

**A Thesis Submitted in Partial Fulfilment of the Regulations for the Degree of
Clin.Psy.D in the University of Birmingham**

**Volume I:
Research Component**

**The relationship between social climate, fear of assault, challenging behaviour and
burnout in staff who work with people with intellectual disabilities**

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Overview

This Thesis is submitted in partial fulfilment of the regulations for the degree of Clin.Psy.D in the University of Birmingham.

Volume I includes the research volume of the thesis and includes three papers that focus upon the relationship between staff, client and organisational variables with burnout in staff who work with people with intellectual disabilities. The literature review critically examines the literature related to organisational climate and burnout in staff who work within services for people with intellectual disabilities. The empirical paper examines the relationship between client (challenging behaviour), staff cognitive (fear of assault) and organisational variables (social climate) with staff burnout, and aimed to investigate which of these variables contribute most to staff burnout. These papers have been prepared for submission to the Journal of Applied Research in Intellectual Disabilities. The public domain briefing paper (Appendix 1) briefly outlines the findings from the literature review and the empirical paper.

Volume II includes five clinical practice reports that were produced as part of the assessment of clinical component of the Clin.Psy.D and are entitled:

1. Clinical Practice Report 1 (Psychological Models): Kayleigh – Formulating the case of a 3 year old with behaviour and sleeping difficulties from a psychodynamic and behavioural perspective.

2. Clinical Practice Report 2 (Service Evaluation): Parents' Experience of the Community Learning Disabilities Team – Children and Adolescents (CLDT – CA).
3. Clinical Practice Report 3 (Case Study): Using Cognitive Analytic Therapy (CAT) with a 33 year old man presenting with low mood, self harm and PTSD symptoms.
4. Clinical Practice Report 4 (Single Case Experimental Design): Connor, a 10 year old boy with a dog phobia who was treated with systematic desensitisation.
5. Clinical Practice Report 5 (Oral Presentation): Case study of a 70 year old woman experiencing low mood.

Names and identifying details were changed to ensure full confidentiality.

Contents: Volume I

<i>Literature Review: Does organisational climate impact upon burnout in staff who work with people with intellectual disabilities? A systematic review of the literature</i>	10
<i>Abstract</i>	11
<i>Introduction</i>	13
Intellectual Disabilities and Staff Burnout.....	13
Organisational Factors and Burnout in an Intellectual Disabilities Context.....	14
Aims of the Review	15
<i>Method</i>	17
Search Strategy and Search Terms Used	17
Inclusion and Exclusion Criteria.....	17
<i>Results</i>	19
<i>Impact of De-institutionalisation in UK Populations</i>	22
<i>Impact of De-institutionalisation in Non-UK Populations</i>	22
Applications of Work Stress Theories	25
<i>Person-Environment Fit</i>	25
<i>The Impact of Role Stress</i>	26
<i>Perception of Violence in the Organisation</i>	28
<i>Perception of the Organisational Culture</i>	30
Demand-Control Model.....	31
<i>The Relationship between Demands, Supports and Constraints to Staff Burnout</i>	32
<i>The Role of Social Support and Burnout</i>	34
<i>Demands, Supports and Constraints in Relation to Role Stress</i>	36
<i>Methodological Limitations</i>	37
<i>Summary and Discussion</i>	40
<i>References</i>	46
<i>Empirical Paper: An investigation into the relationship between social climate, fear of assault, challenging behaviour and burnout in staff who work with people with intellectual disabilities</i>	54
<i>Abstract</i>	55
<i>Introduction</i>	57
Staff Burnout in Services for People with Intellectual Disabilities	57
Challenging Behaviour and Staff Burnout.....	59
Fear of Assault and Staff Burnout	60
Social Climate and Staff Burnout	62
Aims and Hypotheses of the Study.....	64
<i>Methodology</i>	66
Procedure	66
Measures	67
Participants.....	70
<i>Results</i>	72
Preliminary Analyses.....	72

