violent gang and violent non-gang offenders. The research to date has primarily been conducted in the USA. Furthermore, whilst the aforementioned literature outlines the criminogenic factors linked to both violent gang and non-gang offenders, less attention has been given to the rehabilitative process for gang members. As such, the current research will be the first of its kind using a sample of adult gang members carried out within a UK custodial environment. A mixed methodology approach will be adopted. The first part investigates the impact of two generalised violent offender behaviour programmes (RESOLVE and SCP) using a sample of adult violent gang offenders and adult violent non-gang offenders. More specifically, the study aims to address the following hypotheses:

Hypothesis One: There will be a reduction in impulsivity following RESOLVE and SCP interventions for both violent non-gang members and violent gang members.

Hypothesis Two: There will be a reduction in anger following intervention for both violent non-gang members and violent gang members.

Hypothesis Three: There will be an increase in treatment readiness following intervention for both violent non-gang members and violent gang members.

Hypothesis Four: There will be a reduction in vengeful/ruminative thinking following intervention for both violent non-gang members and violent gang members.

Hypothesis Five: The effectiveness of the treatment interventions as measured by pre and post psychometrics will differ between violent non-gang members and violent gang members. However, the direction of the effect is not known.

The second part of the study aims to explore narrative accounts of those identifying as gang members. It is hoped that this will provide further insight into gang membership which, in turn, can help inform current practice in working in the field of gang rehabilitation.

### 3.3 Method

#### 3.3.1 Sample

##### 3.3.1.1 Quantitative

Participants were recruited from two High Security prisons (Prison A and B) who had either completed the RESOLVE programme or the SCP two years prior to the point of commencing data collection (March 2016) or had been found suitable and were due to undertake either violence programme up to June 2017. In order to inform the number of participants needed, a priori power analysis was conducted. Cohen's (1992) power primer highlights that to achieve a medium effect at 0.05 across two groups, 64 participants are required. In total, 118 convicted male offenders participated in the study; 40 RESOLVE non-gang members, 34 RESOLVE gang members and 22 SCP non-gang members and 22 gang members. Breaking this down further, 108 were from Prison A and a total of 10 participants were from Prison B. Recruitment at Prison B was hampered due to a number of the scheduled programmes being cancelled during data collection.

The average population of Prison A in the recruitment period was [REDACTED] and for Prison B [REDACTED]. As such, the sample represented 17% and 0.02% respectively, of the overall prison population. The criteria for those housed in either prison are that they are males aged 21 years and above, who are considered high risk to the public or national security, categorised as Category A or B and convicted and serving a sentence of at least four years. All participants had been convicted of violence, with 74% serving a life sentence (Indeterminate Public Protection; IPP or a Mandatory life sentence) and 26% serving a determinate fixed length sentence. Reviewing this further, non-gang members' index offences were: murder (30); Grievous Bodily Harm; (GBH; 15),

Actual Bodily Harm (ABH; 12); and robbery (5). Similarly, gang members' index offences were for: murder (36); GBH (8); ABH (6); and firearm offences (6). Those identified as gang members had also been in a community street gang for at least four years.

#### 3.3.1.2 Qualitative

Male participants who identified as a gang member and had completed either RESOLVE or SCP in the last twelve months in Prison A were approached to take part in the study (25; RESOLVE, 15; SCP). After all were informed, nine self-selected (2; RESOLVE, 7; SCP) and approached the researcher to take part, resulting in 22% of the total participant pool. Breaking this down further, all stated they had been in a street gang for more than six years in the community, seven were serving life sentences for murder and two were serving determinate sentences for firearm offences.

#### 3.3.2 Design and procedure

##### 3.3.2.1 Consent

The Treatment Managers for RESOLVE and SCP at both Prison A and B select group members to attend the programmes, as per their role. The researcher had no control over those who were selected as this was based on those who were referred, engaged in the assessments and met the criteria for a place on the programme. For those that attend, the National Offender Manager Service (NOMS) who oversee Interventions Services seek consent on whether group members are willing to complete five standardised psychometric measures (See Table 1). Those that consented were then approached post programme to complete the measures again. Facilitators of the respective programmes provided the researcher's information sheet and a consent form

(Appendix G and H) to group members outlining the research that was being undertaken and their potential role. At this point, anyone wishing to take part or ask further questions was encouraged to contact the researcher, on the address provided. If a participant did not wish to contact the researcher they were not precluded from the programmes. In order to maximise statistical data analysis, those who had already undertaken the programmes and completed the pre and post psychometrics for either the RESOLVE or SCP were also approached. Respective Treatment Managers have access to the names of those who had completed and slightly amended information sheets and consent forms were given (See Appendix G and H) on the researcher's behalf.

Determining those who would be in the street gang cohort was assessed using Miller's (1992) definition and was achieved one of two ways. Participants were asked to self-report if they considered themselves a gang member by responding 'yes' or 'no' on the consent form to three questions; "*I have friends that are members of a gang*", "*I considered myself as belonging to a gang before I came to prison*" and "*I have been involved in illegal activities as part of this gang*". For those that consented, the researcher then reviewed file information to ascertain if the participant had belonged to a street gang in the community. Self-disclosure, file information alone or a combination of both was used to classify those in the gang cohort. Those without substantiated evidence of having belonged to a gang were placed in the violent non-gang cohort.

When completing the psychometrics, none of the participants were considered to have literacy issues. Participants were sat in the group room at desks and were encouraged by facilitators to take their time over their responses and not to confer with their peers. Facilitators were advised that, should they be asked any questions about the understanding of terms, to avoid giving their own interpretation as this could impact on

participant's responses. Instead a dictionary was provided to the participant where needed. From discussions with facilitators, this was adhered to.

Post hoc psychometric analysis was not undertaken as it is not a current requirement from NOMS Intervention Services. Furthermore, as part of the sample consisted of previous completers, an exact follow up timescale comparison with those who were approached prior to their attendance on a programme could not be completed. Whilst consideration was given to using adjudication data of violent incidents as well as a review of wing conduct entries with regards to violent gang members' pre and post treatment, this was hampered by participants transferring out of the establishment at different points. Therefore, this will not be reported as the data is not taken from the same end point.

With regards to the qualitative data, the researcher was informed by the Treatment Managers of RESOLVE and SCP at Prison A when all participants had completed or deselected from the programme. Participants who were identified as being in a street gang were then provided with an information sheet and consent form that was signed and dated (See Appendix G and H). These were hand delivered in sealed envelopes under their cell door. Although participants were provisionally categorised as being gang members, it was considered that those who consented to be interviewed would also identify themselves in this way, given they were being asked to share their views on gang membership. Of those that consented, all had completed RESOLVE or SCP. On receipt of the consent form, interviews took place approximately four to eight weeks following completion of the group. This period was considered necessary to allow participants to settle back into the prison regime and for a period of reflection and consolidation to take place. The dates and times of the interviews were communicated face to face with the participant to ascertain a time that caused minimal disruption to

their daily regime. All interviews were then booked and took place in a private room within the prison.

### 3.3.3 Data collection

#### 3.3.3.1 Demographic information:

Questions regarding age and ethnicity were asked prior to both aspects of the research. Other factors such as marital status and employment status in prison were not deemed relevant to the overall aims of the study.

#### 3.3.3.2 Quantitative

The psychometric measures used were those outlined by NOMS who specifically selected these in order to measure the treatment needs of the programmes. All have been validated on offender samples and are considered to have at least moderate reliability. The measures used are detailed in Table 1 with a more comprehensive description of the dimensions, reported reliability and interpretation of the scores noted in Appendix I.

Table 1

*Description of Psychometric Measures*

Psychometric Measure	Description
Eysenck's Impulsivity Scale; EIS (Eysenck & Eysenck 1978)	A 22 item inventory which measures personality traits of impulsivity, venturesomeness, and empathy. All questions require a Yes/No answer.
State-Trait Anger	A 57-item inventory measuring

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Expression Inventory-2;  
STAXI-2 (Spielberger,  
1999).

the intensity of anger as an  
emotional state and the  
disposition to experience angry  
feelings as a personality trait.  
Questions rated on a 4 point scale  
ranging from 1 (Not at all) to 4  
(Very Much So)

Violence Treatment  
Readiness Questionnaire:  
VTR (Day, Howells, Casey,  
Ward, Chambers, &  
Birgden 2010)

A 20 item scale measuring an  
individual's responsiveness when  
in treatment. Questions are rated  
on 5 point Likert scale ranging  
from 1 (strongly disagree) to 5  
(strongly agree). There is also a  
response for undecided (3)

Vengeance questionnaire;  
VGE  
(Stuckless & Goranson,  
1992)

A 20 item scale measuring  
hostile beliefs, in particular  
vengeance and rumination.  
Questions are rated on 7 point  
Likert scale ranging from 1  
(strongly disagree) to 7 (strongly  
agree). There is also a neutral  
response included (4).

Buss-Perry (B-P)  
questionnaire  
(Buss, & Perry, 1992).

A 29 item scale measuring how  
an individual thinks and acts in  
relation to violence and  
aggression. Questions are rated  
on 5 point Likert scale ranging  
from 1 (extremely  
uncharacteristic of me) to 5  
(extremely characteristic of me).

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### 3.3.3.3 Qualitative

Each interview lasted approximately 45-60 minutes in duration. All interviews were tape recorded and then transcribed verbatim by the researcher. NVivo (a qualitative data analyses software package) was used to organise and analyse the codes and themes that arose. Interviews were conducted utilising a semi-structured approach due to the flexibility of this approach (Silverman, 2000). Moreover, this allowed the researcher to be guided by the responses of the participants, rather than imposing ideas upon the participants (Braun & Clarke, 2013). The interview schedule (see Figure 2) provides a guide of the topics covered and was developed from the existing literature and discussions with the researcher's supervisor. Open ended questions were used to encourage participants to speak expressively about their views on a street gang and their experiences of the offending behaviour programmes they had completed. Prompt questions were guided by the responses given and probing questions were also used to develop a greater understanding of their accounts. Participants were also asked if they wished to discuss any matters further in relation to what had been raised in the interviews.

### 3.3.4 Ethical considerations:

#### 3.3.4.1 Ethical approval

The current study adhered to the ethical guidelines stipulated by the University of Birmingham and the British Psychological Society. Ethical approval was received from both the University of Birmingham (ERN\_15-1441) and the study was logged with the national Integrative Research Application System (2016-086). Additionally, local approval was received from both prison establishments where data collection took place.

Figure 2:

*Interview schedule*

<p>Interview Schedule</p> <ol style="list-style-type: none"><li>1. Describe what you think a street gang is?</li><li>2. What motivates people to join a street gang?</li><li>3. Tell me about your experiences of being in a gang?</li><li>4. Do you think being part of a gang makes a difference to how violent someone is?</li><li>5. Why do you think some people choose to not join a gang?</li><li>6. What reasons might there be for people leaving a gang?</li><li>7. What is your opinion of the rehabilitation programmes offered in prison to gang members?</li><li>8. What do you think would help gang members in the future in prison and in the community?</li></ol> <p>Probing Questions</p> <ol style="list-style-type: none"><li>1. Tell me more about what you have just shared?</li><li>2. Where does this view come from?</li><li>3. What makes you say/feel that way?</li><li>4. Do you have further examples of this?</li><li>5. What experience do you have of this?</li><li>6. Could you tell me more about your thinking on that?</li><li>7. Tell me what you would like to happen?</li></ol>
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#### 3.3.4.2 Confidentiality

Confidentiality was detailed in the information sheet and reiterated in the consent form for both parts of the study. With reference to the qualitative study, participants were asked to make a unique identifier code (i.e., 4 numbers) and write the code name on the questionnaires at the time of issue. This meant that only the researcher and the programme facilitators were aware of their participation. The code ensured that their pre-scores could be matched to their post data. For those who had already completed their pre and post psychometrics prior to the study commencing, their data was accessed using their Intervention Services case identifier which is given by the Treatment Manager at the programme selection stage. Only the RESOLVE or SCP teams and the researcher knew this information. All questionnaires were kept in the researcher's workplace, locked in a drawer only they had access to. The anonymised raw data was saved on the researcher's personal, password protected computer.

For participants in the qualitative study, audio from the interview and transcripts were kept separately from any identifying data to ensure anonymity. Interviews were transcribed in an isolated room and once this had taken place, the audio was deleted. Additionally, identifiable names were removed from the transcript and each participant was assigned a number. The transcripts were encrypted and only the researcher and their supervisor had access to these files.

Participants were informed during the recruitment process and before the start of the interview that information would be treated as confidential, except information which could indicate that they posed a risk to themselves, others or the security of the establishment. In these circumstances, it was explained that this would be shared with

the relevant professionals. All participants abided by this and no action was deemed necessary to report. Participants were also informed that should they choose to read the analysis within the research report they may find statements that they had provided. However, this would only be identifiable to them and the researcher.

#### 3.3.4.3 Withdrawal of participation

For both studies, the information sheet and consent form detailed that participants could withdraw their data by notifying the researcher via general application or for those from Prison B via a letter. The researcher's work address was detailed. Data could be withdrawn during the programme and up to four weeks after the completion of the post psychometrics or four weeks after the interview. If a participant wished to withdraw their questionnaire data, they were informed this would be removed from the data spreadsheet. In terms of the interviews, the audio recording would be deleted. If, during the interview, the participant no longer wished to participate, they were informed that the interview would be terminated, and the recording destroyed. As none of the participants withdrew their consent, it was not necessary to take these measures.

#### 3.3.4.4 Debrief

All participants were given a debrief sheet (See Appendix J) after the completion of the psychometrics and interviews which informed them that if they had any questions regarding the research or if they wished to receive feedback they could contact the researcher through written communication. For participants who continued to reside in the prison where the researcher was based, they were advised to submit a general application. External participants, who had transferred since the study or were

from Prison B, were encouraged to write a letter and the researcher's work address was given. All participants had access to this address at the point of consent.

#### 3.3.4.5 Risk to participants

It was not anticipated that there would be any risks for the participant completing the psychometric data as this would be used for research purposes only. However, offenders by nature are considered a vulnerable population (British Psychological Society, 2010) and those engaging in a violent offending behaviour programme are not without their issues. Therefore, it was considered that there could be the potential for participants to raise concerns. As facilitators from the programmes were present when the participants were completing the psychometrics, they had access to support should they feel this was warranted.

Participants undertaking the interviews were asked to disclose information about a number of areas of their lives which may have had the potential to result in distress being caused. Participants were advised at the beginning of the interview that they had the opportunity to pause or terminate the interview or resume it later if they wished to do so. The interviews were carried out at a pace the participant felt comfortable with.

Participants were informed that if they found any of the psychometric items or areas discussed in the interview distressing, they had the opportunity to discuss this with a professional they deemed to be supportive. For example, programme facilitator, personal officer or offender supervisor. They were also reminded of the prison listener and Samaritans schemes.

#### 3.3.4.6 Personal reflections of the study process

When undertaking qualitative research, it is important for the researcher to reflect on their experiences, theoretical orientation and personal assumptions and how this can impact upon the process (Elliott, Fischer, & Rennie, 1999). The researcher was directly employed by the Prison Service at Prison A and works as an HCPC (Health and Care Professions Council) Senior Chartered and Registered Forensic Psychologist. Subsequently, some participants are likely to have come in to contact with the researcher through a different capacity. It was considered at the research planning stage that this may impact either positively or adversely on participant recruitment. All participants were informed that their involvement was voluntary and it was clearly detailed within the information sheet and consent form that taking part would have no impact on their sentence planning or result in favourable or negative consequences. Moreover, at the ethical approval stage, it was considered necessary to outline that, for those who participated in the interviews, the researcher would not be involved in their future risk management as part of her practitioner role. This was considered manageable because of staffing levels within Prison A.

A possible limitation was that participants may not be as open as they would be if they were talking to a researcher who was independent of the prison. However, having prior experience of the prison environment and working with this type of client group appeared to be advantageous. Specifically, being able to elaborate in conversation about the prison regime and material from the programmes helped build rapport. It was also considered that the males who participated in the interviews spoke candidly about their experiences as evidenced by expressing some negative views towards the interventions and wider government initiatives. Owing to their experiences, this appeared to help recruit further prospective participants.

### 3.3.5 Data analysis

#### 3.3.5.1 Quantitative data analysis

Data were analysed using the Statistical Package for the Social Sciences (SPSS) Version 22 software. Owing to the different hypotheses, paired sample t-tests, an independent sample t-test and a mixed ANOVA were used to explore the differences in responses completed pre and post programme and between the different offender groups. The *P* value was adjusted to take into account that hypotheses 1-4 were one tailed (Field, 2013).

#### 3.3.5.2 Qualitative data analysis

A number of qualitative methodologies are available to researchers which allow them to be sensitive to the interpretations that participants make about their experience which differ in their underlying theoretical approach (Smith, 2004). Within the current research, the data were subjected to thematic analysis in order to identify, analyse and report patterns (Braun & Clarke 2013). This methodology was considered appropriate as it helps to provide a flexible, detailed and rich account of the participant's viewpoints without interpretation deviating too far from the data achieved (Braun & Clarke 2006; McDavid, Huse, & Hawthorn, 2005). This was considered vital given adult gang members have not routinely been sampled within the academic literature. Furthermore, thematic analysis can take on a more phenomenological approach to allow some interpretation at a deeper level and supports the use of a larger sample which was able to be accessed (Braun & Clarke, 2006; King, 2004). Therefore, this would allow more information about the topic area to be gained. The first step in this process was to complete a detailed reading of the data to ensure a thorough transcription of spoken words was achieved, as well as taking notes of any areas of

interest. Each interview was then read by the researcher at least twice for familiarisation. The data were then continually reviewed with data reduction and codes produced to group all notes made. These codes were then collated into potential themes which were continually refined to ensure an accurate reflection of the coded data. Ongoing analysis was undertaken until the final themes had clear names and definitions which in turn conveyed the overall narrative. Owing to time constraints it was not possible to complete an in-depth inter-rater reliability test on the themes. However, to maximise the rigour of the themes, the researcher's supervisor read 44% of the transcripts, reviewed the themes noted by the researcher and discussions took place around the clarity of these.

### 3.4 Results

#### 3.4.1 Quantitative data demographics

The age of participants ranged between 22 and 66 years ( $M = 34.4$ ,  $SD = 8.8$ ), which is reflective of the overall prison population (Allen & Watson, 2017). No significant differences were observed between the age of gang ( $M = 33.1$ ,  $SD = 7.36$ ) and non-gang ( $M = 36.57$ ,  $SD = 8.51$ ) participants on RESOLVE or gang ( $M = 29.06$ ,  $SD = 6.09$ ) and non-gang ( $M = 34.04$ ,  $SD = 11.71$ ) participants on SCP. Also no significant differences were observed overall between the ages of gang members for each programme and non-gang members.

In relation to the ethnicity of the participants, 47% self-reported as White-British, 43% as Black and 10% as Asian. The latest UK prison population statistics (Allen & Watson, 2017) suggest that one quarter of prisoners are from an ethnic minority group, which means the sample has a slight under-representation of White-British prisoners. However, a statistical difference was found between ethnicity of

participant and whether they were a gang or non-gang member  $x_2$  (2,  $N= 118$ ) 12.33

$p < 0.05$ , with the majority of gang members identified as Black

### 3.4.2 Psychometric data

Whilst the psychometric measures used have been deemed reliable on a forensic population, the researcher deemed it important to test the Cronbach's Alpha (1951) on the current data. George and Mallery's (2003) description of the Cronbach's Alpha was applied and Table 2 shows the internal consistency to be reliable for each psychometric measure on a forensic population.

Table 2

*Cronbach's alpha of the psychometric measures*

Psychometric	Cronbach's Alpha ( $\alpha$ )	Internal Consistency Rating
Eysenck's Impulsivity Scale; EIS (Eysenck & Eysenck 1978)	Overall total = 0.91	Excellent
State-Trait Anger Expression Inventory-2; STAXI-2 (Spielberger, 1999).	State Anger = 0.91 Trait Anger = 0.86 Anger Out = 0.79 Anger In = 0.75 Anger-Control Out = 0.82 Anger Control In = 0.83 Anger Index = 0.79	Excellent Good Acceptable Acceptable Good Good Acceptable
Violence Treatment Readiness Questionnaire: VTR (Day, Howells, Casey,	Attitudes/Motivation = 0.79 Emotional Reaction = 0.74 Offending Beliefs = 0.81	Acceptable Acceptable Good

Ward, Chambers, & Birgden 2010)	Efficacy = 0.75 Overall Total = 0.78	Acceptable Good
Vengeance questionnaire; VGE (Stuckless & Goranson, 1992)	Overall total = 0.91	Excellent
Buss-Perry (B-P) questionnaire (Buss, & Perry, 1992).	Physical = 0.86 Verbal = 0.79 Anger = 0.82 Hostility = 0.83 Overall total = 0.81	Good Acceptable Good Good Good

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### 3.4.3 Quantitative analysis

The assumption of whether the data were normally distributed and whether parametric analysis could be applied was examined using the Kolmogorov-Smirnov test. For the RESOLVE cohort, data was normally distributed except for on EIS with non-gang participants and the STAXI and Buss Perry for non-gang participants. A similar pattern emerged for SCP where data was normally distributed except for EIS with gang participants and the STAXI and Buss Perry for non-gang participants. This may have occurred owing to the small sample size. Therefore, parametric measures were undertaken with the normally distributed data and the non-parametric alternative applied when this was not achieved.