Correlational Analysis	73
<i>Burnout, Fear of Assault and Challenging Behaviour</i>	75
<i>Burnout and Social Climate</i>	75
<i>Social Climate, Fear of Assault and Challenging Behaviour</i>	76
Multiple Regression Analyses	76
<i>Discussion</i>	81
Methodological Limitations and Implications for Future Research	85
Clinical Implications	90
<i>References</i>	92

Index of Appendices

<i>Appendix 1: Public Domain Briefing Paper</i>	100
<i>Appendix 2: Instructions to Authors for Submission to the Journal of Applied Research in Intellectual Disabilities</i>	107
<i>Appendix 3: List of Boolean search terms used in the literature review</i>	113
<i>Appendix 4: Table of summary of articles included in the literature review</i>	115
<i>Appendix 5: Ethical Approval Letter</i>	127
<i>Appendix 6: Participant Information Sheet</i>	128
<i>Appendix 7: Consent Form</i>	132
<i>Appendix 8: Demographic Questionnaire</i>	135
<i>Appendix 9: Maslach Burnout Inventory MBI</i>	137
<i>Appendix 10: Modified version of Essen Climate Evaluation Schemas</i>	138
<i>Appendix 11: SPSS Output for Regression Diagnostics</i>	140

Index of Figures and Tables

<i>Figure 1. Search term combination for the Literature Review</i>	17
<i>Table 1. Table to show how articles were identified or excluded for inclusion in the review</i>	19
<i>Table 2. Mean values and standard deviations of the study variables</i>	72
<i>Table 3. Correlations between the subscales of the MBI, the subscales of the EssenCES, fear of assault and reported challenging behaviour using Spearman's rho</i>	74
<i>Table 4. Blocked Ordinary Least Squares Regression Analysis of the Study Variables</i> ..	78

Contents: Volume II

<i>Clinical Practice Report 1 (Psychological Models): Kayleigh – Formulating the case of a 3 year old with behaviour and sleeping difficulties from a psychodynamic and behavioural perspective</i>		10
<i>Abstract</i>		11
<i>Background Information</i>		12
Reason for Referral		12
Assessment		12
Mum’s Description of Kayleigh’s Presenting Difficulties		12
History and Development of Kayleigh’s Current Difficulties		13
Kayleigh and Mum’s Presentation during Sessions		14
<i>Psychodynamic Formulation</i>		16
Malan’s Triangles		16
Hidden Feeling		17
Defence		18
Anxiety		19
Parent or Sibling (Distant Past)		21
Other (Current Past)		22
Transference (Here and Now)		23
Reflections on Formulating from a Psychodynamic Perspective		24
<i>Behavioural Formulation</i>		26
Development of Kayleigh’s behavioural problems		26
Maintenance of Kayleigh’s behaviour problems		28
Reflections on Formulating from a Behavioural Perspective		33
<i>References</i>		36
 <i>Clinical Practice Report 2 (Service Evaluation): Parents’ Experience of the Community Learning Disabilities Team – Children and Adolescents (CLDT – CA)</i> ...		40
<i>Abstract</i>		41
<i>Introduction</i>		42
Services for Children and Young People with a Learning Disability		42
Key Policy Documents and Initiatives		43
The Community Learning Disabilities Team for Children and Adolescents		46
Aims of the Service Evaluation		47
<i>Methodology</i>		48
Design		48
Measures		48
Participants		49
<i>Results</i>		50
Section 1: First Contact with the Service		50
Section 2: The Support Received		52
Section 3: Ending Support from the Service		57
<i>Discussion</i>		62
What the CLDT – CA is doing well		62
What the CLDT – CA could improve upon		63

Strengths and Limitations of the Evaluation.....	64
<i>Recommendations</i>	66
<i>Conclusions</i>	68
<i>References</i>	70

Clinical Practice Report 3 (Case Study): Using Cognitive Analytic Therapy (CAT) with a 33 year old man presenting with low mood, self harm and PTSD symptoms 74