#### 3.4.3.1 Analysis 1

In order to draw appropriate pre and post treatment conclusions from the psychometric data, it was important to first explore the baseline differences between

RESOLVE and SCP pre-programme scores (regardless of offender typology) and baseline differences between the gang and non-gang participants on their pre-treatment scores. Independent t-tests were carried out and the non-parametric equivalent, Mann Whitney U, where data did not meet parametric assumptions. Regardless of offender typology, offenders were rated significantly higher on impulsivity (EIS), anger (STAXI), vengeful/ruminative thinking (VGE) and aggression (B-P) if they were on SCP compared to RESOLVE (see Table 3 for descriptive statistics). This would be expected given both have slightly different criteria with RESOLVE being medium intensity and SCP high intensity. No significant difference was found between programmes for treatment readiness, suggesting that participants had similar levels of motivation to engage in treatment.

Table 3

*Baseline differences between pre-programme scores (regardless of offender typology)*

<i>Psychometric</i>	<i>T-test</i>			<i>Mann-Whitney U</i>		
	<i>Test Statistic</i>	<i>Df</i>	<i>Sig (2=tailed)</i>	<i>Test Statistic</i>	<i>Df</i>	<i>Sig (2=tailed)</i>
EIS	3.445	116	0.001*	-	-	
STAXI	3.068	116	0.003*	-	-	
VTR	-0.518	116	0.605*	-	-	
VGE	-	-	-	1209.5	116	0.019*
B-P	3.258	116	0.001*	-	-	

\*  $p < .05$

When comparing the pre-score baselines between gang and non-gang participants for RESOLVE, the independent t-test found a significant difference between the two sample groups for treatment readiness ( $t(72) = -2.53, p < 0.05$ ) which suggested that non-gang participants had higher levels of engagement than gang

participants at the beginning of the programme. Gang participants were found to have higher levels of vengeful thinking ( $t(72) = 2.17, p < 0.05$ ) than non-gang participants. For SCP, both the independent t-test and the Mann Whitney U revealed no significant differences across the five psychometric measures.

#### 3.4.3.2 Analysis 2

To understand if all participants had benefited from treatment and to address all hypotheses, a series of mixed ANOVAs were undertaken on the RESOLVE and SCP data separately. For each programme; the offender typology (gang or non-gang) was the between subjects factor and treatment status (pre and post) was the within subjects factor. The dependent variables were the total scores on each of the five psychometric measures, i.e., impulsivity, anger, treatment readiness, vengeful ruminative thinking and aggression. Levene's Tests revealed that the assumption of homogeneity was met, for all tests. Table 4 shows the descriptive statistics in detail for RESOLVE participants and Table 5 for SCP participants.

Table 4 *Descriptive statistics from the RESOLVE data set*

Psychometric	Offender	Mean	Std. Deviation
Pre EIS	Gang	7.68	4.56
	Non Gang	7.33	5.16
	Total	7.49	4.86
Post EIS	Gang	4.38	4.17
	Non Gang	5.03	4.64
	Total	4.73	4.41
Pre Staxi	Gang	77.56	5.73
	Non Gang	77.80	6.41
	Total	77.69	6.06
Post Staxi	Gang	72.35	6.76
	Non Gang	72.38	7.35
	Total	72.36	7.04
Pre VTR	Gang	74.71	10.57

	Non Gang	80.60	9.44
	Total	77.89	10.33
Post VTR	Gang	82.56	9.77
	Non Gang	86.63	10.42
	Total	84.76	10.26
Pre VGE	Gang	63.38	23.03
	Non Gang	52.95	18.36
	Total	57.74	21.15
Post VGE	Gang	49.18	16.27
	Non Gang	48.68	16.39
	Total	48.91	16.22
Pre B-P	Gang	75.88	14.84
	Non Gang	70.28	19.68
	Total	72.85	17.73
Post B-P	Gang	62.15	17.77
	Non Gang	57.20	14.71
	Total	59.47	16.27

When considering clinical change, the guidance issued by NOMS for the psychometrics used is in relation to the direction of change rather than any specific cut offs. The descriptive statistics appear to show a sizeable decrease (EIS, STAXI, VGE and B-P) and an increase in the VTR data suggesting that participants have benefited from attending the RESOLVE programme. This is confirmed from the mixed ANOVA where a significant main effect was found for the pre-post treatment status of the participant on all five psychometrics; decrease in impulsivity levels  $F(1,72) = 25.23, p < 0.01 \eta^2 = 0.259$ , decrease in anger levels  $F(1,72) = 31.369, p < 0.01 \eta^2 = 0.303$ , increase in treatment readiness  $F(1,72) = 22.197, p < 0.01 \eta^2 = 0.236$ , decrease in ruminative/vengeful thinking  $F(1,72) = 18.831, p < 0.01 \eta^2 = 0.207$  and decrease in aggression  $F(1,72) = 34.475, p < 0.01 \eta^2 = 0.324$ . Further Cohen, Miles and Shevlin (2001) effect size categories suggest a large effect was achieved for all five of the psychometrics and implies that all participants benefited from engaging in the RESOLVE programme. This was evidenced by a reduction in impulsivity, anger,

vengeful/ruminative thinking and desire to engage in aggressive acts and a higher desire/readiness to engage in treatment.

There was only one significant main effect when analysing offender type and this was for treatment readiness,  $F(1,72) = 7.43, p < 0.01, \eta^2 = 0.094$  (medium effect size). This is similar to the pre-treatment scores reported in Analysis one whereby non-gang participants had higher levels of engagement than gang participants from the beginning. There were no significant interactions observed between pre and post scores and offender typology suggesting that both groups achieved similar outcomes and profited from treatment.

It was important to reflect on the risk of Type 1 error and as multiple comparisons were made consideration was given to the Bonferroni correction. This correction can often be deemed too conservative and lead to meaningful differences being discounted (Bland & Altman, 1995; Lesack & Naugler, 2011). However, when this adjustment was applied the findings remained the same.

Table 5 *Descriptive statistics from the SCP data set*

Psychometric	Offender	Mean	Std. Deviation
Pre EIS	Gang	9.64	5.07
	Non Gang	12.09	5.92
	Total	10.86	5.59
Post EIS	Gang	5.36	4.14
	Non Gang	7.36	5.46
	Total	6.36	4.89
Pre Staxi	Gang	81.18	7.22
	Non Gang	82.14	8.63
	Total	81.66	7.87
Post Staxi	Gang	77.59	5.20
	Non Gang	78.55	10.75
	Total	78.07	8.36
Pre VTR	Gang	74.50	12.18

	Non Gang	79.23	8.29
	Total	76.86	10.57
Post VTR	Gang	85.32	12.08
	Non Gang	84.73	9.84
	Total	85.02	10.89
Pre VGE	Gang	75.50	27.73
	Non Gang	66.14	28.87
	Total	70.82	28.37
Post VGE	Gang	55.86	19.97
	Non Gang	55.00	20.55
	Total	55.43	20.03
Pre B-P	Gang	84.59	20.50
	Non Gang	84.86	22.58
	Total	84.73	21.32
Post B-P	Gang	65.95	14.67
	Non Gang	69.05	21.07
	Total	67.50	18.01

Similarly to the RESOLVE data, when analysing the SCP descriptive statistics (Table 5) there is a sizeable decrease (EIS, STAXI, VGE and B-P) and increase in the VTR scores suggesting that participants have benefited from attending SCP.

Undertaking a series of mixed ANOVAs confirmed there was a significant main effect found for the pre-post treatment status of the participant on four of the psychometrics;  $F(1,42) = 52.653, p < 0.01, \eta^2 = 0.556$ , increase in treatment readiness  $F(1,42) = 22.005, p < 0.01, \eta^2 = 0.334$ , decrease in ruminative/vengeful thinking  $F(1,42) = 18.972, p < 0.01, \eta^2 = 0.311$  and decrease in aggression  $F(1,42) = 38.256, p < 0.01, \eta^2 = 0.447$ . It is important to note that the Box's M Test was significant when undertaking a mixed ANOVA on the STAXI data, which suggests there may have been an outlier or high variation in score (Friendly & Siegal, 2018). In contrast, Field (2013) argued that if the sample size is equal, which in this analysis it was, it is acceptable to disregard the Box M Test on the basis it is unstable. Therefore, it can be reported that a significant

main effect for the STAXI data was achieved whereby participants showed a decrease in anger levels  $F(1,42) = 5.641, p < 0.01, \eta^2 = 0.118$ ,

Using Cohen, Miles, and Shevlin's (2001) effect size categories, a large effect was achieved for all five of the psychometrics and implies that all participants appear to have profited from treatment. No main effects were observed between offender typology and no significant interactions were found when analysing pre and post treatment scores and gang and non-gang participants. Applying the Bonferroni correction, yielded the same findings.

#### 3.4.4 Qualitative data

A total of nine participants took part in semi-structured interviews, which is considered adequate for the purposes of thematic analysis (Braun & Clarke, 2013). Two participants had completed RESOLVE and seven had completed SCP within a 12 month period at the time of interview. Participants were aged between 26 and 40 ( $M = 31.2, SD = 4.2$ ) with 56% self-reporting as Black, 22% as Asian and 22% as White.

The aim of the qualitative study was to develop an understanding of participants' views on the process of gang membership and their views of the rehabilitative efforts in both custody and in the community. From engaging in the interviews, listening, transcribing, reading, and re-reading the resultant transcripts, it became apparent that gang members responses could be separated into three main areas which detail the cycle of gang membership; what constitutes a gang member, what factors motivate individuals to join a gang and what factors are associated with desistance. Subordinate themes emerged that fitted under these major themes (see Table 6).

Table 6

*Summary of themes and subthemes derived from Thematic Analysis of semi structured interviews with violent gang participants.*

Theme	Super-Ordinate Theme	Subordinate Themes
1. Gang Membership	1.1 Perceptions	Self-fulfilling prophecy Brotherhood Who we are?
	1.2 Organisation	Environment Hierarchy Unique Criminal
2. Motivations for joining a gang	2.1 Identification	Sense of belonging Image is everything Need for excitement
	2.2 Survival	Protection Material gains Freedom of choice
3. Motivators to disengage	3.1 Real world	Abandonment Consequences Responsibilities Maturation Cutting ties
	3.2 What works	Self-efficacy Accredited programmes Those who 'walk the walk' What else is left

## Theme 1 Gang membership

Within the data sets, all participants were willing to share their views on what they believed a gang to be and discussed this in relation to their own experiences. Two super-ordinate themes emerged from data analysis. These were further divided into sub-themes.

### 1.1 Perceptions

Participants frequently shared how their perceptions of a street gang differed to those working in the Criminal Justice System with over half considering that the media and general population shared a stereotypical view of what they perceived a gang to be. Participants' perceptions of a street gang were generally favourable although they accepted that some of the rules and codes that were placed on them had been restrictive. This theme has been divided into four sub-themes to account for these perceptions.

#### Self-fulfilling prophecy

Of those interviewed, all identified themselves as a street gang member. None appeared resistant or angry about this term and this level of acceptance may have been linked with all having completed treatment which aims to develop an openness to discuss previous experiences. All participants shared the view that in the community they viewed themselves as "*normal*" rather than as a gang member; "*I mean we didn't see each other as being in a gang; we were normal guys, just a group of friends hanging*" (P4). Participants also spoke candidly about their experiences of how those external to the group viewed them and how this label shaped their own view of their identity;

*Well I don't think when you're in it that you see yourself in a gang, it's what the police call you or what the neighbourhood start saying about you, or even in prison people say you are in a gang when you don't think you are, just the way it is. They say you are in a gang, so you start to think ok yes I am then. (P1)*

Some participants reflected on how the media's portrayal can shape others views and how this differs to reality; *"the hip hop music is always promoting violence and what's the word being misogynistic against women and promoting gangs as that bling bling lifestyle, bitches this and hoes this, it brainwashes you as it's not real life."* (P6)

### Brotherhood

This theme emerged in all participants' comments and how being part of a street gang was like a "family" where they were able to establish a connection with likeminded peers:

*it is like a brotherhood or family, like an extension of your family, you spend so much time with them that they become part of your family and you have this link with them so end up then wanting to spend more and more time with them.* (P1)

This idea of being tied to each other was also linked to how being part of this family network led to the development of an unwritten loyalty towards each other at times of conflict or crisis;

*the friendship has to be fully bonded and yeah there is only one way know that you and your friends are fully bonded when you end up having a fight and the person standing next to you is standing for the whole time.(P3)*

Who we are?

Participants through the interviews reflected on their identity and how belonging to a gang allowed them to know who they were; *“I think you need to have name, like an identity. I also had a street name which meant people knew who I was”* (P6). Other key factors symbolising what it meant to be a gang member were clothes, mannerisms and the possessions they owned:

*You know the affiliation by the way they dress, the way they speak erm phrases or slogans that maybe uttered. The main gangs would have a particular colour which represented you know their crew, so that crew would have that colour and this crew would have that colour.* (P2)

*I mean I guess it's the way we talk, it's the way we walk, the dress, the pants they are hanging down, it's how we communicate and come across that makes it different such as you know what I mean fam.* (P6)

Linked to this idea of identity was how participants shared what was expected of them by the gangs they joined. All participants held a commitment to undertake activities together; *“when in a gang it is done collectively and everyone moves together outside the larger estates”* (P8). Emphasis was placed on the fact that despite any consequences their actions may bring, gang members were required to remain loyal, for example *“if my phone rang and someone said it's going off, I don't have a choice, I gotta go ain't I no matter how mad the situation is I have to get involved as my gang needs me”* (P4). Furthermore, a preparedness to escalate in their use of violence was also expected to enact justice and protect the gang's identity:

*If someone violates or disrespects you, you can't just accept that you have to, you are expected to be violent so whether that's punch someone badly, use a knife, use a firearm, I mean if you don't, you are going to look weak. (P8)*

## 1.2 Organisation

This theme captures how participants considered the group process to be integral in what defines a street gang. Participants reflected on how the environment they were raised in led to an exposure of seeing peers associating with each other which overtime developed structurally to form a more cohesive group where issuing orders and rules were common place. However, for other participants, they viewed a street gang to have more flexibility whereby they could move more freely and did not consider themselves accountable to those they associated with.

### Environment

All but one participant discussed the view that the neighbourhood they were from would usually determine where street gangs would be. Specifically, they described how they would be within inner city districts of low socioeconomic status and high levels of crime. Therefore, the psychological impact of living in a neighbourhood characterised by crime and violence appears to have contributed to likeminded individuals being drawn together:

*most street gangs are generally based erm based on the inner city estate you come from. Gangs are usually based estate to estate or block to block or street to street and unfortunately this is where the most crime is and probably some of the poorest areas you know. It's reflected in the postcode you were from and you were tied to that. In the beginning it was Brixton but then you had Peckham*

*so you were either a Brixton boy, Peckham Boy or Ghetto boy depending on which block. (P2)*

## Hierarchy

Participants had differing views on whether there was a hierarchical structure within a gang with some discussing how they were highly structured. Participant six outlined that a gang has a “*general, the lieutenants, the major, the sergeants, down to the foot soldiers*”. He later shared how the gang he belonged to had “*probably started with less structure*” but as the gang evolved the level of control and the consequences for not adhering to this became apparent “*you would have to get permission to do a mission or to do something first otherwise you’d be punished, I mean you couldn’t just do what you wanted there were rules*”. However, for one participant whilst they were in agreement that hierarchy was part of their gang it was not as rigid: “*at the end of the day we were buying drugs to sell drugs, he was our boss but at the end of the day, he didn’t control us*” (P3). Participant five shared an opposing view suggesting that gangs are based on friendship and come together because they have a commonality which is not governed by strict rules. As such he viewed himself on an equal level. His views appear to be shaped by the idea that to have hierarchy meant others would have an elevated status and authority over him;

*Well there ain’t no hierarchy I mean in Birmingham that don’t happen, we came together because we grew up together. So you couldn’t say I mean, if I am a bad boy yeah, and you’re a bad boy we all bad boys in it, so how are you the boss of me as that would means you’re badder boy than me which you are not. So it didn’t work like that, we made our own decisions. (P5)*

## Unique

Whilst all participants conveyed what it meant to be in a street gang, half reported that a universal shared definition would not be possible. It was highlighted that whilst different gangs share common elements, it is still individualised because of their differing priorities:

*Gangs are different depending on what and who they are; I mean two London gangs pretty much next door to each other are different and involved in different things. I mean one could be known for food (drug dealing) and one for fast cars or weapons I guess. I think it's individualised as different numbers and different rules but I guess with some similarities such as it being a group and usually involves criminal activity. (P7)*

Other differences were considered such as geographical territory with some being tied to an area, *"I mean in my gang we had quite a chunk of territory so to speak so we were quite big where as others have none and able to go into other areas"* (P2) and hierarchical structures, *"some gangs have no structure and it's like a Chinese parliament where there is no one leader, everyone likes make the decisions but another gang is strictly hierarchical"* (P6).

## Criminal

All participants considered that a key feature in defining a gang was their involvement in committing some form of illegal activity with their peers. This has been evident in some of the quotes shared above. In particular, the centrality of violence was clear and appeared to form part of their group identity and continued practice:

*All gangs will always commit violence as they have to protect their ends, their food [drugs], protect their friends but also for gain. I mean I have been involved in so much it became natural for me to do the things I've described. (P9)*

## Theme 2 Motivators for joining a gang

Typically, participants perceived there to be a number of factors which contribute to individuals joining a street gang and shared the view that this was not a simple process nor should each motivator be viewed in isolation. The themes to emerge can be separated into identification as well as seeing this lifestyle as a need for survival.

### 2.1 Identification

Participants shared how being part of a gang was an integral part of their identity which influenced their actions on a daily basis in order to gain a sense of purpose, acceptance and self-worth. To encapsulate these comments, this theme has been divided into three sub-themes to account for the role of identity.

#### Sense of belonging

All participants shared how individuals prior to joining a gang will often feel isolated from mainstream society having committed anti-social behaviour, been expelled from school and/or experienced instability within their family homes. Therefore, they go in search of a support network that makes them feel valued. Whilst participants varied in their childhood experiences, one participant outlined how a lack of connection with his mother was a key contributor:

*I'd been put in foster care and I felt like I'd been abandoned by my mum, who does that, I mean I got there and I don't know anyone. This guy comes over, he is friendly and invites me out with some of his and made sense to me to hang out*

*as it felt nice, for once I knew where I was and they were good guys and it felt good. (P7)*

The effect this connection can have was seen in another participant who shared how belonging to a gang had helped increase his self-worth “...it felt important, erm it gave me self-esteem. I mean I think it, if hadn't been in a gang at the time I would have felt insignificant, vulnerable and not important” (P6). In turn, these experiences led participants to view their gang as family; “...a sense of belonging, brotherhood. You don't look at them every day and think I am with my fellow gang members, you look and go I am with my brother, you know what I mean” (P5).

A small minority of participants linked a desire to belong as a result of having other family members within the gang and how ignoring this may result in being ostracised:

*If your family is involved you have a blood tie and this makes you closer as I joined and we had something in common. I think if I hadn't, well I don't know but I can't imagine they would have involved me in things. (P9)*

Image is everything

Status and respect were deemed important psychological needs for all participants and they discussed how this could be achieved through affiliating with a street gang. For example, Participant five commented:

*I wanted recognition, status you get me, I ain't going to lie it felt good at the time as there is a thing called the hoodsters, you get me, hood famous, everyone in the hood would know me, know what I was about and what I was doing, it's a kind of status thing.*

It was also recognised that being in a gang helped participants to have companionship with women and gain popularity “*you get several different women.....living a particular life its alluring as it makes you popular*” (P2).

Participants also reflected how this elevated status and popularity led to a sense of invincibility and acquirement of power which they would otherwise not have achieved. In turn this allowed a degree of protection when faced with competition and conflict with rival gangs; “*it was kudos being associated with a gang, other people would respect you or fear you and give you er a wide berth where they wouldn’t want trouble and in turn you didn’t become a victim*”(P6).

Need for excitement

Half the participants interviewed expressed how they were drawn to those who belonged to a gang as it provided excitement and stimulation from their day to day lives. For example, “*people crave excitement and find the life exciting you know, that enjoyment you know that enjoyment is there making money or hurting people you know*” (P2). One participant also shared how he joined a gang to alleviate his boredom and provide him with a sense of purpose:

*I was just out hanging around them really and you know it was out of boredom really, I think I gravitated towards them because of boredom and when they asked me to do something, it was like well now I have a job to do. (P6)*

## 2.2 Survival

This theme demonstrates how participants considered joining a gang because it was necessary in order to thrive in what was already perceived as a hostile environment. Participants reflected on how involvement created more opportunities

and allowed them to feel safe, whilst a small proportion considered that engaging in a gang lifestyle had been their choice rather than enforced.

### Protection

All participants suggested that, owing to where gangs tend to originate, individuals will often perceive that they have little choice but to join to avoid being victimised. Interestingly, it was recognised that individuals will experience emotional turmoil because of the concerns about the dangers associated with gang activity.

However, this is routinely outweighed due to the idea of safety in numbers:

*[being in the gang] gave me a sense of security, feeling safe even though there were lots of times I didn't feel safe, erm it just felt good that lots of people had my back and I could rely on them when needed. (P6)*

*I mean gang members give you protection, security and you know that your gang will have carried out an attack on someone if something happens and so there will always be tit for tat. (P9)*

Lastly, one participant also suggested how being part of the gang afforded his family the same level of protection, which reassured him that he had made the right decision not to desist “*my close family quite liked it because they have always benefited from protection through it, my friends will always look after my family, even when I am not there, so why give that up*”. (P4)

### Material gains

Living in a society that promotes material wealth was considered to shape an individual's beliefs about money and push them towards affiliating with a gang, “*the youths of today are from a generation where I don't want to have to save and save, I*

want it now” (P7). One participant also reflected on the impact of social media and the desire to own the latest possessions: “Instagram these days shows you everything you could possibly want and the kids look at this and think that the bling bling, fast cars will all be on their doorstep at a click of the fingers” (P9). This notion of quick and easy money appears to be a tactic used by existing gang members to entice individuals to join, with all participants suggesting that they had been exposed to criminal activity and the associated rewards:

*I mean older gang members started giving me money, jewellery, drugs to sell and when no-one before has given you this before, you start to realise these things will get you other things such as attention from girls, respect because people know you are part of this particular group. So then you think you need this in order to get somewhere in life. (P8)*

#### Freedom of choice

A minority of participants (two) considered that whilst there are a number of reasons why individuals join a gang, ultimately, whether or not someone joins a gang involves them making a choice. For instance, one participant recognised that not all individuals growing up in one area will be gang members:

*I made the choice to become involved no one forced me, I was living the street life and then being part of aging was erm just natural to follow. It was natural thing to do in it, that choice is what I made and live in a particular way and it helped me survive. Others from the same estate, they made different choices and different decisions, I can only blame myself. (P2)*

It was also highlighted how joining a gang was more a pre-planned than an impulsive decision; consequences are considered carefully. Participant nine shared how *“I can’t blame anyone else for why I joined, I thought all the gains outweighed the bad and do you know what, I was able to live without having to worry as people had my back”*. Therefore, suggesting that simply considering the negative consequences of a gang lifestyle was not enough to increase the likelihood of leading an alternative pro-social life.

### Theme 3 Motivators to disengage

Another dynamic of gang membership is the process of disengagement. Whilst leaving may in principle seem straightforward, it is considered complex as it cannot be solely categorised to a single pivotal turning point. All participants were able to describe multiple reasons which facilitated this process which have been separated into two themes.

#### 3. 1 Real world

This theme captures how participants repeated exposure to being in a gang led to a fatigue with this continued lifestyle. Moreover, participants’ exposure to different life events was also considered key in contributing to a shift in their priorities and a decrease in commitment towards their gang. This theme has been divided into five sub-themes to account for the reasons associated with these ‘real world’ experiences.

#### Abandonment

All participants were in prison serving life sentences and found that peer support from the community had dwindled over the course of their incarceration. Here

many described having felt let down, especially at a time they felt they needed their contact the most. One participant suggested:

*I realised that it's all, it's all like fake as you get told everyone is there for you but it's not like that especially when you get locked up, you get forgotten about, I mean my sense of loyalty diminished for those reasons as if they are not there for me why should I be there for them, you said you were but they weren't so it was false brotherhood. (P6)*

Therefore, this perceived loyalty that had contributed to remaining in the gang had not been reciprocated leading to feelings of abandonment.

#### Consequences

Multiple negative consequences were shared in the interviews about being in a gang and how this contributed to a turning point in their commitment. In particular, entering prison and being separated from this lifestyle appears to have afforded some participants self-reflection:

*I was always getting short sentences and it was nothing so I didn't learn my lesson, I then got bare time and sitting alone in my cell at 19 thinking this is my reality for the next thirty years, what a waste man. The more I have thought about it over the last fifteen years, the more I know now what is important to me. (P8)*

Participants also considered how seeing a friend or family member injured or killed as well as having direct experiences with violence (being injured by either individuals from their own gang or rival gang) had also impacted on their decision

making. This also linked in with comments on how tiring it can be when having to be hypervigilant to ongoing threat:

*You know you get stabbed you get shot, people are coming to your house shooting at your house, these kinds of things, you know choosing to target family members because of the conflict you may have. But you know you start to ask the question what is, what is it I am doing with my life as I don't want to be the next one. Family members start to get harmed and people going to prison, you get tired of that way of living. (P2)*

One participant also described how committing an extreme act of violence had led them to question their life:

*People need an epiphany where you suddenly realise where your life is heading, for me it was when that [provides victim's occupation] got shot, it made it real, until then I took everything as a joke. The reality that someone has died at my hands, I couldn't believe it. (P3)*

Therefore, experiencing some form of trauma whether being injured, witnessing or committing violence against others can contribute to a re-evaluation of continuing to be involved in a gang. Interestingly, one participant reflected that this did not impact on his desistance rather their experiences had provoked the need for retaliation “*I have been injured to, to some extent but it didn't put me off, I had to go and get that person back no matter what*” (P4).

## Responsibilities

All participants relayed how having a significant other such as a partner had led to a change in how they viewed their behaviour, for example, one participant stated:

*I was selfish, it was only when we sat in the visits hall and she told me how she would stand by me, I started to think what she was having to go through, I couldn't believe what I did and well do you know what it was never really worth it. (P9)*

One participant was of the opinion that other family members can have a powerful effect on one's decision making "*every grown man will cry if they saw the impact their life has on their mother, they would gain more awareness of the life, it would help them realise their life was fucked up*" (P3). Both statements suggest how seeing the associated consequences of what their behaviour was doing to someone they cared for, impacted on their commitment to remain in a gang. In contrast, one participant believed that having family had little impact on his disengagement;

*Family or partners it doesn't stop you, partners, like you got with me when they already knew how I was and what I was so it didn't deter me. Family it's like it would be viewed as collateral damage, I don't care. (P2)*

This may in part be due to the quality of the relationships they had with their loved ones or that other factors were stronger at assisting in the disengagement process.

### Maturation

A continuation of re-evaluating priorities also overlapped with the idea of how participants saw maturity as positive as this helped them realise that there is more to just being in a gang; "*it loses its appeal and as you get older your priorities start to change, you start getting more life experience and start seeing things from a different perspective*" (P2). Some participants questioned how it was not just about physically maturing but also how taking on more responsibilities and a new focus allowed them to

see they had something else to live for as well as maturity providing them with more opportunities:

*Well age plays a big part, but you know, I mean I guess family, a missus and having a kid made me realise I needed to grow up as I couldn't carry on like this, I needed to support them. (P1)*

*I mean when you're a kid, your problem is you want to go and find an enemy and make a name for yourself. When you start to get older you learn to put priorities in check and the gang thing it's a hinder, its bollocks in it. That's what happened to me I got fed up of the reality so I left. (P4)*

#### Cutting ties

Some participants shared the idea that when ties are severed to a gang this can make it easier to leave a gang. However, a discussion of how accepting gangs would be of this was subjective and based on whether there was strict entry and exit; “*some are strict like Burgers or the Johnson's, there are restrictions so only way to leave, well probably death*” (P9). Whilst receiving a custodial sentence was an example shared, participants mainly focused on how moving to a different area/environment could assist in this process of “cutting ties”:

*Imagine you take them out of the gang life and say put them in Sheffield when they are from London. He is going to be in Sheffield with family and so you have a fresh start to start over again, perfect way to break up a gang, is to move as I can't see people travelling from London to have a go. (P3)*

### 3.2 What works?

The rehabilitative approach in custody was largely viewed as positive, with emphasis being placed on the role of personal control being indicative of change. A number of key points were also raised as to whether the services provided were realistic in supporting individuals to maintain a lifestyle away from a gang both in prison and on release.

#### Self-efficacy

Half of the participants interviewed stressed how it was their choice to change and that this process had taken place prior to undertaking any rehabilitation programmes, for example, *“I changed my life around long before I came on, it was like, because I wanted to, not because you told me I should.”* (P9). This gives a sense of the participant having autonomy over his life rather than viewing change as a result of an external source. Participants also discussed how they believed programme material had helped to give more control over their life, *“I feel empowered... and I am able to manage my thoughts so I can then introduce other skills”* (P7). Most participants also gave the impression of how this transition appeared to produce inner turmoil and made them question who they were:

*If you want to change, you need to let go of all that old life. All that old me you need to let it go cos it's going to keep dragging ya, you have that tug of war, you want to be New Me and once you start this, it is such a positive feeling. You do have to be honest with yourself though that Old Me is always there and that is just the reality of the situation, it will want to pull you back.* (P8)

This sense of needing intrinsic motivation was considered by all participants as being essential for programme effectiveness in order to promote longer term changes in their life:

*Programmes can be helpful but as I told enough people if you don't want to do it and don't want to change then the courses is pointless. It's pointless, you definitely need to try otherwise you are wasting time as you won't be able to maintain it. You can't just say that you're doing the courses for courses sake as you won't truly change that lifestyle. (P5)*

#### Accredited programmes

All participants reported personally benefiting from the rehabilitation measures. Generally, their accounts detailed how they felt their insight had developed into their belief systems *"it teaches me about my beliefs, the way I think and how it has impacted on the decisions I have made in the past. That's where it helps"* (P2). One participant who had completed SCP went on to say how *"it was the first time in my life I had really looked at my offences, faced reality and look what I had actually done"* (P6). Therefore, illustrating the impact the material can have on those attending.

Participants also spoke about how they had applied their learning to avoid escalating violence and problems within the custodial setting which suggests the level of engagement the participants had in the material. For example, *"I mean it has helped me to speak to screws [officers] better as I have always struggled, I have learnt to slow things down and not just jump at people when I feel angry"* (P1). Additionally, two participants commented on subsequent psychological impact and how they developed a deeper understanding of themselves:

*I found peace in myself I mean I felt like I finally understood me and they [facilitators] had helped me to realise that I can be more trusting of people and wont judge me for the bad things I have done. (P9)*

When considering the next steps, three participants promoted the idea of individualised treatment, for example, *“I think it would help identify other causes, like really explore why they entered that lifestyle and what it meant to them would be helpful (P6).*

Despite these benefits, half of the participants were concerned with the realism of implementing the material and skills outside of the classroom, particularly when faced with peer or rival gang members. For example, one participant commented:

*...everyman knows where he’s from, where he has been and he might not know where he is going, but in the role plays, if this really happened realistically in real life, ha I mean we sit there knowing that it wouldn’t work out like that..... If life was like the role plays it would be easy for us... there needs to be something more realistic. (P3)*

Those who ‘walk the walk’

A key theme to emerge was the view that individuals need to receive support and guidance from those who they can relate to rather than professional agencies. Participants suggested that gang members, especially adolescents, would be more willing to listen to a peer and be responsive to feedback:

*you don’t want to chat to no probation or police officer, you get me they don’t want to tell you these things about themselves but if someone like me next to them they would be yo, more willing to speak. (P5)*

Furthermore, it was considered that this would help to promote the realism of the advice given, especially when undertaking interventions:

*It's kind of preposterous that you have a person teaching someone something or trying to lead them away from something that they have no experience themselves about it. So it's like ok how can I take what you are saying seriously because you don't even know. If someone had come to talk to me but I knew they had lived a particular lifestyle I would have been more willing to listen to what they had to say. (P2)*

What else is left?

When commenting on additional strategies to help gang members in the future, participants varied in their responses as to what would address the issues raised. However, the need for professionals to not write them off from society was deemed essential: *“people need to take a chance on us, just because a mistake has happened or look a certain way doesn't mean we won't be good at the job”* (P8). Safe spaces in the community such as youth clubs or community centres were considered to help relieve boredom but also allow other agencies to go into these places and provide support. Participant two illustrates this idea suggesting *“when there is nothing productive to do in terms of no more youth clubs, football teams you can't be surprised. I mean a nice environment to socialise and do things should be there”*. However, a tension between what the communities need and the agencies/councils that could provide this were shared, with specific emphasis being on a lack of funding:

*You need to invest a lot more in communities, youth centres have been shut down so kids have got nowhere to chill out and express themselves, politicians are cutting all the money from these youth charities and projects so put the*

*money back in there, reinvest it in the future. Its school, its social services, communities as a whole, they need to do more especially the government I mean they need to do so much more to stop the problem as only going to get worse.*

(P6)

Interestingly, one participant considered that a message needed to be publicised to young females in school: *“tell the girls that dating someone in a gang isn't sexy would help as it would prevent young boys thinking that being in a gang was how they could attain women”* (P1). Two participants also felt presenting individuals with a “reality check” such as *“a holiday to Africa and show how people really live and appreciate the difficulties life can give”* (P3) or *“ photographs of the dead bodies, their victims, so it is drilled into their heads that this is what your behaviour is causing”* (P6). This suggests participants consider a radical message needs to be promoted to expose the realities of being in a gang.

### 3.5 Discussion

The aim of this study was to build on the current emerging literature on street gangs in order to understand gang membership further within the UK. A mixed methodology was employed whereby quantitative research was conducted to investigate the impact of two violent accredited offender behaviour programmes (RESOLVE and SCP), and secondly, a qualitative approach was taken to explore the views of individuals who identified as a gang member and had attended programmes. Here they were encouraged to share their views of gang membership and the rehabilitative strategies offered for those wanting to desist from this lifestyle. It was hoped that the findings from both studies could contribute to the academic research on this offender population, as well as assist practitioners in providing the appropriate

support and treatment to help at risk individuals from engaging in this lifestyle as well as street gang offenders in their efforts to desist from a gang.

### 3.5.1 Quantitative

Previous research on gang rehabilitation has primarily focused on American samples and community rehabilitative evaluations (DiPlacdio et al., 2006; Schram, & Gaines, 2005). Studies on rehabilitative methods undertaken within the UK have not only been limited but also aimed at youth within the community (McMahon, 2013). Subsequently, to the author's knowledge, there has been no previous attempt to compare violent gang participants and violent non-gang participants and the impact of treatment within a UK custodial setting. Therefore, this study was considered useful in helping to understand further whether the treatment needs outlined for both offender types were targeted appropriately. To answer this five hypotheses were considered. Each hypothesis will be discussed in turn.

**Hypothesis One: There will be a reduction in impulsivity following intervention for both violent non-gang members and violent gang members.**

Results from the present study found that both gang and non-gang participants for RESOLVE and SCP scored lower on impulsivity having reported an increased ability to plan and think through options and consequences prior to acting out in a situation. These changes were found to be of high statistical significance and confirm the hypothesis outlined. This suggests that both programmes may have helped to assist individuals in developing skills to lower their impulsive responses. Relating these findings to the research, impulsivity is viewed as a contributory factor to offenders who engage in violent behaviours (Polaschek & Reynolds, 2001). Interestingly when comparing pre-scores for both violent gang and violent non-gang offenders, there were

no significant differences. As such this appears to conflict with Esbensen et al., (2001) and Esbensen and Weerman (2005) who argued that gang members demonstrate more impulsive and risk-taking behaviours compared to violent non-gang youths. Therefore, supporting the view of Ross and Fonato (2008) who argued that impulsivity is a criminogenic factor present for the majority of offenders.

**Hypothesis Two: There will be a reduction in anger following intervention for both violent non-gang members and violent gang members.**

Support was also found for hypothesis two with both gang and non-gang participants for RESOLVE and SCP demonstrating a significant decrease in their levels of anger. The role of anger has been considered within the literature as an antecedent for violent offenders (Anderson, & Carnagey, 2004; Howells, 1998; Novaco, 1997; Zamble, & Quinsey, 1997) and more specifically within gang members (Decker, & Van Winkle, 1996; Klein, 1995; Moore, 2002; Vigil, 1998). Therefore, supporting the idea that anger management is needed to be a core component of violent offender rehabilitation (Polaschek & Dixon, 2001). Interestingly, given Ireland (2009) outlined how other emotions can be just as powerful as anger to drive a violent response, it would be interesting for future research to examine the role other emotions can play and the impact these interventions can have in addressing this.

**Hypothesis Three: There will be an increase in treatment readiness following intervention for both violent non-gang members and violent gang members.**

Findings were in support of this hypothesis with a significant improvement being observed post completion for both violent gang and violent non-gang participants' responsiveness to treatment for both RESOLVE and SCP. There was also a significant difference found between gang and non-gang participants and their level

of treatment readiness when undertaking the RESOLVE programme. This difference was also observed when comparing pre scores at the beginning of the programme. However, no significant main effect was observed between offender typology and SCP which may be attributed to the sample size as the effect size achieved was small. Another explanation could be linked to how different facilitators deliver the RESOLVE programme to those on SCP and as such the treatment style of the facilitators could also impact on how engaged participants were.

Comparing these findings to the literature, evidence shows that treatment programmes are most effective when offender readiness and motivation are initially high (Williamson et al., 2003). Given, the VTR questionnaire does not have a specific cut-off and as yet no normative data published for whether someone is ready to engage in treatment, it is not possible to draw any firm conclusions as to whether these reported levels impacted on their completion of the additional psychometrics. Therefore, future research is required to better understand the interaction of treatment engagement with both violent gang and violent non-gang offenders.

**Hypothesis Four: There will be a reduction in vengeful/ruminative thinking following intervention for both violent non-gang members and violent gang members.**

Comparing pre and post scores, the present study found a significant decrease in gang and non-gang participants' scores for vengeful thinking who had completed either programme which provides support for the hypothesis. Interestingly, at the beginning of the RESOLVE programme, gang participants were found to have higher levels of vengeful thinking than non-gang participants which confirms the current literature that gang members are more likely to be hyper-sensitive to instances of disrespect and, as

such, go through a process of revenge planning and fantasy (Cohen et al., 1996; Decker & Van Winkle, 1996; Klein, 1995; Moore, 2002; Vasquez et al., 2010; Vigil, 1998).

Tentatively, these findings suggest that perhaps more focus should be given to addressing this criminogenic need when working in treatment with gang members.

Whilst this was not found within the SCP cohort, on review of the descriptive statistics these were higher for gang members prior to undertaking the intervention than the scores obtained by both the non-gang participants and RESOLVE cohort. Again, it is considered that this may have been as a result of the sample size as the effect size achieved was small.

As outlined above, it is important to reflect on clinical as well as statistical change in the above findings. Clinical change on the psychometrics is considered by NOMS as the difference between pre to post programme responses moving in the desired direction (i.e., an increase or decrease post score) rather than any specific cut offs. Further information regarding the direction of change is detailed in Appendix I. Nevertheless, the descriptive statistics appear to show a sizeable decrease (more than half a standard deviation) suggesting that all participants have benefited from attending these programmes. However, it is important to be cautious, given the small sample sizes and further research is required to understand the robustness of these findings. This is key given that psychometric data may have been influenced by participant learning effects, socially desirable responding on account of the questions being posed, the participants being aware of the researcher working within Prison A, as well as any error in the measurement.

**Hypothesis Five: The effectiveness of the treatment interventions as measured by pre and post psychometrics will differ between violence non gang members and violent gang members. However, the direction of the effect is not known.**

The results suggest that there are no differences when analysing programmes and offender typology. This indicates that both sets of participants appear to have profited from the offender behaviour programme they were exposed to. Therefore, it could be argued that the criminogenic needs that the programmes aim to address (impulsivity, anger, treatment readiness, vengeful/ruminative thinking and aggression) are similar for both types of offenders. This goes some way to support the findings of Esbensen et al's. (2009) study that there were no specific criminogenic factors unique to gang members. However, it is important to interpret these current findings tentatively as the samples were not evenly distributed and may account for the high variation in scores. Furthermore, whilst RESOLVE and SCP are aimed at providing participants with the skills to reflect on their lives, choices and consequences, it is clear from Wood and Alleyne's 'Unified Theory of Gang Involvement', both programmes did not appear to address some of the factors that they identified as specifically linked to gang membership, such as status, power and the need for excitement. This suggests that the way that gangs are explained have not fully been captured by the psychometric measures used.

A final reflection on the findings achieved from the present study is that these treatment effects cannot solely be attributed to the programmes attended as other variables may explain the improvements observed. For example, participants may have accessed other psycho-educational courses or had an increase in family support or change in personal circumstances which contributed to the responses given.

### 3.5.2 Qualitative

As a means of strengthening the statistical analyses and gaining a more in depth understanding of gang membership and desistance, a series of interviews were undertaken to understand participants' views of a street gang. Emphasis of what a street gang is was placed on individuals' perceptions and behaviour as well as the organisational structure. The themes to emerge can be paralleled to other definitions or typologies (Brown, 2000; Gordon, 2000; Hallsworth & Young, 2004; Home Office, 2006; Weerman et al., 2009). Specifically, participants shared a common view that a street gang is usually identifiable through their name, language and clothes worn and collectively would be involved in the conduct of criminal activity. There was a sense that hierarchy and geographical territory were important, although this was not a view communicated by all the participants. Interestingly, the issue of youth was not considered synonymous to being in a street gang, which conflicts with the most influential definition in the literature (Weerman et al., 2009). Instead the current findings lend support to viewing street gangs more broadly. The subordinate theme *unique* (1.2) also alluded to the idea that even those who view themselves as gang members find it difficult to provide a shared definition. This strengthens Esbensen et al's., (2001) and Peterson's (2000) views that stipulate definitions can exclude other unknown or misunderstood elements of gang life. Subsequently, it would be important for future research to continue to utilise the method of individuals self-identifying being in a gang alongside objective file evidence.