<i>Abstract</i>	75
<i>Section One: Assessment</i>	76
Referral.....	76
Description of Assessment Procedure.....	76
Michael’s Target Problems.....	77
Goals of the Therapy.....	77
The Psychotherapy File.....	78
Presentation and Mental Health History.....	79
Family History and Relationships.....	80
<i>Section Two: Formulation</i>	82
Re-formulation - Recognition of Dysfunctional Patterns.....	82
Core Pain.....	85
Michael’s Target Problem Procedures.....	86
Michael’s Reciprocal Role Procedures.....	91
<i>Section Three: Intervention</i>	95
Revision of Dysfunctional Patterns.....	95
<i>Outcome and Evaluation</i>	99
<i>Personal Reflections</i>	99
<i>References</i>	101

Clinical Practice Report 4 (Single Case Experimental Design): Connor, a 10 year old boy with a dog phobia who was treated with systematic desensitisation..... 103

<i>Abstract</i>	104
<i>Case Summary</i>	105
Reason for Referral.....	105
Assessment.....	105
Presenting Difficulties.....	106
History and Onset of the Problem.....	107
Family History and Relationships.....	107
Previous and Current Coping Strategies.....	109
<i>Formulation</i>	110
Pre-disposing Factors.....	110
Precipitating Factors.....	111
Maintaining Factors.....	112
<i>Intervention</i>	113
<i>Experimental Design</i>	116
Design.....	116
Baseline (Phase A).....	116
Intervention (Phase B).....	116

Consideration of other designs and limitations of AB designs.....	117
<i>Results</i>	121
Graphical Analysis.....	118
Autocorrelation.....	123
Bootstrap Analysis.....	125
Spence Children’s Anxiety Scale (SCAS) scores.....	126
<i>Discussion</i>	128
<i>References</i>	131
<i>Clinical Practice Report 5 (Oral Presentation): Case study of a 70 year old woman experiencing low mood</i>	134
<i>Abstract</i>	135
<i>References</i>	136

Index of Appendices

Appendix 1: Questionnaire.....	137
Appendix 2: Letter sent to parents.....	142
Appendix 1: An example of the Psychotherapy File.....	144
Appendix 2: A copy of the completed TPP weekly scale.....	145
Appendix 3: The Reformulation Letter.....	146
Appendix 4: The Goodbye Letter.....	149
Appendix 1: Thought Diary.....	152
Appendix 2: The Subjective Units of Distress score form.....	154
Appendix 3: Connor’s Fear Hierarchy Ladder.....	156
Appendix 4: Step-by-Step Intervention Protocol.....	158

Index of Figures

<i>Figure 1. Theoretical construct of Malan’s (1979) Triangle of Conflict and Triangle of Person.</i>	17
<i>Figure 2. Illustration of hypothesised development of presenting problem using a model of Classical Conditioning</i>	27
<i>Figure 3. Illustration of hypothesised maintenance of problem using a model of Operant Conditioning</i>	31
<i>Figure 4. Michael’s Sequential Diagrammatic Reformulations (SDR) for his TPP’s and RRP’s</i>	84
<i>Figure 5. Sequential Diagram of Michael’s placatory trap</i>	86
<i>Figure 6. Sequential Diagram of Michael’s “perfect or guilty” dilemma</i>	88
<i>Figure 7. Sequential Diagram of Michael’s self-sabotage snag</i>	90

<i>Figure 8. Formulation of Connor’s presenting difficulties based upon Carr (2006)</i>	111
<i>Figure 9. Diagram used to illustrate how Connor’s thoughts, feelings and behaviours were interlinked in the maintenance of his fear of dogs</i>	114
<i>Figure 10. Graphical Representation of Connor’s Subjective Units of Distress scores across the baseline and intervention phases</i>	119
<i>Figure 11. Graphical representation of the number of panic attacks that Connor experienced over the 9 week intervention and baseline period</i>	122