Regarding motivators that lead to individuals joining a gang, it was considered by participants that they chose to do this in order to gain a sense of belonging, help them to experience a sense of excitement which was otherwise missing in their life, and create an image which in turn elevated their status, popularity and power. Furthermore,

it also afforded a degree of protection from the environment they were in and for material possessions to be acquired. In turn, this notion of money, fast cars, jewellery and clothes linked back to having status and popularity. These findings provide support to the factors noted in Wood and Alleyne (2010) 'Unified Theory of Gang Involvement'. The authors suggested that criminal behaviour can occur independently of gang membership or at the same time and that social and individual factors shape an individual's view that the gang will reward them in far greater terms than just criminal activity. Moreover, participants also confirmed Wood and Alleyne's idea of how self-image, self-esteem and preserving a male identity during adolescence are key factors contributing to gang membership. These findings also lend support to Raby and Jones (2016) who found that individuals who were susceptible to join a gang did so because of a perceived need for protection (Barnes, et al. 2012) and an increase in their social status (Alleyne & Wood, 2013; Dmitrieva et al., 2014). Given that masculinity and self-esteem were not measured within the quantitative component, the use of a wider variety of psychometric measures could be considered in future rehabilitation evaluations to help understand if these treatment needs are targeted effectively. The present study also reinforces the need for practitioners and policy makers to acknowledge the gains participants achieve from associating with their gangs. This would assist in providing the necessary support and in developing initiatives to help individuals in the community who are at risk of engaging in gang membership to understand how they can achieve the same needs in more appropriate ways. These factors should also be considered in the design of treatment for gang members who have already been exposed to this lifestyle to help promote the path of desistance.

Interestingly, some of the participants in this present study promoted the idea of individual choice, recognising that not all individuals growing up in an area join a gang.

It could be inferred from the theory hypothesised by Wood and Alleyne (2010), that there are individual characteristics such as personality traits which may in fact lead certain individuals to join a gang and for others to take a different path. Subsequently, given these breadth of factors, a clinical implication is the importance of a thorough assessment process to understand an individual's pathway in to a gang. In turn, this may help to inform practice and refine decisions for appropriate intervention allocations.

Despite these reported benefits, individuals considered that the negative consequences (such as victimisation and trauma) can lead to fatigue with this lifestyle. Whilst maturity was considered a theme in helping develop critical reflection, all participants ranged from early to middle adulthood at the point they engaged in gang related violence. Therefore, it was considered that other factors were at play in influencing their choice to desist. There is a small amount of research in the UK directly exploring the issue of desistance (Gormally, 2015; Moloney et al., 2009). Aldridge and Medina's (2007) study focused on youth gangs and found three important factors which contribute to the process of desistance; a thought process, significant turning point and opportunity. These findings are similar to the present study where participants viewed that disengaging was a gradual process and comes at a point when they no longer believe membership meets their needs, values or priorities (thought process). All participants considered that they were on the path to desistance and no longer identified as a gang member, although they acknowledged they needed to continue to strengthen this during their sentence to avoid returning to this particular lifestyle. The themes to emerge suggested participants considered that they started to view aspects of their environment and lifestyle as unappealing and it was only when prompted by a life changing event such as being victimised (turning point) or a

difference in circumstances (being in prison, fatherhood) which effectively pushed them to start to disengage away from their gang. This then led to the realisation that there was an alternative path (opportunities) to follow, such as gaining legitimate employment or education in order to continue to maintain this process of desistance. These motives overlap with the patterns of thinking in other offenders and as such it is suggested that gang disengagement is not overly dissimilar to the general criminality desistance process (Maruna, 2001).

The importance of motivation and desire to change noted in the current study supports the literature on how internal motivation is integral to maintain more positive and legitimate behaviours (Chambers et al., 2008; Ryan et al., 1995). Furthermore, this strengthens the claims of Aldridge and Medina (2007) regarding the importance of cognition in the process of disengagement. Some participants also described themselves as having disengaged prior to rehabilitative methods.

A final reflection from the findings was how all participants considered the use of peer mentors in addressing the gang problem. Specifically, it was highlighted how younger individuals at risk of joining a gang in the community may listen to mentors and how this would also assist in the treatment interventions delivered and post resettlement through care process for ex-gang members. In turn the inclusion of reformed gang members could help professionals address some of the challenges occurring when working with this population and be used as the foundation to improve the rehabilitative process. Future research could then focus on the impact mentoring has on the development and choices of gang members. The community was also considered a key factor by participants and highlights the importance of how to support not only at risk youth but those who choose to desist. It is also evident from participants perspectives that additional schemes are needed to remove barriers that both the

communities and the gang members see as preventing change. Subsequently, policy makers would benefit from speaking to ex-offenders to assist in the process of change.

### 3.5.3 Methodological strengths and limitations

There are several limitations in the present study which may have impacted upon the interpretation of findings. The sample size for the quantitative study was small which was compounded by the practical and resource difficulties at Prison B. Whilst it is acknowledged that the SCP is a longer programme and as such yields smaller sample sizes in comparison to those who attend RESOLVE, ideally it was hoped that the research would have had an overall larger sample. Small sample sizes not only increase the likelihood of making Type II errors, but also limit the generalisability of findings across the High Security Estate as well as the wider population. Nevertheless, investigating the impact of violence interventions for gang members, as far as the researcher is aware, is the first of its kind within the UK and provides a platform for future research. The recruitment of participants may have also created bias as it could be argued that participants who were on the route to desistance were more likely to volunteer and converse with the researcher. It may be that participants who did not wish to consent for their psychometrics to be used may have produced different results. Furthermore, owing to no attrition on SCP and small attrition rates for RESOLVE, men who had dropped out of the programme were not interviewed in the second part of the study.

Another limitation is how post hoc tests were not carried out to compare the differences for participants having had a period of consolidation. This would have allowed one to explore whether the data continued to change in the desired direction. Moreover, owing to the sample being obtained from a long term static population,

reconviction rates were also not assessed. However, when taken in addition to comments made as part of the qualitative study, the results do show a positive trend towards the usefulness of the interventions, certainly for gang members. Using a larger sample size across different category prisons in future research could help establish the effectiveness of the interventions to a greater extent. Policy makers, practitioners and academics are also encouraged when undertaking any future rehabilitation evaluations to consider reviewing the content of the programmes alongside the models of gang offending as a starting point. In turn, this may encourage the use of a wider range of psychometrics consistent with the gang engagement literature to help capture whether these are addressed within the generic programmes offered in a custodial setting.

Regarding the qualitative study, nine interviews were undertaken and in line with Braun and Clarke (2013), this is considered adequate for thematic analysis. Furthermore, the choice of methodology allowed for a more in-depth exploration of the views of gang. Whilst a qualitative approach does not confirm or support hypotheses, the purpose is to develop ideas which in turn allows for further exploration. Determining patterns within the data in order to draw meaningful conclusions can be subject to bias. However, to maximise the rigour of the themes, inter-rater reliability was attested. There was agreement on the evidence of the themes derived which confirmed clarification that the themes were driven from the data rather than by the researcher's theoretical interests.

The current study may have been strengthened by interviews being more in-depth and a more interpretative form of analysis being used when analysing transcripts (e.g., using Interpretative Phenomenological Analysis; IPA). However, it was considered a benefit of the study to have a higher number of participants than would be used in an IPA study and to draw out themes across interviews rather than an additional

focus on individual experiences. As such, given the flexibility of thematic analysis, it was considered an appropriate method by which to analyse interview transcripts. It is suggested that this study could be built upon by using a series of follow up interviews with the participants to assist in understanding whether the factors associated with desistance were stable overtime and whether the effects of the interventions were maintained. Moreover, a longitudinal study of former gang members and the process of community re-integration may be helpful in understanding further the continued needs of gang members who wish to desist from this lifestyle.

### 3.6 Conclusions

The present study is the first of its kind to evaluate the impact of rehabilitative methods when comparing violent gang participants and violent non-gang participants within an UK prison sample. The findings showed a positive trend towards decreasing impulsivity, anger, vengeful thinking and thoughts of aggression and increasing treatment readiness in both sets of participants. Importantly, the research found no significant interaction between violent gang and violent non-gang offenders. Practically, this suggests that these treatment needs are evident in both offender populations and both the programmes are effective at addressing these. However, it is clear that ruminative/vengeful thinking was more pronounced for gang members at the beginning of the RESOLVE programme which suggests that greater focus should be given to this criminogenic need during treatment. Further work is also required to better identify specific treatment needs for gang members as it is not entirely clear whether other factors (e.g., status, image and self-esteem) linked to gang membership are adequately assessed in the first instance.

The qualitative component has also added to the knowledge of the psychology of gang membership. Factors such as friendship, criminal activity and a sense of identity were found to be particularly important in defining members of a gang, with acknowledgment being that a gang is a complex structure best understood by the individual themselves. Engagement factors that were put forward were a sense of belonging, gaining an image, sense of excitement, protection, material gains whereas the process of desistance was considered to be aided by the negative consequences such as prison (with reference to being separated from loved ones) or trauma and responsibilities such as parenthood. Intrinsic motivation was also found to be particularly important in gang members' view of disengaging from gangs. Therefore, the findings of the study supported not only the 'Unified Theory of Gang Involvement' put forward by Wood and Alleyne (2010) but also Maruna's theory of desistance. However, it was evident from participant responses that further work needs to be undertaken by policy makers in respect to prison and community initiatives as a means of improving measures for those at risk, as well as support to help strengthen the desistance process for ex-gang members.

Overall, the findings obtained from this research can be used as a platform for further research. However, it would be important to use UK samples rather than using research findings from other countries as consistent differences have been found between gangs from different areas (Klein & Maxson, 2006).

## **Chapter 4**

### **Critique of the Psychological Inventory of Criminal Thinking Styles**

#### **(PICTS)**

#### 4.1 Introduction

Walters (1990) hypothesised that the criminal lifestyle is underpinned by a number of dynamic and interactive factors derived from the Lifestyle Theory. This theory defines criminal lifestyle in terms of interpersonal intrusiveness, irresponsibility, self-indulgence and social rule breaking and hypothesises that these behaviours arise from three interlinked variables: conditions, choices and cognition. Conditions refer to internal factors (intelligence and temperament), external influences (peers and family) and synergistic factors (person x situation) which impact on an individual's actions. Whilst these conditions do not necessarily cause criminal behaviour, they can make an individual more vulnerable to future criminal involvement which, in turn, contributes to a choice being made. Choice is defined as the range of options available to an individual in life. Cognition refers to the rationalisation of choice decisions in order to reduce or eliminate any feelings of guilt that might arise from these. Therefore, once a choice has been made, an individual enters the transitional phase and a complex series of thoughts and ideas evolve into a lifestyle supporting belief system. This occurs through the development of a schematic sub-network of goals, values, thinking styles and attitudes, and signals the beginning of the commitment an individual makes to a particular lifestyle.

This schematic sub-network then becomes self-perpetuating, making commitment stronger and increasing the likelihood of the lifestyle being maintained. A process of change may occur for an individual depending on the extent to which their lifestyle is effective in helping them to achieve their goals (Shaver, 1996). Walters (2000) suggested that for change to occur and a new lifestyle adopted, the individual must consider taking responsibility for their choices, increase their self-confidence to

change, give this meaning and consider the impact their current actions are having on the community.

Applying this theory to a criminal lifestyle, Walters (2006) suggested that individuals, during the initial phase, will be driven by a curiosity and excitement to engage in crime as well as by factors such as socialisation, stress and availability of resources. Other factors such as existential fear and peer influence may also serve as a means of considering criminality (Fisher & Bauman, 1988). The incentive for a continued criminal lifestyle develops when the individual feels their self-efficacy increasing and constructs thinking styles supportive of crime. Involvement also continues due to a fear of losing the benefits that criminal activity affords. For individuals who enter the maintenance phase of this criminal lifestyle, Walters (2006) suggests that they will have now developed a congruent belief system which serves to help them maintain the behaviour. Change is reported to occur only when the individual either reaches burnout or maturity. Here an offender begins to experience either decreased pleasure in maintaining a criminal lifestyle or has an increased desire for goals which are incompatible with their lifestyle (family commitments). Having drawn on this theory and building on Yochelson and Samenow's (1976) work, Walters (1990) developed eight thinking styles, which he believed to be linked to a criminal lifestyle. This resulted in the development of the Psychological Inventory of Criminal Thinking Styles (PICTS; see Appendix K for a description of each thinking style).

#### 4.1.1 Overview of the tool

The PICTS is a self-report measure which is given to respondents who have been involved in criminality or are known to the Criminal Justice System. The first version was published in 1990 and comprised of 32 items (four items per thinking

style). Walters (1990) reported how the eight thinking styles attained stable coefficients, i.e., the items correlated well with past criminality. However, he acknowledged that it was not possible to determine whether respondents were being honest and so confidence was reduced in the psychometric measure. The PICTS was subsequently revised to include two validity scales; a Confusion scale designed to identify a “fake bad”, malingering, or “yes-saying” response set, and the Defensive scale to assess respondents trying to create a favourable impression of their psychological stability. A third edition was published in 1992, whereby the number of items for each thinking style scale was doubled from four to eight. However, Walters (2002a) cites an unpublished study that he undertook in 1994 which revealed that, despite the changes, the validity scales reduced the accuracy of the PICTS and weakened the PICTS utility. In order to improve the PICTS psychometric properties, eight items were removed as well as reversing the scoring of the Defensive scale. Walters (2001a) also questioned the importance of including a scale which measured fear of change as conceptualised by the Lifestyle Theory. Additional scales from the existing PICTS measure were also created as a result of several factor analyses (Walters, 1995; Walters, Elliott, & Miscoll, 1998) and content analysis (Walters, 2002b). This led to the publication of Version Four which now comprises of 80 items organised into the following scales:

- Two validity scales: Confusion and Defensiveness.
- Eight Thinking Styles (See Appendix K).
- Fear of Change Scale.
- Two general content scales Current Thinking and Historical Thinking.
- Four Factor Scales: Problem Avoidance, Interpersonal Hostility, Self-Assertion and Denial of Harm.

To complete the PICTS, individuals are advised to have at least an average reading age of between 11 and 12 years old. There is no time limit although under normal conditions, individuals should be able to do so in fifteen to thirty minutes. Respondents are required to rate each item on a 4-point Likert Scale where they consider if they Strongly Agree, Agree, are Uncertain or Disagree with each statement.

The items are totalled to produce a raw score which is converted into T scores (a transformation of raw scores to standard scores), with the Defensive scale reverse scored. The interpretative guidelines suggest that the first step is to determine whether a Confusion T score of above 70 or a Defensive T score of above 65 has been achieved. This would mean that the results are compromised by either a fake bad or good response set and, as such, should be interpreted with caution, if at all. The second step is to explore the content scales. A T score of above 55 on the Current scale suggests a belief system within the respondent is still active, or if a T score is achieved on the Historical scale above 55 a criminal belief system has been active in the past. However, if there is no elevation on either scale, this implies that the belief system is absent, weak or hidden and the assessor is advised not to interpret the measure any further. The third step is to examine the eight thinking styles to identify the top three in terms of their T score elevation. The guidelines suggest that these are averaged and compared to the contrasting average T scores (above 50) of the remaining thinking styles. This reveals whether the profile is differentiated (the score differs by more than 5 T scale points) or undifferentiated (does not differ). Whilst both can still be interpreted, a differentiated profile allows the assessor to advise the respondent on how best to challenge their thoughts and beliefs associated with the thinking style. Although the scores on the factor scale and fear of change scale can be incorporated into the interpretation, Walters

advises that they are there to supplement the thinking styles and, as such, are not necessary for the assessor to review.

## 4.2 Characteristics of a good psychometric measure

Kline (1986) and Field (2009) argue that the essential components to assess the quality of a psychometric measure are the reliability, validity, discriminatory power and the appropriateness of the normative data. These concepts are discussed below in order to determine whether the PICTS is an accurate, replicable, valid, standardised measure, free from predictive bias (Schultz & Whitney, 2005).

### 4.2.1 Reliability

Reliability is fundamental to psychometric measurement and refers to the degree to which a tool measures a construct and produces consistent results over time and under different circumstances (Howitt & Cramer, 2005). If a test is reliable then the difference observed in a respondent's scores can be attributed to the changes in them rather than being considered as a result of the tool. A number of factors pertaining to reliability are discussed below:

#### 4.2.1.1 Internal reliability

Kline (1993) defines internal reliability as the extent to which each item within the psychometric tool consistently measures the same construct. If internal reliability is achieved, it can be assumed that different items in the test contribute equally to the overall score. The most commonly employed measure to assess internal reliability is the Cronbach's Alpha and, in line with George and Mallery's (2003) description, the alpha ranges from 0 to 1. When considering the cut-off to determine internal reliability, Nunnally (1978) argued that a minimum co-efficient of 0.70 is necessary; yet Kline

(2000) suggests that acceptable internal reliability ranges from between 0.60 to 0.70. However, Cattell (1973) argued that a measure which is comprised of many items that has very high internal reliability can appear as a bloated specific and thus antithetical to being valid. This means that if all items are highly consistent then they will be highly correlated raising questions that the psychometric measure is too specific in nature. In the development of the PICTS scale, Walters (1995) reported that there was an acceptable level of internal reliability for the eight thinking styles which ranged from 0.59-0.78. However, the two validity scales were considered to be poor (0.42 and 0.36). In Version Four the alpha co-efficient measures of internal consistency for each of the 17 scales ranged between 0.55 and 0.88 for the male offender cohort tested and in the range of 0.54 -0.88 in the female cohort. Walters concluded that the PICTS possesses moderate to moderately high internal consistency across all scales. These figures appear to be slightly lower than the reliability guidelines for internal reliability and if the above alpha cut-off was to be applied several scales below 0.70 would be considered to have questionable internal reliability. Another consideration is how the number of scales has been increased over the different versions and, as such, the measure may suffer from the reliability being inflated.

Internal reliability has also been reported for the PICTS scales when testing on different cultural samples and similar results were found to Walters (Table 1). It is important to note that whilst the Defensive scale continues to have questionable internal reliability, particularly when using an English Sample, Palmer and Hollin, (2003; 2004a) used Version Three of the PICTS rather than the current version. Therefore, it is important for further studies to be conducted particularly on forensic samples within the UK, in order to determine the PICTS applicability.

Table 1

*Internal reliability for the PICTS Version Four*

Studies	Sample	PICTS											
		Cfr	Dfr	Cur	His	Moll	Co	En	Po	Sn	So	Ci	Ds
Healy & O'Donnell (2006)	N= 72 Irish adult	.72	.59	.89	.77	.53	.79	-	.76	.62	.62	.77	.77
Megreya, Bindemann & Brown (2015)	N = 750 Egyptian adult	.56	.64	.70	.82	.91	.57	.53	.65	.60	.61	.53	.55
Palmer and Hollin (2004a)	N= 515 English Youth Offender	-	-	-	-	.58	.73	.61	.64	.48	.66	.62	.73
Palmer and Hollin (2003)	N= 255 English Adult Offender	.42	.36	-	-	.68	.81	.72	.8	.43	.64	.73	.82

## 4.2.1.2 Test-retest reliability

For a psychometric measure to have test-retest reliability the tool must yield, in the absence of intervention, the same outcome at different assessment intervals (Kline, 1993). Kline suggests that a correlation analysis is the most effective way to determine test-retest reliability. A minimum level of 0.70 needs to be achieved as if the standard of error increases below this, it will render the interpretation of the data uncertain (Guilford, 1956). However, other factors can impact on the psychometric measure which does not necessarily mean it is unreliable such as a respondent under the

influence of medication. Additionally, it is important when considering the studies which have measured re-test reliability that the time period used is not too short as this could result in fatigue or the respondent remembering the questions posed. Kline (2000) believed that at least a three month period was sufficient, although recognised that this was flexible depending on the type of respondent.

Walters (1995) examined the re-test reliability of Version Three of the PICTS during two and twelve weeks. To achieve this, Walters originally administered the PICTS to 450 inmates during a period of several months where norms were achieved for each of the thinking styles. To evaluate the test-re-test reliability; one group of twenty five participants were randomly sampled to complete the PICTS again after a two week period, a second group of twenty five participants undertook the PICTS again after twelve weeks and a third group of twenty five participants were retested after both time periods . With the exception of the defensive scale (0.47) at the two week re-test point; re-test reliability ranged from moderately high to high (0.72-0.85). A weaker correlation was found at the twelve week point which ranged from 0.57 to 0.72 across the validity and eight thinking style scales. Similar findings were achieved when using a female offender sample (Walters et al., 1998) suggesting that the PICTS had good temporal stability.

In order to address the concerns with the reliability of the validity scales, Walters (2001b) amended the items and found that the correlation co-efficient exhibited a level of stability equivalent to that of the thinking styles for Version Four of the PICTS. It is important to note that some of the data was missing for the male sample with data being available for the ten week interval only. In contrast, better levels of re-test reliability for females were found (0.87 and 0.67 at the 12 week interval). Problems with missing data, together with studies that were either not published or used small

samples, were acknowledged by Walters (2002a). This led to him undertaking a meta-analysis as a means of strengthening the reliability of the PICTS. Test-retest reliability found most of the scores for the eight thinking scales remained in the same range between testing. An unexpected result was found when comparing the validity scales between gender groups. The male cohort at the ten week interval was below the acceptable correlation standard (0.64 and 0.47) whereas the female cohort was within acceptable standards (0.87 and 0.67). This suggests that further research needs to be conducted to understand why these differences occurred.

Overall, the research reviewed implies that there is satisfactory reliability with the eight thinking scales and the content and historical scales. However, as detailed, the figures appear to be slightly lower when applying the guidelines for internal reliability and it could be argued that the re-test timeframe was too short. Furthermore, independent research is also required and should be conducted on a wider range of cultural forensic populations for Version Four of the PICTS. This is key given that the majority of studies have been conducted by the developer of the PICTS whereby an Allegiance effect (Hollon, 2006) may have occurred.

#### 4.2.2 Validity

Validity is the second major characteristic of a psychometric measure with Kaplan and Saccuzzo (2009) and Kline (1998) framing this concept into a question; does the psychometric measure what it intends to measure? Validity can be assessed in the following ways:

#### 4.2.2.1 Face validity

This refers to the appearance of the items relating to the purpose of the test and on surveying the items of the PICTS, are they considered relevant to the construct of criminal thinking. However, Kaplan and Saccuzzo (2009) advise against considering face validity as it is too subjective. Furthermore, if the respondent is able to understand and recognise the purpose of the measure, this may alter their response, particularly among offender populations who attempt to deny or conceal their behaviour on a regular basis (James et al., 2005). In an attempt to resolve these issues, the PICTS includes two validity measures in order to manage response bias. However, given the issues reported with the internal and re-test reliability of these scales, it is clear that these either need to be revised or for consideration to be given to the inclusion of further validity scales. In turn, this would ensure the assessor was confident that the PICTS presented an accurate view of the respondent.

#### 4.2.2.2 Content validity

Content validity is based upon logical evaluation rather than statistical analysis (Kaplan & Saccuzzo, 2009) and focuses on whether the psychometric measure covers all crucial and relevant aspects of the measured concept (Tavernier, Totten, & Beck, 2011). Evaluating the content of the psychometric measure requires careful consideration of the appropriateness of each item, ensuring that test items do not fail to capture elements of the measure. Therefore, if the construct has a clear and consistent definition, the level of content validity should be high (Haynes, Richard, & Kubany, 2005).

In the case of the PICTS, content validity would be the extent to which the measure samples all aspects of criminal thinking. In the development of the original

PICTS, Walters (1995) researched the academic literature and also held discussions with offenders who were undertaking offender behaviour interventions. Constructing the psychometric measure in this manner ensured information was first hand from offenders and so maximised the congruence of the measure with the criminal lifestyle. Walters repeated this procedure for his third version and modified the items accordingly. Walters concluded that as the PICTS is designed to measure the eight thinking styles, it would seem to possess content validity as each scale is devoted to the thinking styles. However, it could be argued that this measure is biased by what Walters deemed as relevant to criminal thinking. For example, cognitive indolence continues to remain unique to the PICTS when comparing other measures that focus on cognition.

#### 4.2.2.3 Construct related validity

Whilst content validity focuses on the inclusion of whether all relevant items relate to what is being measured, construct validity focuses on the theoretical integrity of the measure. This means the degree to which PICTS items relate to theoretical and conceptual understanding of criminal thinking. A typical way in which to establish construct validity is through Factor Analysis. This helps to determine whether each scale contributes to the scale outcome or whether there are other factors that contribute to the outcome (Kline, 2000). The initial factor analysis undertaken by Walters (1995) resulted in four factors being established from the scales created, which were later incorporated into Version Three of the PICTS; problem avoidance, interpersonal hostility, self-assertion and denial of harm. This was then cross-validated in the female offender group study (Walters et al., 1998) and using a Goodness of Fit Index of 0.92 and a root mean squared residual of 0.5, the results revealed a good fit between the two data sets.

Using the original data from Walters' study (1995), Egan, McMurrin, Richardson and Blair (2000) carried out a principle components factor analysis on the eight thinking scales. They found one factor on which all of the eight thinking scales loaded which accounted for 58.8% of the variance in scores. When a two factor solution was applied there was some overlap between the two factors extracted leading to the conclusion that the measure was assessing a unitary construct rather than eight distinct thinking styles. This was supported by Palmer and Hollin (2003) who performed a similar analysis on an English male prisoner sample.

More recently, Walters (2012; 2014) has undertaken a series of Factor Analyses on the scale of the PICTS and has conceptualised a hierarchical framework to illustrate criminal thinking. This framework details how a higher order construct of General Criminal Thinking (GCT) is supported by two correlated factors: Proactive Criminal Thinking (PCT) which links to Mollification, Entitlement, Power Orientation and Super-Optimism thinking styles; and Reactive Criminal Thinking (RCT) which encompasses Cut-Off, Cognitive Indolence and Discontinuity thinking styles. By analysing the PICTS in this way, a high internal consistency for GCT (0.84-0.86), PCT (0.78-0.88) and RCT (0.70-0.73) has been shown. Whilst these findings are promising, the research reviewed does not make clear if the factorial structure of criminal thinking styles exists with different cultures. For example, Bulten, Nijman and Van Der Staak (2009) found a two factor structure as did Palmer and Hollin (2003) and factor analysis could not be completed by Megreya et al. (2015) due to the small sample size. Therefore, there is a clear need for further research to be undertaken on cross cultural samples to determine if similar results are achieved.

Another consideration when examining Walters' findings is how construct validity appears to have been correlated with general criminality and does not

discriminate between different offender typologies. Lacy (2000) compared the PICTS scores of drug and non-drug offenders. Whilst there were no significant differences found between Mollification and Sentimentality, the remaining six thinking scales were found to be significant, with the drug offender population scoring higher. Therefore, this led to the conclusion that, whilst the two groups share many of the same thinking styles, the extent to which these thinking styles are used do differ. More recently, Low and Day (2017) investigated whether subtypes of violent offenders can be meaningfully identified when using the PICTS. Mean PICTS *T*-scores were calculated and compared with offenders generally. The violent offender group held a moderate level of beliefs supportive of a criminal lifestyle (indicated by the GCT Scale score). The group also demonstrated some signs of PCT and RCT, although the difference between these scores was insufficient to infer a trend. Cluster analysis was then used to identify three different violent typologies and compare the PICTS data pre and post treatment. These findings suggest that different types of violent offenders gained differential benefit from the completion of the multi-modal violence interventions. Therefore, it was deemed that criminal thinking may not always be a treatment need for all violent offenders and supports the rationale for the development of more sophisticated assessments to measure cognition.

Construct validity can further be divided into subcategories of convergent and discriminant validity (Haynes et al., 1995) which Walters and Geyer (2005) chose to focus on when evaluating the PICTS with the Personality Assessment Inventory (PAI; Morey, 1991). Using a process of pattern matching, Trochim (1989) revealed that the PICTS does measure criminal thinking and meets the minimum standards for construct validity. Furthermore, the PICTS validity scales displayed clear signs of convergent and discriminant validity when correlated with the PAI impression management scales.

This is an interesting finding and adds weight to the utility of these scales given that reliability had been considered questionable. Furthermore, this reinforces other researchers (Matthews & Deary, 1998) who argue that individuals' criminal thinking should be compared with their basic personality traits as this will contribute significantly to encompassing psychological phenomena.

#### 4.2.2.4 Criterion related validity:

Criterion related validity can either be concurrent or predictive in nature.

Concurrent validity of the PICTS is assessed by considering the extent to which a measure correlates with other validated measures assessing the same construct at the same time (Kline, 1998). Walters (2001b) identified that, to assess this type of validity, the PICTS needs to be correlated with measures of prior criminality (prior arrests, prior incarceration, age at first arrest and age at first prison sentence). Using the data from his male sample, Walters (1995) found that all the PICTS scales correlated moderately, with the Historical Scale providing the best measure of an offender's past criminal involvement. The PICTS has also been correlated with the Lifestyle Criminality Screening Form (LCSF-R; Walters, 1998) and the Psychopathy Checklist Revised (PCL-R; Hare, 1991) with Walters and DiFazio (2000) concluding that both measures do correlate with the PICTS.

Predictive validity is typically assessed using Receiver Operating Characteristic analysis (ROC) and Area Under the Curve estimates (AUCs). Early research focusing on the predictive validity of the PICTS has yielded mixed results in terms of the prediction of future behaviour for both female and male offenders (Palmer & Hollin, 2004a; Walters, 1997; Walters & Elliott 1999). Palmer and Hollin (2003) nevertheless, found some evidence of the PICTS' utility as a measure of change over

the duration of a prison sentence, although further work is needed in this area to conclude more confidently.

Gonsalves, Scalora and Huss (2009) used the PCL-R and the PICTS to determine if both measures could predict recidivism. Findings revealed that recidivists scored significantly higher on Factor 2 of the PCL-R and total score of the PICTS. Furthermore, only the Super-Optimism factor significantly contributed to the prediction model (Walters, 2005). However, it is important to consider sample type as this study used forensic inpatients rather than prisoners, limiting the generalisability of the conclusions made. Nevertheless, they also found that the PICTS improved the predictive utility of the PCL-R suggesting that it may be worthwhile to include this self-report measure in more dynamic assessments.

More recently, Walters and Lowenkamp (2016) found that the PICTS was capable of predicting recidivism in a large group of male and female offenders serving community sentences. These findings were comparable to those obtained in studies on prison inmates (Walters, 2012) despite the fact that the mean overall criminal thinking score was 18% lower in the current sample than it was in samples of released prisoners. A further study (Walters, Deming, & Casbon, 2015) found when reviewing male sex offenders released from prison-based sex offender treatment that the PICTS scores for GCT, PCT and RCT predicted general and “failed to register” recidivism. However, only GCT and PCT attained incremental validity relative to the actuarial assessment Static-99 but this was only for predicting “failed to register” recidivism. Therefore, whilst these different research studies have shown that criminal attitudes can predict future outcomes and may be useful in treatment evaluation, there are a number of inconsistent findings which warrant further exploration.

### 4.2.3 PICTS normative data

In order to determine the utility of a psychometric measure, normative information is an essential requirement as it provides a basis on which test scores can be compared. Normative data for the PICTS was originally collected from an American male sample (Walters, 1995). Information was separated for males in minimum, medium and maximum security federal prisons ( $N = 450$ ; 150 each security level). The norms have not been further separated into age groups within the manual. Walters et al. (1998) widened the sample by exploring the measure on a female American sample ( $N = 227$ ; 127 state, 100 federal). Similarly, an absence of age ranges is missing. This raises questions regarding the generalisability of the measure to the individuals being assessed, particularly if the offender is in early adulthood, i.e., 18 years old. See Table 2 for the mean scores.

Table 2

*Normative data from the original PICTS Version One*

	Sample				
	USA Prison Min Security Male)	USA Prison Med Security Male)	USA Prison Max Security Male	USA Prison State Female	USA Prison Federal Female
Cfr	<i>M</i> : 12.94 <i>SD</i> : 3.00	<i>M</i> : 14.37 <i>SD</i> : 3.24	<i>M</i> :14.61 <i>SD</i> : 3.71	<i>M</i> :15.82 <i>SD</i> : 3.88	<i>M</i> :14.34 <i>SD</i> :4.19
Dfr	<i>M</i> : 16.15 <i>SD</i> : 3.17	<i>M</i> : 15.75 <i>SD</i> : 3.09	<i>M</i> :13.97 <i>SD</i> : 3.03	<i>M</i> :13.25 <i>SD</i> : 3.15	<i>M</i> :13.96 <i>SD</i> : 2.84
Moll	<i>M</i> : 12.31 <i>SD</i> : 3.78	<i>M</i> : 12.15 <i>SD</i> : 3.73	<i>M</i> :14.09 <i>SD</i> : 4.30	<i>M</i> :13.86 <i>SD</i> : 4.18	<i>M</i> :13.66 <i>SD</i> : 4.80
Co	<i>M</i> : 11.10 <i>SD</i> : 3.67	<i>M</i> : 12.15 <i>SD</i> : 5.31	<i>M</i> :15.22 <i>SD</i> : 5.01	<i>M</i> :18.34 <i>SD</i> : 4.79	<i>M</i> :16.35 <i>SD</i> : 6.03

En	<i>M:</i> 11.73 <i>SD:</i> 3.50	<i>M:</i> 11.92 <i>SD:</i> 3.70	<i>M:</i> 14.41 <i>SD:</i> 3.87	<i>M:</i> 14.24 <i>SD:</i> 3.72	<i>M:</i> 14.25 <i>SD:</i> 14.34
Po	<i>M:</i> 11.69 <i>SD:</i> 3.30	<i>M:</i> 11.39 <i>SD:</i> 3.48	<i>M:</i> 13.56 <i>SD:</i> 4.61	<i>M:</i> 14.07 <i>SD:</i> 4.23	<i>M:</i> 14.34 <i>SD:</i> 5.56
Sn	<i>M:</i> 16.89 <i>SD:</i> 3.81	<i>M:</i> 17.05 <i>SD:</i> 4.07	<i>M:</i> 18.02 <i>SD:</i> 3.48	<i>M:</i> 18.62 <i>SD:</i> 3.79	<i>M:</i> 18.25 <i>SD:</i> 4.39
So	<i>M:</i> 13.67 <i>SD:</i> 3.39	<i>M:</i> 13.77 <i>SD:</i> 3.97	<i>M:</i> 15.77 <i>SD:</i> 4.39	<i>M:</i> 16.92 <i>SD:</i> 4.13	<i>M:</i> 16.50 <i>SD:</i> 5.39
Ci	<i>M:</i> 14.13 <i>SD:</i> 4.65	<i>M:</i> 14.35 <i>SD:</i> 4.96	<i>M:</i> 16.69 <i>SD:</i> 4.69	<i>M:</i> 18.25 <i>SD:</i> 4.48	<i>M:</i> 17.58 <i>SD:</i> 5.93
Ds	<i>M:</i> 12.57 <i>SD:</i> 4.43	<i>M:</i> 13.45 <i>SD:</i> 4.78	<i>M:</i> 16.39 <i>SD:</i> 4.96	<i>M:</i> 18.50 <i>SD:</i> 4.96	<i>M:</i> 17.40 <i>SD:</i> 6.29

Since the development of PICTS, further analysis has been undertaken on offender populations (Walters & McCoy, 2007). The PICTS has also been translated into Spanish although there appears to be no published research where normative data is available. Emerging data have begun to be published on the PICTS for other cultural populations. This includes incarcerated offenders within a Dutch (Bulten et al., 2009), Egyptian (Megreya et al., 2015) and English sample (Palmer & Hollin, 2003) as well as a community offender based sample in Ireland (Healy & Donnell, 2006). Outcomes for these samples are summarised in Table 3, from which some disparities can be seen. Normative data from the Egyptian sample obtained by Megreya et al. (2015) found that offenders scored higher on five thinking styles (Mollification, Entitlement, Power Orientation, Sentimentality and Discontinuity) in comparison to English and Dutch offenders. Moreover, English offenders in Palmer and Hollin's study scored higher on Cognitive Indolence than the Dutch sample. Interestingly, the samples outside of the American samples were male offenders and, as such, utility on a female offender population within these countries remains unanswered. Therefore, it is clear that a more comprehensive review is needed on forensic populations both in custody and in

the community in order to understand the reliability and validity of the PICTS further. This is key given that the PICTS has been used, alongside other psychometric measures, to evaluate the effectiveness of offending behaviour programmes (Gobbett & Sellen; 2014; Palmer & Humphries, 2017).

Table 3

*Normative Data on differing cultural population from the PICTS*

	Sample					
	English (Prison Male)	Egypt (Prison Male)	Irish (Probation Male)	Netherlands (Prison Male)	American (Prison Male Offenders)	American (Prison Female Offenders)
Cfr	<i>M</i> :16.53 <i>SD</i> :4.24	-	<i>M</i> :14.53 <i>SD</i> :4.93	-	<i>M</i> :10.92 <i>SD</i> :3.36	<i>M</i> :15.11 <i>SD</i> :4.07
Dfr	<i>M</i> :18.69 <i>SD</i> :4.34	-	<i>M</i> :15.92 <i>SD</i> :4.07	-	<i>M</i> :21.44 <i>SD</i> :3.99	<i>M</i> :13.54 <i>SD</i> :3.05
Moll	<i>M</i> :14.48 <i>SD</i> :4.45	<i>M</i> :17.1 <i>SD</i> :4.9	<i>M</i> :16.46 <i>SD</i> :4.58	<i>M</i> :14.00 <i>SD</i> :3.0	<i>M</i> :12.25 <i>SD</i> :3.80	<i>M</i> :13.74 <i>SD</i> :4.46
CO	<i>M</i> :15.23 <i>SD</i> :5.42	<i>M</i> :16.6 <i>SD</i> :5.1	<i>M</i> :20.24 <i>SD</i> :6.15	<i>M</i> :13.6 <i>SD</i> :4.6	<i>M</i> :12.58 <i>SD</i> :4.43	<i>M</i> :17.48 <i>SD</i> :5.46
En	<i>M</i> :13.32 <i>SD</i> :4.54	<i>M</i> :16.8 <i>SD</i> :4.2	<i>M</i> :16.46 <i>SD</i> :4.70	<i>M</i> :12.8 <i>SD</i> :3.5	<i>M</i> :12.82 <i>SD</i> :3.87	<i>M</i> :14.28 <i>SD</i> :4.04
PO	<i>M</i> :14.02 <i>SD</i> :4.84	<i>M</i> :17.1 <i>SD</i> :4.9	<i>M</i> :15:85 <i>SD</i> : 5.59	<i>M</i> :14.3 <i>SD</i> :3.8	<i>M</i> :11.93 <i>SD</i> :3.74	<i>M</i> :14.15 <i>SD</i> :4.86
Sn	<i>M</i> :17.70 <i>SD</i> :3.44	<i>M</i> :19.6 <i>SD</i> :4.7	<i>M</i> :19.38 <i>SD</i> :4.68	<i>M</i> :17.4 <i>SD</i> : 3.7	<i>M</i> :17.01 <i>SD</i> :4.30	<i>M</i> :18.48 <i>SD</i> :4.06
So	<i>M</i> :15.39 <i>SD</i> :4.37	<i>M</i> :15.0 <i>SD</i> :4.6	<i>M</i> :18.65 <i>SD</i> :4.86	<i>M</i> :14.6 <i>SD</i> :3.7	<i>M</i> :14.61 <i>SD</i> :4.07	<i>M</i> :16.73 <i>SD</i> :4.74
Ci	<i>M</i> :17.35 <i>SD</i> :4.77	<i>M</i> :17.9 <i>SD</i> :4.5	<i>M</i> :20.92 <i>SD</i> : 5.86	<i>M</i> :15.2 <i>SD</i> :4.5	<i>M</i> :15.20 <i>SD</i> :4.61	<i>M</i> :18.00 <i>SD</i> :5.16
Ds	<i>M</i> :16.20 <i>SD</i> :5.50	<i>M</i> :18.4 <i>SD</i> :4.6	<i>M</i> :20.47 <i>SD</i> :5.89	<i>M</i> :15.1 <i>SD</i> :4.9	<i>M</i> :14.58 <i>SD</i> :5.03	<i>M</i> :18.03 <i>SD</i> :5.60

Gobbett and Sellen (2014) sampled Welsh offenders who attended the Thinking Skills Programme (TSP). Here paired-samples *t* tests showed that the pre and post-programme differences achieved statistical significance on six of the thinking styles (Mollification, Cut-Off, Entitlement, Power Orientation, Superoptimism, Cognitive Indolence) and overall total score. For the two remaining thinking styles, whilst statistical significance was not achieved, post programme data revealed a large difference in the expected direction for Discontinuity and a small-medium effect in Sentimentality. Therefore, the authors believed that that there was a positive effect on thinking styles and attitudes for offenders meaning a positive effect had occurred from attending the TSP. In contrast, Palmer and Humphries (2017), found no significant differences on thinking styles between completers of an unnamed cognitive behavioural programme and non-completers. Although, the authors note that, owing to their sample sizes, it is not possible to draw conclusions as to why this was found. Therefore, as outlined, the cultural utility of the PICTS warrants further investigation.

The usefulness of comparing the normative data produced is also limited by the different versions of the PICTS used in studies. Comparisons between data sets have been made by those investigating cultural differences using Version Three and Four. Furthermore, one study did not state the version used (Healy & O'Donnell, 2006). Given that additional items were added and the scoring on the Likert scale changed from Version Three onwards, the utility of the normative data is limited.

#### 4.2.4 Other considerations:

Another area worthy of discussion is the PICTS' level of measurement. Kline (1998) outlines how the most ideal form of measurement should incorporate a ratio scale as it is based on a true zero point. This provides a meaningful difference between

each individual rating on the scale and allows for parametric analysis to be used. Most psychometric measures do not use a ratio scale and Blaikie (2003) highlighted the continued debate as to whether the data achieved from psychometric scales are classified as ordinal or interval. Questions are also raised as to whether a mid-point should be used in scales (Garland, 1991) and whether the categories on a scale influence the responses given (Kieruj & Moors, 2010).

Kline (1986) believed that an ordinal scale allows parametric analysis to be used. As the PICTS has seventeen scales derived from 80 questions, this is classified as an ordinal scale. In later research, Walters, Hagman and Cohn (2011) examined the factor structure and underlying latent trait structure of PICTS using Item Response Theory. Results confirmed that the PICTS is capable of measuring criminal thinking at moderate to high levels of the trait dimension and, as such, has a good level of measurement. However, the Sentimentality scale was considered poor at assessing criminal thinking, which in turn lowers the overall internal reliability of the GCT scale. This led to the authors reflecting on the idea that Sentimentality may actually be assessing an individual's response style. As such, future research is required to determine whether items other than those on the Sentimentality scale should be removed from the GCT to determine the continued viability of the PICTS.