Index of Tables

<i>Table 1. Question 1 - How satisfied were you with the venue where the screening appointment took place?</i>	50
<i>Table 2. Question 2 - How satisfied were you with the way we allocated a time and date for your screening appointment?</i>	51
<i>Table 3. Question 3 - Were you happy with the screening appointment overall?</i>	51
<i>Table 4. Question 4 - Did the support offered fit with the help that you were expecting from the service?</i>	52
<i>Table 5. Question 5 - How comfortable did you feel with the practitioner who was working with you?</i>	53
<i>Table 6. Question 6 - How helpful was the practitioner in helping you to understand how to support your child?</i>	53
<i>Table 7. Question 7 - Was the support you received successful?</i>	54
<i>Table 8. Question 8 - How helpful did you find it that we visited you at home?</i>	54
<i>Table 9. Question 9 - Would you have preferred the appointments to have taken place in a clinic local to your home?</i>	55
<i>Table 10. Question 10 – How well did we communicate with you in our (a) Letters, (b) Telephone Calls and (c) Face-to-Face?</i>	56
<i>Table 11. Question 11 - How satisfied are you with the time-keeping of the practitioners when you are attending an appointment or having a home visit?</i>	56
<i>Table 12. Question 12 - How involved did you feel in deciding that support from the team should end?</i>	57
<i>Table 13. Question 13 - Did you understand why the case was being closed?</i>	58
<i>Table 14. Question 14 - Did you agree with the case being closed at that point?</i>	58
<i>Table 15. Question 15 - How would you have preferred the ending of support to be managed?</i>	59
<i>Table 16. Question 16 - Overall, what is your experience of being supported by the CLDT – CA?</i>	60
<i>Table 17. Summary of Autocorrelations for Lag 1</i>	124
<i>Table 18. Summary of Bootstrap Analysis</i>	126
<i>Table 19. Summary of Connor’s Subscale scores and Standardised Mean scores for 10 year old boys</i>	127

Literature Review

Does organisational climate impact upon burnout in staff who work with people with intellectual disabilities? A systematic review of the literature

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(For instructions to authors for submission to the Journal of Applied Research in Intellectual Disabilities see Appendix 2)

Abstract

Background

Staff stress and burnout is a prominent area of research in relation to services for people with intellectual disabilities. The aim of this paper is to review the literature in relation to organisational climate in order to investigate whether there is a relationship between organisational variables and staff burnout.

Method

A systematic literature search was carried out on studies carried out between 1990 and 2010 using the databases PsycINFO, Medline, CINAHL, EMBASE, and Google scholar by combining the search terms ‘staff burnout’, ‘environment’ and ‘intellectual disabilities’.

Results

A total of 21 articles were reviewed which broadly fell into two categories. The earlier studies tended to focus upon the impact of deinstitutionalisation within service provision, whereas more recent studies appeared to be influenced by work-stress theories, including theories related to ‘person-environment fit’ (French & Kahn, 1962; Spielberger Vagg & Wasala, 2003), and demand control theories of work stress (Karasek & Theorell, 1990; Payne, 1979). The studies were critically reviewed and summarised.

Conclusions

The research within this review appears to reflect the changes in the socio-political context and service provision for people with intellectual disabilities. Overall, it was found that an organisational climate that had a better 'person-environment' fit in terms of decreased levels of role stress and support that meet the needs of the staff in relation to the demands placed upon them promotes greater job satisfaction and reduced burnout. Future research could focus upon the social or therapeutic aspects of the environment within services for people with intellectual disabilities to address an area of research which appears to have been overlooked.

Key words: burnout, intellectual disabilities, environment, climate, staff

Introduction

Intellectual Disabilities and Staff Burnout

An important area of research related to services of people with intellectual disabilities concerns staff distress (Hastings & Horne, 2004). Stress has been defined as a reaction to a perceived threat within an individual's environment when the demands placed upon them go beyond their personal resources for coping (Lazarus & Folkman, 1984). Although stress has been defined in a number of ways within the literature, a widely used indicator of staff distress that has been applied in this area of research is the level of 'burnout' experienced by staff who work with people with intellectual disabilities (Hastings, Horne & Mitchell, 2004; Hatton, Rose & Rose, 2004). Burnout is described as a psychological syndrome that has three components, which includes emotional exhaustion, depersonalisation and reduced personal accomplishment and can be experienced by individuals within the context of working with other people in some form (Maslach & Jackson, 1981, 1986). There have been a growing number of studies investigating the factors that may contribute to burnout within research related to staff who support people with intellectual disabilities (Hastings & Horne, 2004). One reason for this increased interest is related to research which suggests that stress can impact upon the quality of service that is offered to people with intellectual disabilities. Higher levels of stress have been found to be related to fewer interactions with residents with intellectual disabilities (Rose, Jones & Fletcher, 1998) and an increase in staff turnover (Jenkins, Rose & Lovell, 1997).