Whilst ordinal scales are advantageous in terms of ease of data collection and the categorisation of responses, this can result in bias. The PICTS has two high response options (agree, strongly agree) in comparison to one lower response option (disagree) as well as a neutral response (uncertain). Therefore, it could be inferred that this increases the likelihood for respondents to endorse higher levels of criminal thinking than is actually the case. Furthermore, the response style effects of satisficing (Krosnick, 1999) and acquiescence (Moors, Kieruj, & Vermunt, 2014) are also issues

which can affect Likert scales. Krosnick (1999) outlined how satisficing occurs when respondents are not able to understand the question or they are not motivated to give an opinion so are more likely to select a neutral response. Acquiescence can occur when the individual finds it harder to disagree than agree with a statement and factors such as a lack of motivation or tiredness can influence the individual to agree irrespective of the content (Schalast, Redies, Collin, Stacey, & Howells, 2008). Applying this to the PICTS, the third scaling item is labelled as 'uncertain' and gives a choice for an individual to remain neutral and, owing to the number of questions, acquiescence may occur. As such it would be important for the assessor to monitor an offender's response during the completion of the PICTS.

In their review of psychometric formatting, Ogden and Lo (2012) noted that respondents consistently base their judgements in accordance with where they believe they should be in their lives or where they have been in the past. The PICTS manual acknowledges that some of the items are clearly historical in nature, whilst other items ask specifically for current thoughts and attitudes. There is, however, ambiguity in a number of items which could be answered in either time frame. Guidance highlights that the assessor should only help the respondent if they ask specifically about the time frame. At this point, they can be informed to answer in the present. Should a respondent remain quiet, the data achieved may not have been answered within the appropriate time frame. However, despite these limitations, given that criminal activity is linked to an individual's belief system, it could be argued that self-report measures such as the PICTS are important in being able to capture these attitudes and cognitions. Moreover, cited research continues to support the use of the PICTS as a measure of criminal thinking.

### 4.3 Conclusion

The purpose of this review was to critically analyse the psychometric properties of the PICTS, in line with the standards outlined by Kline (1986) and Field (2009). The PICTS as a self-report measure benefits from being easy to administer and is considered helpful as a measure to capture and gain insight into how an offender thinks. On this basis, research has continued to utilise this measure when evaluating offender behaviour programmes (Gobbett & Sellen, 2014; Palmer & Humphries, 2017). The PICTS has also been through a number of test revisions which could be viewed by some as advantageous as a means of continuing to strive for a more robust measure as more research evolves. This would also be in line with other assessment measures which have gone through similar revision processes such as those measuring intelligence and memory (Weschler, 2008; 2009). Equally the utility could be questioned given that the PICTS has gone through four revisions in short succession.

Of the research reviewed, there are various studies supporting the PICTS which suggest that this measure has satisfactory internal and re-test reliability, although there is some debate as to the criteria applied by the researchers with data falling below the cut off outlined (Kline 2000; Nunnally, 1979). In turn, this does weaken the measure and supports the idea that further research is warranted. Support has also been found for the validity of PICTS; Walters combined both established theory with the opinions of the offenders, meaning that the measure was more likely to capture the criminal lifestyle. Through Factor Analysis, Walters has also been able to conceptualise a hierarchical framework from the PICTS to explain the concept of criminal thinking which has received support for having good reliability and validity. However, despite these findings, it has to be acknowledged that the majority of research has been undertaken either solely by the author or by him in collaboration with other authors. As

such, questions are raised as to whether an Allegiance effect (Hollon, 2006) may have occurred. Furthermore, despite revised editions of the PICTS, the reliability of the validity scales within the measure has continued to suffer. Therefore, they either need to be revised or for consideration to be given to the inclusion of further validity scales to improve the PICTS utility. This would be imperative given that differences were also found between male and female offender samples.

Whilst research continues to provide emerging data cross culturally on the PICTS, this is still in its infancy. Therefore, further independent research is needed across different cultural samples both with females and males in order to have wider normative data and allow more accurate inferences to be made regarding the PICTS utility in measuring criminal thinking styles. It is also recommended that research be undertaken with different offender samples to explore the factorial structure of criminal thinking styles. For example, a distinction has not been made with the norms when applying this to Moffitt's Life Course Persistent (LCP) and Adolescence Limited (AL) theory. Based on Moffitt's explanation, it would be anticipated that offenders who were classified as LCP would have a number of entrenched criminal thinking styles when considering the PICTS. Furthermore, there is no research at present which has focused on the PICTS utility with gang offenders and, as such, no norms for this population exist. This is surprising given there is research (Alleyne & Wood, 2014; Alleyne, Fernandes, & Pritchard, 2014) which outlines how the cognitive thought process of gang members is more pronounced than in non-gang members for wanting power and status (power orientation criminal thinking style), dehumanising their victims (entitlement criminal thinking style) and blaming others to justify their offending (mollification criminal thinking style) Therefore, this has implications not only in terms of the PICTs utility on this offender cohort but also as a psychometric in

rehabilitative evaluations where individuals may identify as a gang member. Despite these limitations, the PICTS has continued to be used by both professionals and academics for over three decades. Therefore, given the measures continued use within the forensic field, it is concluded that if the PICTS is used, caution should be exercised and that preferably it be used in conjunction with other measures.

**Chapter 5**  
**Thesis Conclusions**

## 5.1 Aims of the thesis

This thesis aimed to contribute and expand the UK knowledge base regarding the psychology of gang membership. Whilst a plethora of research has focused on why individuals identify and engage in a gang lifestyle, less attention has been given to the process of gang disengagement. When considering undertaking any form of gang research, one of the controversial issues amongst researchers and practitioners is deciding on the definition of what constitutes a gang member. This is of paramount importance given labelling can lead to an overestimation or underestimation of the prevalence of gangs (Esbensen et al., 2001). For the purposes of this thesis, focus was given to the concept of “*street gang*” and the definition by Miller (1992) applied. Consideration was then given to developing an understanding of the literature regarding factors which increase the likelihood that an individual will disengage from a gang. It was hoped that this review would help to inform policy makers and practitioners on how to encourage individuals to access rehabilitative measures in order to develop their skills to promote and strengthen an individual’s resolve to desist from this lifestyle.

This thesis also aimed to explore the impact of two offender behaviour programmes using a sample of adult male violent gang and violent non-gang offenders in custody. In addition, exploration of the views of a group of male gang offenders following treatment was undertaken to gain further insight into what may influence an individual’s desire to join a gang, as well as the process of disengagement, to aid those working in the field of gang rehabilitation. Finally, a critique of the psychometric measure the Psychological Criminal Thinking Styles (PICT, Walters, 2005) was undertaken. The intention being to investigate the appropriateness of using this measure for future treatment evaluation research, given cognition is considered synonymous

with violent offending. Furthermore, Alleyne and Wood (2014) and Alleyne, Fernandes and Pritchard (2014) also found cognition to be a significant feature in gang members' offending, with members appearing to hold more anti-authority attitudes than other offenders. Not surprisingly, the association between peer relationships and the impact this has on the development on cognition has also found to be more prominent with gang members (Chu, Daffern, Thomas, & Lim, 2011; Curry & Spergel, 1992). Therefore, understanding the utility of the PICTS would also be helpful to inform the current practices in the field of assessment and rehabilitation measures for gang members.

## 5.2 Main findings

### 5.2.1 Chapter 2: Disengagement from Street Gangs; A Systematic Review of the Literature

Chapter 2 was the first systematic review exploring gang disengagement and resultant factors involved in why individuals disengage from street gangs has been able to be synthesised from the literature. A total of seven studies were included and the two most cited reasons for starting the disengagement process were parenthood and victimisation. Other factors found to be relevant included having a significant other for support, disillusionment after having been betrayed or abandoned by their own gang, and maturation. Interestingly, an important internal factor for disengagement to take place was an individual's own thought processes and desire to leave behind this lifestyle. This is fundamental, given personal strength and choice play a significant part in an individual's response to offending behaviour programmes, as detailed in Chapter 3.

The studies identified supported the emerging literature that gang membership continues to be a unique and complex phenomenon with a variety of factors contributing to a gang member's decision on whether to remain or exit the gang lifestyle. The results were also found to link with the push and pull paradigm cited in the gang engagement literature (Decker & Van Winkle, 1996; Harris, Turner, Garrett, & Atkinson, 2011). Therefore, this chapter concluded that individuals who choose to distance themselves from a gang have done so because it appears to no longer serve their needs, values or priorities which are either prompted by a life changing event or change in circumstances. To strengthen and maintain this process of desistance, an alternative path is considered necessary, such as securing employment. Therefore, gang disengagement is not overly dissimilar to the general criminality desistance process (Maruna, 2001) and infers that there are multiple factors which occur in combination to help assist gang members disengage.

Importantly, the quality of the reviewed studies did vary. Further, only two were based in the UK. Given gang membership is an evolving area; it could be argued that excluding all but the most methodologically robust studies has narrowed what is already a sparse research area. Nevertheless, this review has enabled the wider literature to be drawn together and provides a starting point for practitioners and policy makers to consider strategies to assist gang members. The insight gained from gang members may provide a helpful framework for future interventions to assist with prevention strategies for those identified as at risk for gang engagement as well as those already immersed in this lifestyle. However, in order to avoid the 'Eurogang paradox' (Klein, 2001), making firm conclusions at this stage would be premature and as such it is critical for future research in this area to continue.

### 5.2.2 Chapter 3: Understanding gang membership and the impact of undertaking violence interventions in an adult prison sample

As detailed, the majority of gang research has primarily focused on American samples, with the rehabilitative field being no exception (DiPlacdio et al., 2006; Hodgkinson et al., 2009; Schram & Gaines, 2005). To the author's knowledge, there has been no previous attempt to understand the impact of prison rehabilitative programmes for violent gang offenders within the UK. The study had two elements; first it explored the impact of two generalised violent offender behaviour programmes on both adult violent gang and adult violent non-gang offenders. Second it focused on exploring gang members' views following the completion of these programmes.

Quantitative analyses showed violent gang and violent non-gang participants benefited from accessing either of the two offending behaviour programmes studied as their post intervention psychometrics showed improvement. Specifically, their impulsivity, anger, vengeful thinking and thoughts of aggression decreased and an increase in treatment readiness was observed. Therefore, when considering the aims of the programmes, the findings support the idea that all participants are able to address these specific criminogenic needs. Interestingly, a significant difference was found between gang and non-gang participants and their level of treatment readiness when undertaking the RESOLVE programme. This difference was also observed when comparing pre scores at the beginning of the programme. However, this was not found with those who accessed SCP. Possible explanations for this could be attributed to the small sample size or the differences in the treatment style of the facilitators delivering these interventions. However, there is limited academic literature published using this specific psychometric and this suggests the need for future research to better understand

the interaction of treatment engagement with both violent gang and violent non-gang offenders.

Another area worthy of discussion from the present study was how, at the beginning of the RESOLVE programme, gang participants were found to have higher levels of vengeful thinking than non-gang participants. This strengthens the arguments of Cohen, Nisbett, Bowdle and Schwarz (1996), Decker and Van Winkle (1996), and more recently Vasquez, Lickel and Hennigan (2010), that gang members are hypersensitive and experience more ruminative thoughts than other offenders. Whilst this was not found within the SCP cohort, the descriptive statistics were higher for gang participants prior to their engagement than those obtained by both the non-gang participants and RESOLVE cohort. As such it is proposed that more attention needs to be focused in this area if rehabilitative measures are to be effective with gang members.

Interestingly, there were no differences between offender typology following the completion of RESOLVE and SCP and this suggests the criminogenic needs that the programmes aim to address (impulsivity, anger, treatment readiness, vengeful/ruminative thinking and aggression) are similar for both violent gang and non-gang participants. This supports Esbensen, Peterson, Taylor, and Freng (2009) and Ross and Fonato (2008) who found no specific criminogenic factors unique to gang members. However, consideration has to be given to the idea that these changes cannot solely be attributed to the programmes attended, as other variables may explain the improvements observed. It is also important to be cautious, given the small sample sizes, with further research being recommended to understand the robustness of these findings. For example, whilst both programmes were aimed at providing participants with the skills to reflect on their lives, choices and consequences, the research cited within Chapter 1 and Chapter 2 has shown the influence the group itself can exert on

individuals to identify with a gang, conform to their rules, cultural norms and shared goals and subsequently, their offending can vary. This was not specifically measured in the study or the specific motivations for joining a gang which would be important to consider. Furthermore, it would also be important to attend to the idea of how some of the participants may have identified as LCP or AL offenders which in turn has implications when understanding the criminogenic needs of gang members.

With regards to the qualitative data, three major themes emerged which depicted the process of gang membership: what is a street gang; motivators to join; and motivators to disengage. Participants shared a common view that a '*street gang*' is identifiable through a name, language and clothes and collectively involves some form of criminal activity. These comments emphasise the importance of identity as central to gang membership as cited by Hallsworth and Young, (2004) and Weerman et al. (2009). A sense of hierarchy and geographical territory was also important, although this was not shared by all participants. Interestingly, youth did not feature in participants' views; raising the question of whether this should be included in gang definitions. Furthermore, the subordinate theme of '*unique*' also helped reinforce the importance of continuing to adopt a self-nomination method when recruiting participants for gang research. This strengthens Esbensen et al's., (2001) and Peterson's (2000) views that stipulate definitions can exclude unknown or misunderstood elements of gang life.

Regarding motivators that lead individuals to join a gang, the themes to emerge were consistent with previous literature (Alleyne & Wood, 2014; Barnes, Boutwell, & Fox, 2012; Cohen et al., 1996; Dmitrieva et al., 2014; Donnellan et al., 2005; Streckesky & Pogrebin, 2007). Participants reflected on how joining a gang provided a sense of belonging, helped them to experience a sense of excitement and created an

image which in turn elevated their status, popularity and power. Furthermore, it also afforded a degree of protection from the environment they were in and enabled them to gain material possessions. In turn, the notion of money, fast cars, jewellery and clothes linked back to creating a particular image, raising self-esteem and preserving a male identity. These findings also offer further support to Raby and Jones (2016) who identified these factors from synthesising the literature. These factors were not measured in the quantitative study and as such it is recommended that this is attended to in any future gang rehabilitation evaluations to help understand if these needs are targeted effectively.

When focusing on desistance, gang member's views reinforced the findings detailed in Chapter 2 whereby individuals considered that exposure to repeated negative consequences (such as victimisation and trauma) led to fatigue with this lifestyle. Being exposed to a change in circumstances such as prison or parenthood led participants to the view that they needed to select more pro-social opportunities. Therefore, disengaging from a gang was viewed as a gradual process.

Given that a variety of motives for gang membership and reasons for leaving were shared by participants; this strengthens Wood and Alleyne's (2010) 'Unified Theory of Gang Involvement'. They both outlined how the onset of criminal behaviour is similar for all offender cohorts where there is an interaction between the individual and peer group coupled with psychological, social and environmental factors. However, it is additional motivators, such as those confirmed by the participants in this study, which they believe a gang will provide as well as extrinsic material rewards which then contribute to their engagement. This is not dissimilar to the Multiple Perpetrator Sex Offending (MPSO) by Harkins and Dixon's (2010, 2013) who outlined how there is a relationship between the individual, the sociocultural and situational context and the

group process which will impact on an individual's vulnerability to engage in a sexual violent act. The findings in the present study also suggest how gang disengagement is not overly dissimilar to the general criminality desistance process (Maruna, 2001).

### 5.2.3 Chapter 4: Critique of a psychometric measure: The Psychological Inventory of Criminal Thinking Styles (PICTS; Walters, 2005)

The critique of the PICTS was deemed relevant to this thesis on the basis there is a significant link between cognition and criminal behaviour in both violent gang and violent non-gang offenders (Alleyne, Fernandes, & Pritchard, 2014; Andrews, Bonta, & Wormith, 2006). Similarly, understanding criminal thinking styles is important in classifying offenders for both treatment and management of risk (Mandracchia & Morgan, 2012). Therefore, this raised the question whether this measure should form part of the pre and post evaluation research when understanding treatment gains in gang members.

This review found the PICTS to be in its fourth revision having been through a number of adaptations as a result of earlier versions having poor reliability and validity. The critique showed that the PICTS does have satisfactory internal and re-test reliability. However, findings were weakened by the data falling below the cut offs outlined (Kline 2000; Nunnally, 1979). Support was also given to the validity of the PICTS as studies revealed that the measure did capture the criminal lifestyle. However, the reliability of the validity scales within the measure has continued to be poor. Another significant criticism is how support for the utility of the PICTS is either proposed by the author of the PICTS or research undertaken by him in collaboration with other authors. Therefore, no independent research has been undertaken which raises the question of whether an 'allegiance effect' (Hollon, 2006) has occurred.

Furthermore, no research has been undertaken with gang members and means there are no norms in existence for this population. It is considered that whilst this measure can be used with some offender populations, clinicians and researchers need to apply caution if they believe it relevant to use with gang members.

### 5.3 Thesis strengths and limitations

Overall, this thesis has been beneficial in adding to the emerging literature on understanding why individuals choose to disengage from street gangs. This thesis has also provided insight into what works with gang offenders and, to date, this is the first study of its kind to compare violent gang offenders and violent non-gang offenders in the UK. Further insight into the views of incarcerated gang members within a UK sample has been undertaken, which again is rare given the difficulties in accessing this population for research purposes. Therefore, the findings from this thesis could assist in the development of further support and interventions for this offender group.

As mentioned in Chapter 3, the quantitative research was conducted within two high security prisons, although Prison A was weighted more heavily for participants. The sample size was also deemed small meaning that the findings should be interpreted with some caution and it is not possible to generalise results across other prison settings, the community or to female violent gang offenders. The recruitment of participants in both studies may have also created bias as it could be argued that those who consented were already on the route to desistance. Participants who did not wish to consent, those who chose not to undertake treatment or those who deselected from treatment may have produced different results. It is also important to highlight that given the sample was a long term static population, reconviction rates were not obtained. Therefore, it is not possible to comment on whether the programmes undertaken specifically impact on whether gang members re-offend.

The qualitative study may also have been strengthened using more interpretative analysis when analysing the transcripts (e.g., using Interpretative Phenomenological Analysis; IPA). Nevertheless, findings from the study are promising and a benefit of the study was having access to a higher number of participants than would be used in an IPA study to draw out themes across interviews. The findings also have potential for informing practitioners, programme developers and policy makers about how they can support gang offenders through rehabilitative measures.

#### 5.4 Implications for practice

Chapter 2 outlined how gang membership continues to be a unique and complex phenomenon with individuals citing a number of factors having contributed to their decision to desist from a gang lifestyle. Whilst focus is given to disengagement, the findings gained could play a vital role in contributing to the design of early preventative measures of those identified as being at risk of joining a gang as well as helping to assist individuals already immersed in this lifestyle. Reflecting on the themes of maturation and critical reflection supports the idea that engagement might vary at different developmental points for an individual. Therefore, it would be important to explore these personal motivations to help to identify ways of engaging them in alternative opportunities. It would also be useful to offer training to professionals in the community, such as teachers and/or community leaders, on how to identify and communicate with those vulnerable to joining a gang. In turn this may help individuals to seek out pro-social options and take more responsibility for how they want to live their life. Furthermore, helping professionals to notice signs of disillusionment in street gang members when working with them, either in the community or within prison could assist in nurturing the idea of disengagement. Furthermore, one of the most cited reasons for leaving a gang was a result of victimisation and so this could be a critical

time for professionals discussing with the individual whether this lifestyle is helpful as a means of trying to create ambivalence about being in a gang.

Expanding on these findings, the empirical research found no differences between offender typology following the completion of RESOLVE and SCP. Practically, this suggests that both have similar treatment needs and, as such, programmes can be designed to target both offender populations together rather than separately. Reflecting on participants' responses in the qualitative study, it would be important for policy makers and programme developers to consider whether changes need to be made to the current suite of prison and community rehabilitation initiatives or whether a gang-specific intervention needs to be developed. A starting point in this process would be to review the content of the programmes alongside models of gang offending, participants valued the use of peer mentors in assisting the rehabilitative process for gang members. Specifically, it was highlighted how younger individuals at risk of joining a gang may listen to mentors and how the inclusion of reformed gang members could help professionals address some of the challenges when working with this population. It is also evident from comments that additional schemes are needed to remove barriers that both the communities and the gang members themselves see as preventing change. Subsequently, policy makers would benefit from speaking to ex-offenders to assist in this process.

### 5.5 Future research

The findings of this thesis have identified areas for future research in the field of street gangs. Both Chapter 2 and 3 detail how the way gangs are explained as different is not in terms of their criminogenic needs, but in terms of their motives which need to be addressed during treatment. Therefore, further work is required to better identify

specific treatment needs for gang members as it is not entirely clear whether other factors (e.g., image and self-esteem) linked to engagement are adequately assessed in the first instance. Incorporating a wider range of psychometrics consistent with the gang engagement literature should also be considered.

Future longitudinal studies should also be encouraged. For example, a series of follow up interviews to explore which factors associated with desistance are stable over time and whether the effects of the treatment programmes are also maintained could be beneficial. Prospective longitudinal studies would also offer an increased ability to validate the factors linked to disengagement and cohort studies would identify how these factors interact and relate to others over time. A longitudinal study of former gang members and the process of community re-integration may be helpful in understanding further the continued needs and strategies that may need to be in place to continue to support the desistance process.

Lastly, as mentioned throughout this thesis, research on gang membership, particularly within the UK is relatively sparse. Therefore, future research, whether adopting a quantitative, qualitative or mixed methodology, will all assist in furthering knowledge in this area. This can then further inform practitioners, programme developers and policy makers to appropriately support gang offenders.

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## Appendices

### Appendix A: Details of database search strategies

PsycINFO (OVID) 1806 to January Week 3 2017

1	Gang	2470 (limit to English 2377)
2	Gangs	2039 (limit to English 1960)
3	Gangster*	110 (limit to English 105)
4	Street Gang	115 (limit to English 115)
5	Get Out	455 (limit to English 425)
6	Leav*	31075 (limit to English 29508)
7	Depart*	50697 (limit to English 47251)
8	Exit*	6112 (limit to English 5851)
9	Defect*	16056 (limit to English 14690)
10	Desist*	1051 (limit to English 1020)
11	Disillusion*	1012 (limit to English 932)
12	Withdraw*	35508 (limit to English 33486)
13	Terminat*	19075 (limit to English 18174)
14	Discontinue*	6143 (limit to English 5919)
15	Deter*	382917 (limit to English 360417)
16	Disengag*	6240 (limit to English 5930)
17	Push	3953 (Limit to English 3836)
18	1 OR 2 OR 3 OR 4	3149 (Limit to English 3021)
19	5 OR 6 OR 7 OR 8 OR 9 OR 10 OR 11 OR 12 OR 13 OR 14 OR 15 OR 16 OR 17	533050 (limit to English 501497)
20	18 AND 19	538 (limit to English 523)
	Remaining after reading initial abstracts	40

Science Direct:

**TITLE-ABSTR-KEY= (gang OR gangs OR gangster\* OR street gang) AND ALL FIELDS = (Get out OR Leav\* or Depart\* or Exit\* or Defect\* or Desist\* or Disillusion\* or Withdraw\* or Terminat\* or Discontinue or Deter\* or Disengag\* or Push)**

640 results.

Remaining after reading initial abstracts = 10

Web of Science

**TOPIC SEARCH (TS)= (gang OR gangs OR gangster\* OR street gang) AND TOPIC SEARCH (TS) =("get out" OR leav\* OR depart\* OR exit\* OR defect\* OR desist\* OR disillusion\* OR withdraw\* OR terminat\* OR discontinue\* OR deter\* OR disengag\* OR push)**

Results 549 (English only parameter applied); remaining after reading initial abstracts 44

Cochrane Library

**SEARCH ALL TEXT (gang OR gangs OR gangster\* OR street gang) AND SEARCH ALL TEXT ("get out" OR leav\* OR depart\* OR exit\* OR defect\* OR desist\* OR disillusion\* OR withdraw\* OR terminat\* OR discontinue\* OR deter\* OR disengag\* OR push)**

39 results (including two duplicates)

Remaining after reading initial abstracts: 2

Medline

1	<b>Gang</b>	1171 (English only 825)
2	<b>Gangs</b>	297 (259 English only)
3	<b>Gangster*</b>	27 (25 English only)
4	<b>Street Gang</b>	22 (22 English only)
5	<b>“Get Out”</b>	589 (549 English only)
6	<b>Leav*</b>	188627 (174941 English only)
7	<b>Depart*</b>	318092 (258196 English only)
8	<b>Exit*</b>	33281 ( 31260 English only )
9	<b>Defect*</b>	546487 (482715 English only)
10	<b>Desist*</b>	435 (404 English only)
11	<b>Disillusion*</b>	577 (500 English only)
12	<b>Withdraw*</b>	126881 (115538 English only)
13	<b>Terminat*</b>	119341 (111378 English only)
14	<b>Discontinue*</b>	45127 (40533 English only)

15	Deter*	3482572 (3199840 English only)
16	Disengag*	4480 (4341 English only)
17	Push	13914 (13304 English only)
18	1 OR 2 OR 3 OR 4	1370 (991 English only)
19	5 OR 6 OR 7 OR 8 OR 9 OR 10 OR 11 OR 12 OR 13 OR 14 OR 15 OR 16 OR 17	4640686 (4201316 English only)
20	18 AND 19	228 (203 English only)
	Remaining after reading initial abstracts	7

Proquest Sociological Abstracts:

ANYWHERE = (Gang OR gangs OR gangster\* OR street gang) AND ANYWHERE = ("get out" OR leav\* OR depart\* OR exit\* OR defect\* OR desist\* OR disillusion\* OR withdraw\* OR terminat\* OR discontinue\* OR deter\* OR disengag\* OR push)

406 results (Within this 1 duplicate)

Remaining after reading initial abstracts: 46

Proquest Social Services Abstracts, ASSIA (Applied Social Sciences Index and Abstracts

ANYWHERE = (Gang OR gangs OR gangster\* OR street gang) AND ANYWHERE = ("get out" OR leav\* OR depart\* OR exit\* OR defect\* OR desist\* OR disillusion\* OR withdraw\* OR terminat\* OR discontinue\* OR deter\* OR disengag\* OR push)

107 results

Remaining after reading initial abstracts: 11

Pilots (PTSD database)

ANYWHERE = (Gang OR gangs OR gangster\* OR street gang) AND ANYWHERE = ("get out" OR leav\* OR depart\* OR exit\* OR defect\* OR desist\* OR disillusion\* OR withdraw\* OR terminat\* OR discontinue\* OR deter\* OR disengag\* OR push)

10 results

Remaining after reading initial abstracts: 1

**Overall databases: leaves a total of 162; duplicates: 75= 87**

Grey Literature

*Open Grey*

Search: **Gangs.**

**Results 28: Remaining after reading articles: 0.**

Ministry of Justice

[https://www.gov.uk/government/publications?keywords=&publication\\_filter\\_option=research-and-analysis&topics%5B%5D=all&departments%5B%5D=ministry-of-justice&world\\_locations%5B%5D=all](https://www.gov.uk/government/publications?keywords=&publication_filter_option=research-and-analysis&topics%5B%5D=all&departments%5B%5D=ministry-of-justice&world_locations%5B%5D=all)

Gang, Disengagement and Desistance

**10 results: Remaining after reading articles: 1**

Appendix B: Template for contacting researchers and list of authors contacted

Dear (*Researcher*),

My name is Sarah Tonks and I am currently conducting a systematic literature review for my doctoral project at the University of Birmingham UK, which is focused on exploring the factors that are associated with why gang members choose to disengage

On review of the literature, I am interested in an article you published to include in my review:

Karl Schumann, David Huizinga, Beate Ehret and Amanda Elliot (2009) Cross-national Findings about the Effect of job Training, Gangs, and juvenile justice Reactions on Delinquent Behavior and Desistance. Special Issue of the *Monatsschrift für Kriminologie und Strafrechtsreform* on Criminal Life Course Research

To date, I have been unable to access the article online or through my library services and therefore I am emailing to enquire as to whether you would be able to provide me with a copy of the article?

Thank you for taking the time to consider my request

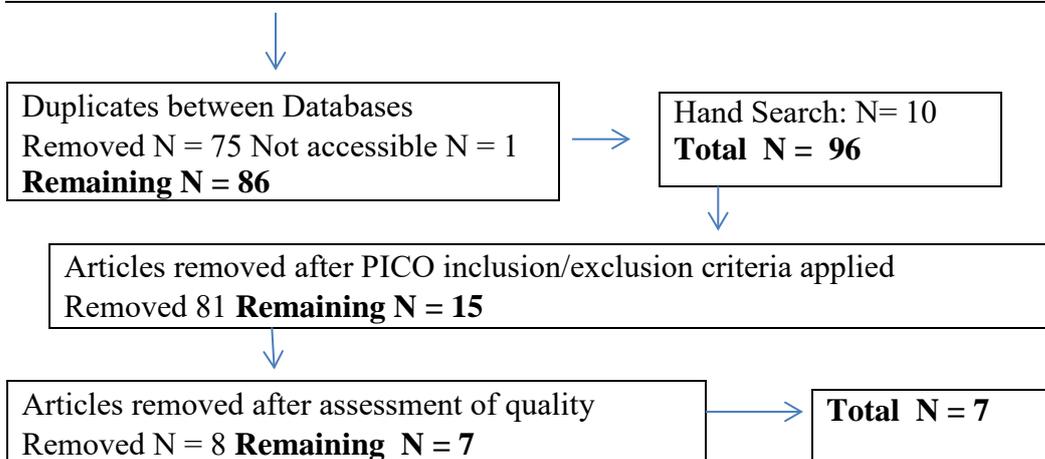
Yours Sincerely

Sarah Tonks

### Appendix C: Study selection process

Search of Online Databases	Duplications in each database	
Cochrane Library	N = 39	2 removed N= 37
Medline	N= 203	2 removed N = 201
Pilots (PTSD database)	N= 10	
ProQuest Applied Social Science Index & Abstracts	N= 107	
ProQuest Sociological Abstracts	N= 406	1 removed N = 405
OVID Psych INFO	N= 523	
Science Direct	N= 640	
Web of Science	N=549	
Grey Literature:		
• Open Grey	N = 28	
• Government Research Database	N=10	
<b>Total</b>	<b>N= 2515</b>	<b>N =2510</b>

Articles removed due to not being relevant (after reading abstracts)		
Cochrane Library	Removed N = 35	Remained N = 2
Medline	Removed N = 194	Remained N = 7
Pilots (PTSD database)	Removed N= 9	Remained N = 1
ProQuest Applied Social Science Index & Abstracts	Removed N= 96	Remained N = 11
ProQuest Sociological Abstracts	Removed N= 359	Remained N= 46
OVID Psych INFO	Removed N= 483	Remained N= 40
Science Direct	Removed: N = 630	Remained N = 10
Web of Science	Removed N = 505	Remained N = 44
Grey Literature:		
• Open Grey	Removed: N= 28	Remained N= 0
• Government Research Database	Removed: N = 9	Remained N = 1
<b>Total</b>	<b>Removed N = 2348</b>	<b>Remained N = 162</b>



Appendix D: Quality assessment tools used in the literature review

Quality Assessment for Qualitative, utilising CASP model

Screening Questions	Yes	No	Can't Tell
Did the study address a clearly focused issue?			
Is a qualitative method appropriate to answer the question?			
Is it worth continuing?			

	Detailed Questions	Yes (2)	Partial (1)	No (0)	Can't Tell (?)
1	Was the research design appropriate for answering the research question?				
2	<p>Was the recruitment strategy appropriate to the aims of the research?</p> <ul style="list-style-type: none"> <li>• Have they explained how participants were selected? and is the most appropriate way to get access to the type of knowledge sought for the study?</li> <li>• Any discussions around recruitment such as why some individuals chose not to take part?</li> </ul>				
3	<p>Was the data collected in a way that addressed the research issue?</p> <ul style="list-style-type: none"> <li>• Is the setting for data collection justified?</li> <li>• How was the data collected and has the researcher justified this method?</li> <li>• Is the method explicit?</li> <li>• Is the form of data clear?</li> <li>• Saturation of data discussed?</li> </ul>				
4	<p>Has the relationship between researcher and participant been adequately considered?</p> <ul style="list-style-type: none"> <li>• Has the researcher considered their role, potential biases and influence during the research question or data collection?</li> </ul>				
5	<p>Have ethical issues been taken into consideration?</p> <ul style="list-style-type: none"> <li>• How was the research explained to the participants?</li> <li>• Has issues raised in the study been</li> </ul>				

	discussed such as consent and confidentiality? <ul style="list-style-type: none"> <li>• Has ethical approval been sought?</li> </ul>				
6	Was the data analysis sufficiently rigorous? <ul style="list-style-type: none"> <li>• An in depth description of the analysis process?</li> <li>• If sufficient data is presented?</li> <li>• Did the author examine their own role, potential bias and influence during the analysis and selection of data for presentation?</li> </ul>				
7	Conclusion: Is there a clear statement of findings in relation to the research question?				

Quality Assessment for Cross Sectional, utilising CASP model

Screening Questions	Yes	No	Can't Tell
Did the study address a clearly focused issue?			
Is the study addressing disengagement in gang members?			
Is it worth continuing?			

	Detailed Questions	Yes (2)	Partial (1)	No (0)	Can't Tell (?)
1	Is a cross sectional study an appropriate way of answering the question under the circumstances?				
2	Was the sample representative of the defined population?				
3	Was a sufficient sample size used? <ul style="list-style-type: none"> <li>• Score yes if there were above 100 participants?</li> <li>• Score partially if there were above 50 participants?</li> <li>• Score no if there were below 50 participants?</li> </ul>				
4	Was there sufficient information about the demographic background factors of the sample?				
5	Were any potential confounding variables controlled for?				
6	Has gang membership been clearly defined and measured?				
7	Were the measurements for outcome objective? <ul style="list-style-type: none"> <li>• Were the assessment instrument(s)</li> </ul>				

	for outcome (psychometrics/questionnaire) standardised?				
8	Was the outcome measures validated?				
9	Was the outcome assessed in the same way across groups?				
10	Were the dropout rates and reasons for drop out similar across groups?				
11	Was the statistical analysis used correct?				
12	Are results unbiased?				
13	Are the results significant?				
14	Is the effect size reasonable?				
15	Are methods and design reliable?				
16	Were the outcomes clearly described with relation to the research question?				
17	Have limitations been discussed?				

### Quality Assessment of Mixed Methods

Screening Questions	Yes	No	Can't Tell
Did the study address a clearly focused issue?			
Is the mixed method appropriate to address the research question?			
Is it worth continuing?			

	Detailed Questions	Yes (2)	Partial (1)	No (0)	Can't Tell (?)
1	Is the mixed methods research design relevant to address the qualitative and quantitative research questions or the qualitative and quantitative aspects of the mixed methods question?				
	Qualitative				
2	Was the recruitment strategy appropriate to the aims of the research? <ul style="list-style-type: none"> <li>• Have they explained how participants were selected and is this the most appropriate way to get access to the type of knowledge sought for the study?</li> <li>• Any discussions around recruitment such as why some individuals chose not to take part?</li> </ul>				
3	Was the data collected in a way that addressed the research issue? <ul style="list-style-type: none"> <li>• Is the setting for data collection justified?</li> </ul>				

	<ul style="list-style-type: none"> <li>• How was the data collected and has the researcher justified this method?</li> <li>• Is the method explicit?</li> <li>• Is the form of data clear?</li> <li>• Saturation of data discussed?</li> </ul>				
4	<p>Has the relationship between researcher and participant been adequately considered?</p> <ul style="list-style-type: none"> <li>• Has the researcher considered their role, potential biases and influence during the research question or data collection?</li> </ul>				
5	<p>Was the data analysis sufficiently rigorous?</p> <ul style="list-style-type: none"> <li>• An in depth description of the analysis process?</li> <li>• If sufficient data is presented?</li> <li>• Did the author examine their own role, potential bias and influence during the analysis and selection of data for presentation?</li> </ul>				
	Quantitative				
6	Is the sampling strategy relevant to address the mixed method question?				
7	Is the sample representative of the population understudy?				
8	Were the assessment instrument(s) for outcome (psychometrics/questionnaire) standardised?				
9	Was the outcome measures validated?				
10	Was the outcome assessed in the same way across groups?				
11	Are the results significant?				
12	Is the effect size reasonable?				
13	Is the integration of qualitative and quantitative data relevant to address the research question?				
14	Is there a clear statement of findings in relation to the research question?				

Appendix E: Quality assessment results from the literature review

Quality Assessment Results for Qualitative Studies								
Score	Reference	Question						
		1	2	3	4	5	6	7
7/14 50%	Bolden (2013)	2	1	2	0	0	1	1
13/14 92.86%	Bubolz (2014)	2	2	1*not clear how interview data was recorded	2	2	2	2
3/14 21.43%	Daniels and Adams (2010)	0	1	1	0	1	0	0
4/14 28.57%	Decker and Lauritsen (2002)	0	2	1	1	0	0	0
9/14 64.28%	Gormally (2015)	2	2	2	0	0	1	2
12/14 85.71%	Harris, Turner, Garrett and Atkinson 2011	2	2	2	2	0	2	2
6/14 42.8%	Moloney, MacKenzie, Hunt and Joe-Laidler (2009)	2	2	1*not clear how interview data was recorded	0	0	?	1
11/14 78.57%	Munoz (2014)	2	2	2	0	1* did not discuss how research explained to participants	2	2
13/14 92.85%	Rice (2015)	2	2	1 *bias was only focused on during interviews	2	2	2	2

Quality Assessment Results for Cross Sectional Studies																		
Score	Reference	Question																
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
17/34 50%	Carson, Peterson and Esbensen (2013)	2	2	2	2	0	2	0	0	2	2	?	?	?	?	1	2	0
22/34 64.7%	O'Neal Decker, Moule Jr and Pyrooz (2016)	2	2	2	2	0	1	0	1	2	?	2	2	0	?	2	2	2
19/34 55.8%	Pyrooz and Decker (2011)	2	1	1	2	0	1	1	0	2	1	2	2	1	0	1	2	0

Quality Assessment Results for Mixed Method Studies																	
Score	Reference	Question															
		1	2	3	4	5	6	7	8	9	10	11	12	13	14		
16/28 57.14%	Decormiers (2013)	2	1	0	0	1	2	2	1	1	2	0	?	2	2		
11/28 39.28%	Decker and Pyrooz (2011)	2	2	1	0	0	2	2	?	?	?	0	0	1	1		
20/28 71.42%	Decker, Pyrooz and Moule Jr. (2014)	2	2	1	0	1	2	2	1	0	2	2	1	2	2		

Appendix F: Data extraction proforma for literature review

Data to be extracted	
Title of Study	
Author/s	
Year of Publication	
Country of Study	
Participants	<p>Male or Mixed Sample      Y      N      ?</p> <p>Was Street and/or Ex-Gang Member defined? Y   N   ?</p> <p>How were gang members recruited?</p>
Study Objective	
Location/Setting	
Methodology	<p>How was Street and/or Ex-Gang Member determined?</p> <p>If self-report, how was the self-reported behaviour maximised?</p> <p>Characteristics of participants (demographic background e.g., age, ethnicity)?</p> <p>Any Instrument used?</p> <p>Sample Size?</p> <p>Study design?</p> <p>What variables were considered (e.g., what variables were matched)?</p>
Results	<p>Is there a clear statement of findings?</p> <p>Statistical Analysis</p> <p>Statistics used?</p> <p>Attrition rates?</p>

	<p>Confounding variables assessed?</p> <p>Number or follow up from each condition? (if relevant)</p> <p>Dropout rates &amp; participant retention?</p> <p>Qualitative Analysis</p> <p>Was the data analysis stated?</p> <p>Was the analysis rigorous?</p> <p>Overall study quality?</p>
Authors conclusions	What were the study conclusions, with relation to disengagement of gang membership?
Strengths and Weaknesses	

## Appendix G: Participant information sheets

### Participant Information Sheet – Psychometrics Study

You have been approached to consider taking part in a research study that is being undertaken by the researcher (Sarah Tonks) as part of her doctoral studies at the University of Birmingham. She is also a Chartered Forensic and Registered Psychologist who works within the Psychological Services at HMP [REDACTED].

Before you decide if you would like to take part, the researcher would like you to understand why the research is being done and what this will involve.

Please take the time to read the information carefully and please ask the researcher if there is anything that is not clear, or you would like more information on. If you would find it helpful to have this information read to you by the researcher, please request this. How to contact the researcher is provided at the end of this sheet.

#### **Research Study Title: Evaluating the impact of the RESOLVE and Self Change Programme on violent non-gang members and violent gang offenders**

#### **What is the purpose of the Research study?**

The aim of this study is to evaluate the impact of the rehabilitation programmes RESOLVE and Self Change Programme (SCP) for participants who have or identify as a gang member and for participants who are non-gang members. For example, do the programmes help participants to manage their anger, frustration, jealousy and increase their chances of managing situations without using violence and/or aggression?

For information a gang member is considered for this research as someone who associated with peers in the community, had common interests and acted together or alone to achieve a goal such as anti-social behaviour or control of an area.

### **Why have I been asked to take part?**

You have been asked to take part in this research study as you have been found suitable and allocated a place recently on either on the upcoming RESOLVE or Self Change Programme (SCP).

### **Do I have to take part?**

Participation is voluntary and there will be no negative consequences whether you decide to take part or not. If you choose not to or you change your mind later on in the research study, you can still continue to complete the programme you have been found suitable to attend.

If you decide to take part and change your mind later on, you will be able to withdraw from the research, one month after the completion of the questionnaires. You do not have to provide a reason for this. Any data will be destroyed immediately after you have withdrawn.

To withdraw please place an application via the general application system or letter to the researcher.

### **What are the possible benefits from taking part?**

There will be no direct benefits from taking part in this research study. However, your participation will provide valuable information about whether the offending behaviour programmes impact on offenders within the high security estate.

### **What are the possible disadvantages and risks of taking part?**

It is not anticipated that there will be any risks for you taking part in the research. However, should you experience any anxiety or distress from completing the

questionnaires, you will have the option to discuss this with the researcher, the SCP/RESOLVE facilitation teams, another member of staff or you can contact the Prisoner Listener Scheme.

There will also be no effect on any other aspect of your prison life (such as privileges), whether you decide to take part or not.

### **What will I do if I take part?**

If you are interested in taking part in this research study, you will be given a consent form to read and sign. This consent form will also ask you to answer three questions whether you consider yourself to have belonged to a gang and then fill out the questionnaires that are voluntary and normally completed as part of the offending behaviour programmes before you start and then the same questionnaires at the end of the programme. These questionnaires will ask you about your attitudes and beliefs, the way you think about yourself and others and feelings of anger. This should take approximately a total of one hour to complete all questionnaires. Should you consent, the researcher will also gather additional information from your file such as age, ethnicity. This is in order to help understand the sample of participants further.

You have the right not to answer a question if you feel uncomfortable.

The questionnaires will be given to you by trained facilitators of the programme you are attending (either RESOLVE or SCP) and the results will be sent directly to the researcher.

No information will be passed on to the professionals who are involved in your sentence planning.

### **What if there is a problem?**

It is not anticipated that there will be any problems from taking part in this research. However, you have the option to contact the researcher (Sarah Tonks) with any problems or queries associated with this research.

### **Will all the information be confidential?**

When you complete the questionnaires, you will not be asked to write your names and instead you will be asked to make up a unique identifier code (i.e., four numbers) and write this code name on the questionnaires. You will need to use the same code when completing the questionnaires after the programme so that the pre and post questionnaires can be matched together. Please remember to keep a record of this.

The questionnaires will be kept in a locked filing cabinet when not in use within the Psychological Services Department at HMP [REDACTED]. The researcher will be the only person to have access to it. Your name and any personal details by which you could be identified will not be recorded anywhere in the write-up of the research study.

The data that is collected will be maintained until after the researcher has graduated from University.

### **What will happen to the results after I have participated?**

The final report on this research study will be given to the Head of Psychology, the Governor of HMP [REDACTED] as well as the Governors of any other prison within the High Security Estate that have also participated in the research.

Researcher supervisors at the University of Birmingham and the developers of the RESOLVE and the Self Change Programme; National Offender Manager Service (NOMS) will also have access to this research.

The findings may also be published in peer reviewed academic journal (magazine). However, there will be no information would could identify you in the final research study report.

If you require further details of the research, please contact the researcher; Sarah Tonks via the general application system.

**Contact name and address:**

Sarah Tonks (Chartered Forensic and Registered Psychologist)

Psychological Services

HMP [REDACTED]

[REDACTED]

[REDACTED]

Participant Information Sheet – Psychometrics project (for those who have completed RESOLVE or Self Change Programme.

You have been approached to consider taking part in a research study that is being undertaken by the researcher (Sarah Tonks) as part of her doctoral studies at the University of Birmingham. She is also a Chartered Forensic and Registered Psychologist who works within the Psychological Services at HMP [REDACTED]

Before you decide if you would like to take part, the researcher would like you to understand why the research is being done and what this will involve.

Please take the time to read the information carefully and please ask the researcher if there is anything that is not clear, or you would like more information on. If you would find it helpful to have this information read to you by the researcher, please request this. How to contact the researcher is provided at the end of this sheet.

**Research Study Title: Evaluating the impact of the RESOLVE and Self Change Programme on violent non-gang members and violent gang offenders**

**What is the purpose of the Research study?**

The aim of this study is to evaluate the impact of the rehabilitation programmes RESOLVE and Self Change Programme (SCP) for participants who have or identify as a gang member and for participants who are non-gang members. For example, do the programmes help participants to manage their anger, frustration, jealousy and increase their chances of managing situations without using violence and/or aggression?

For information a gang member is considered for this research as someone who associated with peers in the community, had common interests and acted together or alone to achieve a goal such as anti-social behaviour or control of an area.

### **Why have I been asked to take part?**

You have been asked to take part in this research study as you have previously completed the RESOLVE or Self Change Programme (SCP).

Should you consent, the researcher will also gather additional information from your file such as age, ethnicity. This is in order to help understand the sample of participants further.

### **Do I have to take part?**

Participation is voluntary and there will be no negative consequences whether you decide to take part or not. If you choose not to or you change your mind later on in the research study, this decision will not impact on your sentence or progression.

If you decide to take part and change your mind later on, you will be able to withdraw from the research, one month after you gave consent. You do not have to provide a reason for this. Any data will immediately be withdrawn from the research.

To withdraw please place an application via the general application system or letter to the researcher.

### **What are the possible benefits from taking part?**

There will be no direct benefits from taking part in this research study. However, your participation will provide valuable information about whether the offending behaviour programmes impact on offenders within the high security estate.

### **What are the possible disadvantages and risks of taking part?**

It is not anticipated that there will be any risks for you taking part in the research. However, should you experience any anxiety or distress from completing the

questionnaires, you will have the option to discuss this with the researcher, the SCP/RESOLVE facilitation teams, another member of staff or you can contact the Prisoner Listener Scheme.

There will also be no effect on any other aspect of your prison life (such as privileges), whether you decide to take part or not.

### **What will I do if I take part?**

If you are interested in taking part in this research study, you will be given a consent form to read and sign. This consent form will also ask you to answer three questions whether you consider yourself to have belonged to a gang. The questionnaires you completed pre and post RESOLVE or SCP will then be accessed.

No information will be passed on to the professionals who are involved in your sentence planning.

### **What if there is a problem?**

It is not anticipated that there will be any problems from taking part in this research. However, you have the option to contact the researcher (Sarah Tonks) with any problems or queries associated with this research.

### **Will all the information be confidential?**

The questionnaires do not have your name on and will be accessed by the unique programme number code that was given to you prior to entering the programme and was recorded on the questionnaire.

The questionnaires are kept in a locked filing cabinet when not in use within the Psychological Services Department at HMP [REDACTED]. The researcher will be the

only person to have access to it. Your name and any personal details by which you could be identified will not be recorded anywhere in the write-up of the research study.

The data that is collected will be maintained until after the researcher has graduated from University.

**What will happen to the results after I have participated?**

The final report on this research study will be given to the Head of Psychology, the Governor of HMP [REDACTED] as well as the Governors of any other prison within the High Security Estate that have also participated in the research.

Researcher supervisors at the University of Birmingham and the developers of the RESOLVE and the Self Change Programme; National Offender Manager Service (NOMS) will also have access to this research.

The findings may also be published in peer reviewed academic journal (magazine). However, there will be no information would could identify you in the final research study report.

If you require further details of the research, please contact the researcher; Sarah Tonks via the general application system.

**Contact name and address:**

Sarah Tonks (Chartered Forensic and Registered Psychologist)

Psychological Services

HMP [REDACTED]

[REDACTED]

[REDACTED]

## Participant Information Sheet – Interviews

You have been approached to consider taking part in a research study that is being undertaken by the researcher (Sarah Tonks) as part of her doctoral studies at the University of Birmingham. She is also a Chartered Forensic and Registered Psychologist who works within the Psychological Services Department at HMP [REDACTED].

Before you decide if you would like to take part, the researcher would like you to understand why the research study is being done and what this will involve from you.

Please take the time to read the information carefully and please ask the researcher if there is anything that is not clear, or you would like more information on. If you would find it helpful to have this information read to you by the researcher, please request this. How to contact the researcher is provided at the end of this sheet.

### **Research Study Title: Gang Membership and violence interventions**

#### **What is the purpose of the Research study?**

The aim of this research study is to find out about gang members' experiences in both the community and in prison and to share their views of the violence offending behaviour programmes they have completed/ not completed as part of their sentence plan.

#### **Why have I been asked to take part?**

You have been asked to take part as you have completed or not completed either the RESOLVE or Self Change Programme (SCP) within the last twelve months at

HMP [REDACTED] and because you have been identified as having associations with a gang prior to your current prison sentence.

### **Do I have to take part?**

Participation is voluntary and there will be no negative consequences whether you decide to take part or not. This includes any aspect of your prison life (such as privileges).

If you decide to take part and change your mind later on, you will be able to withdraw from the research, one month after the interview. You do not have to provide a reason for this. Any data will be destroyed immediately after you have withdrawn.

To withdraw please place a general application to the researcher.

### **What are the possible benefits from taking part?**

There will be no direct benefits from taking part in this research study. However, your participation will provide valuable information about your experiences and what you think helps gang members and whether the violent offending behaviour programmes are useful.

### **What are the possible disadvantages and risks of taking part?**

It is not anticipated that from the questions being asked that there will be any problems or risks to you. However, if you do find the questions or any part of the interview experience upsetting, please tell the researcher. All of your responses will be kept confidential.

Support will also be available from the RESOLVE/SCP treatment teams or your Offender Supervisor. You can also contact the Prisoner Listener Scheme.

### **What will I do if I take part?**

If you are interested in taking part in this research study, please place an application to the researcher to Sarah Tonks (Psychological Services HMP [REDACTED]). On being selected to take part you will be given a consent form to read and sign. After this, you will receive a letter informing you of a date and time for when the interview has been arranged. The interview will take place within a private room within the prison and will last approximately one hour.

The questions you will be asked relate to being in a gang and your experiences. You have the right not to answer a question if you feel uncomfortable. No question will be asked that does not relate to the research.

No information will be passed on to the professionals who are involved in your sentence planning.

As there will be several participants being asked their opinion it is important that you do not discuss the exact questions you have been asked with other prisoners. This is because it may influence their responses.

The interview will be tape recorded. This is because during natural conversation, individuals can speak fast and quickly change subject and so a lot of information will be gathered. To help the researcher to capture the information as you say it, she will use the tape recorder as a reference point to the discussions had. The interview will then be written up into a transcript and analysed.

**What if there is a problem?**

It is not anticipated that there will be any problems from taking part in this research. However, you have the option to contact the researcher with any problems or questions associated with this research.

**Will all the information be confidential?**

All information that is collected from you will be stored in a confidential manner. The data from the interview will be kept in a locked cabinet within the Psychological Services Department at HMP [REDACTED]. The researcher is the only person who will have access to this cabinet.

The data will be listened to in a private room using headphones in order to avoid any secondary noise being passed to other people. The recorded data will be deleted once the write up of the interview has been completed.

The write up of the interview transcript will be reviewed by the researcher and her research supervisors. However, only the researcher will have access to your personal details such as your name.

The interview transcripts will be maintained until the researcher has graduated from her University Course.

The interview transcript and the overall research report will be anonymised. Nothing you say will be able to be traced back to you by anyone in the prison. However, should you choose to read the analysis within the research report you may find statements that you have provided. This will only be identifiable to you and the researcher.

The only time something you say will not be treated as confidential would be if you were to say something that indicated that you or other people are at risk of harm or something that threatens the security of the prison.

**What will happen to the results after I have participated?**

Extracts from your interview will be included in part of a Doctor of Forensic Psychology research report and will also be given to the Head of Psychology, the Governor of HMP [REDACTED]

Researcher supervisors at the University of Birmingham and the National Offender Manager Service (NOMS) will also have access to this research.

Extracts may also be published in peer reviewed academic journal (magazine). However, your name and any other information which would identify you as a serving prisoner will not be used.

**Contact name and address:**

Sarah Tonks (Chartered Forensic and Registered Psychologist)

Psychological Services

[REDACTED]

[REDACTED]

[REDACTED]

Appendix H: Participant consent forms

Participant Consent Sheet – Psychometrics study

**Research Study Title: Evaluating the impact of the RESOLVE and Self Change Programme on violent offenders and violent gang offenders**

The definition of a gang offender for this research is - *someone who associated with peers in the community, had common interests and acted together or alone to achieve a goal such as anti-social behaviour or control of an area.* Therefore, please tick yes or no to the following questions:

I have friends that are members of a gang: Yes  No

I considered myself as belonging to a gang before I came to prison Yes  No

I have been involved in illegal activities as part of this gang? Yes  No

Please print and sign your name below if you agree with the following statements:

- ✓ I have read the information sheet.
- ✓ I understand that volunteering to participate in the research study will involve being asked if I have belonged to a gang or not and then complete a set of questionnaires prior to the first session of the programme I attend (either RESOLVE or the Self Change Programme). I understand I will then complete the same set of questionnaires following completion of the programme.
- ✓ I have been given the opportunity to ask further questions about my participation in this research study and I am aware that I can ask questions at any time.
- ✓ I understand that there is support available to me if I feel I need it.

- ✓ I understand that I can withdraw from the research study up to one month after the post questionnaires have been completed and I do not have to explain my reasons.
- ✓ I understand that if I do withdraw from the research study, there will be no negative consequences for me and it will not affect my place on the programme, sentence plan or impact on any future involvement I may have with Psychological Services.
- ✓ I understand that the questionnaire responses will remain anonymous as a unique identifier code will be used to match up my pre and post questionnaires rather than my name or any identifying information.
- ✓ I understand that my personal details will not be recorded in the research study report or in any potential future publications.
- ✓ Having read and understood the conditions stated in the information sheet, I wish to take part in this study.

Print Name \_\_\_\_\_

Signed \_\_\_\_\_

Date: \_\_\_\_\_

Participant Consent Sheet – Psychometrics study for those who have completed programmes

**Research Study Title: Evaluating the impact of the RESOLVE and Self Change Programme on violent offenders and violent gang offenders**

The definition of a gang offender for this research is - *someone who associated with peers in the community, had common interests and acted together or alone to achieve a goal such as anti-social behaviour or control of an area.* Therefore, please tick yes or no to the following questions:

I have friends that are members of a gang: Yes  No

I considered myself as belonging to a gang before I came to prison Yes  No

I have been involved in illegal activities as part of this gang? Yes  No

Please print and sign your name below if you agree with the following statements:

- ✓ I have read the information sheet.
- ✓ I understand that volunteering to participate in the research study will involve accessing the questionnaires I completed when I attended either RESOLVE or the Self Change Programme.
- ✓ I have been given the opportunity to ask further questions about my participation in this research study and I am aware that I can ask questions at any time.
- ✓ I understand that there is support available to me if I feel I need it.
- ✓ I understand that I can withdraw from the research study up to one month after my consent and I do not have to explain my reasons.
- ✓ I understand that if I do withdraw from the research study, there will be no negative consequences for me and it will not affect my place on the

programme, sentence plan or impact on any future involvement I may have with Psychological Services.

- ✓ I understand that the questionnaire responses will remain anonymous rather than my name or any identifying information.
- ✓ I understand that my personal details will not be recorded in the research study report or in any potential future publications.
- ✓ Having read and understood the conditions stated in the information sheet, I wish to take part in this study.

Print Name \_\_\_\_\_

Signed \_\_\_\_\_

Date: \_\_\_\_\_

Participant Consent Sheet - Interviews

**Research Study Title: Gang Membership and violence interventions**

Please print and sign your name below if you agree with the following statements:

- ✓ I have read the information sheet and have understood what is required of me.
- ✓ I have been given the opportunity to ask further questions about my participation in this research study and I am aware that I can ask questions at any time.
- ✓ I understand that there is support available to me if I feel I need it.
- ✓ I understand that I can withdraw from the research study up to one month after the interview has taken place and I do not have to explain my reasons.
- ✓ I understand that if I do withdraw from the research study, there will be no negative consequences for me and it will not affect my sentence plan or progression or impact on any future involvement I may have with Psychological Services.
- ✓ I know that the interview responses will be kept confidential unless I provide information which suggests that I or other people are at risk of harm, or the security of the prison is threatened.
- ✓ I understand that my name and prison number will not be able to be linked to any extracts from my interview transcript that maybe used in the research study or in any potential future publications.
- ✓ Having read and understood the conditions explained in the information sheet, I wish to take part in this study.

Print Name\_\_\_\_\_

Signed\_\_\_\_\_

Date:\_\_\_\_\_

Appendix I: Description of the Psychometrics used

Psychometric Measure	Description	Reliability	Desired direction Pre to Post Programme
Eysenck's Impulsivity Scale; EIS (Eysenck, & Eysenck 1978)	22 items measuring personality traits of impulsivity, venturesomeness, and empathy.  All questions require a Yes/No answer.  High Scores indicate an individual who acts impulsively in many situations, will not plan and may be risk takers.  Low scores: suggest someone who likes to plan well ahead, cautious in decision making and thinks things through.	Test-Retest reliability 0.86  Internal Reliability 0.870	Down
State-Trait Anger Expression Inventory-2; STAXI-2 (Spielberger, 1999).	57-item inventory measuring the intensity of anger There are 6 scales and 5 Subscales:  State Anger: intensity of anger as an emotional state at a particular time which is further divided into a) feel	Internal consistency:  State anger: 0.88 State anger verbal:0.86 State anger	State anger: down State anger verbal: down

angry, b) feel like expressing anger verbally and c) feel like expressing anger physically.	physical: 0.88 State anger total: 0.94	State anger physical: down State anger total: down
Trait Anger: measures how often angry feelings are experienced over time which is divided into angry temperament and angry reaction.	Trait temper: 0.87 Trait reaction:0.72 Trait overall: 0.86	Trait temper: down Trait reaction: down Trait overall: down
Anger Expression Out: expression of anger towards other persons or objects in the environment	Anger Out: 0.73	Anger Out: down
Anger Expression In: supressing anger	Anger in: 0.74	Anger in: down
Anger Control out: controlling angry feelings by preventing the expression towards others or object	Anger control out: 0.83	Anger – control out: up
Anger Control in: controlling supressed anger by calming down or cooling off	Anger -control in: 0.91	Anger control in: up
Anger Expression Index: Overall total measure of anger expression.	Anger Index: 0.76	Anger Index: down

Questions are rated on a 4 point scale ranging from 1 (Not at all) to 4 (Very Much So)

Violence Treatment Readiness Questionnaire: VTR (Day, Howells, Casey, Ward, Chambers, & Birgden 2010)	20 item scale measuring an individual's responsiveness when in treatment. Four subscales:  Attitudes and Motivation Emotional reactions Offending Beliefs Efficacy	None recorded	Up
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Questions are rated on 5 point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). There is also a response for undecided (3)

Vengeance questionnaire; VGE (Stuckless, & Goranson, 1992)	20 item scale measuring hostile beliefs, in particular vengeance and rumination.  Questions are rated on 7 point Likert scale ranging from 1 (strongly disagree) to 7 (strongly agree). There is also a neutral response included (4).	Internal Consistency: 0.95 Test retest reliability: 0.90	Down
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High scores represent higher levels of attitude favourable to revenge.

Buss-Perry (B-P) questionnaire (Buss, & Perry, 1992).

29 item scale measuring how an individual thinks and acts in relation to violence and aggression.

Test re test reliability

Down

Four subscales:

Physical aggression (PA)

PA: 0.80

Verbal aggression (VA)

VA: 0.76

Anger (A)

A: 0.72

Hostility (H)

H:0.72

Total score: 0.80

Questions are rated on 5 point Likert scale ranging from 1 (extremely uncharacteristic of me) to 5 (extremely characteristic of me).

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## Appendix J: Participant debrief sheets

### Participant Debrief Sheet – Psychometrics study

Thank you for taking the time to participate in this research and complete the questionnaires.

The idea behind this study is to review the data from the questionnaires to evaluate whether the RESOLVE and Self Change Programme has an impact on individuals who are placed on the programmes and whether there are any difference between non-gang members and gang members.

This is an area that has not been explored before and will provide valuable information as to whether any changes need to be made to the current offending behaviour programmes available within the High Security Estate.

If you would like feedback regarding this study, please submit a general application to the researcher (Sarah Tonks) and her contact details are below. Feedback will be sent to you once the research study has been completed.

#### **Contact name and address:**

Sarah Tonks (Chartered Forensic and Registered Psychologist)

Psychological Services

[REDACTED]

[REDACTED]

[REDACTED]

## Participant Debrief Sheet - Interviews

Thank you for taking the time to participate in this research and undertake the interview.

The idea behind this study is to understand the reasons why individuals join and continue to be in a gang and their experiences of violent offending behaviour programmes. This is an area that has not been explored widely in the past with adult gang members.

By getting an insight into your feelings and opinions about your experiences will be helpful to increase knowledge on whether the programmes are helping gang members and whether any changes need to be made in the future to help gang members reduce their risk of re-offending and progress.

If you would like feedback regarding this study, please submit a general application to the researcher (Sarah Tonks) and her contact details are below. Feedback will be sent to you once the research study has been completed.

### **Contact name and address:**

Sarah Tonks (Chartered Forensic and Registered Psychologist)

Psychological Services

[REDACTED]

[REDACTED]

[REDACTED]

## Appendix K: Description of the eight thinking styles from the PICTS

**Mollification:** This reflects an individual's tendency to blame others for their reasons for becoming involved in criminal activity such as family and peers, victims or external agencies such as the police or government. For example, they pushed me first so I beat him up.

**Cut-off:** Some criminals have the ability to separate having a fear of the consequences of their actions. Therefore, this is when an individual relies on impulsive phrases such as "give up" in order to reduce the obstacle or obstacles that deter someone from committing crime.

**Entitlement:** This is where an individual who has a sense of ownership and believes they have the right or privilege to violate the law or the rights of others. Individuals here will also perceive their wants and desires as needs and musts. For example, an individual with this thinking style might state "I'm addicted so I have to steal to get money".

**Power Orientation:** This relates to an individual wanting power and control over others. For example "nothing beats the rush of punching someone".

**Sentimentality:** Individuals hold the belief that performing a positive act or "good deed" will erase the harm done as a result of their involvement in a criminal lifestyle. As a result individuals are unable to understand the consequences and harm caused on themselves, their family and friends and their victims. An example of sentimentality thinking would be "I may be a criminal but I am kind to children".

Superoptimism: This relates to the perception an individual may have that they can postpone or avoid the negative consequences of their criminal lifestyle that others may have experienced. An individual here may think “I’ve been committing crime for six months without any problems”.

Cognitive Indolence: This is when an individual believes that there is a short-cut and easier solution to the problem and as a result takes any means necessary (it’s easier to burgle than get a job). Subsequently, individuals with this thinking style are more likely to be in trouble with the Police because of the short cuts undertaken.

Discontinuity: Individuals with this thinking still reflect a tendency to become side-tracked by external events and subsequently lose sight of their original goals. For example, an individual may think “every time I leave jail I go out with the best intentions but it never lasts”.