A recent systematic review by Skirrow and Hatton (2007), suggested that levels of burnout amongst staff who work with people with intellectual disabilities has gradually decreased over the past twenty years. This implies that the levels of burnout reported by support staff are not as high as previously found. There have been a number of changes to service provision and social policy for people with intellectual disabilities over the past two decades. One particularly important piece of government policy from the UK that reflects these changes is “Valuing People” (Department of Health, 2001). This white paper reinforced the objective to move people from long stay hospitals to appropriate community settings and promote the idea that people with intellectual disabilities should have more choice and control over where they live. As services have moved towards more community based provision, organisations have had to change to meet this requirement. This suggests that as elements of the organisation, such as, organisational climate, structure, role responsibilities, practices and procedures, change with this transition the impact upon staff burnout levels may also be affected.

Organisational Factors and Burnout in an Intellectual Disabilities Context

Skirrow and Hatton’s review suggests that organisational and environmental factors, such as, organisational climate, were the most reliable predictor of burnout. This has been a relatively neglected area of research and relatively few studies have been carried out to specifically investigate the relationship between staff burnout and organisational factors within services for people with intellectual disabilities (Hatton, Rose & Rose, 2004). Within other health care settings, there has been a growing body of evidence which suggests that specific work stressors and a negative work climate creates adverse effects

in staff (Schaefer & Moos, 1996). Although it has been noted in the literature that a precise and unitary definition of “organisational climate” remains to be established (Singh, 2004), Boyle (2006) defined organisational climate as:

...the perceptions individuals hold about a particular unit or environment...

(Climate) describes practices and procedures of an organisation or a subunit and influences attitudes and behaviours of individuals. Climate is evident in staff perceptions of policies, practices and goal achievement. Climate reflects how things are done and the way they are done in a specific unit or organisation. (p.207)

Climate has also been described as “the recurring patterns of behaviour, attitudes and feelings that characterise life in the organisation” (Isaksen, 2007; p.4). Denison (1996) suggests that organisational climate refers to a situation that links to the thoughts, feelings and behaviours of organisational members. These definitions suggest that organisational climate is the collective perception and behaviour of the individuals within an organisation based upon the values of the organisation. Given that there have been a number of changes to the practices and procedures of service provision for people with intellectual disabilities, changes to the organisational climate within services may have occurred and impacted upon levels of burnout reported by staff.

Aims of the Review

This paper will review the literature regarding the factors relating to organisational climate and burnout for staff working with people with an intellectual disability.

Following this, the methodological limitations will be discussed and future implications for this research area will be outlined.

Method

Search Strategy and Search Terms Used

Selected search terms were entered into the following social science and medical databases:

- PsycINFO
- Medline
- CINAHL
- EMBASE
- Google scholar¹

Search terms were chosen on the basis of reading relevant literature and discussions with the research supervisor, and were combined to produce the articles for review, as outlined in Figure 1. A full list of the Boolean search terms is outlined in Appendix 3.

Figure 1. Search term combination for the Literature Review

'Staff Burnout' AND 'Environment' AND 'Intellectual Disabilities'

Inclusion and Exclusion Criteria

The searches were limited by applying the following inclusion criteria:

- Journals from 1990 – 2010
- Peer reviewed journals
- English language journals

¹Due to the limited capacity of this search engine, only the terms 'staff burnout/stress' AND 'environment/organisational climate' AND 'intellectual disabilities/learning disabilities' were used with this tool

The inclusion of articles from 1990 onwards was decided upon the basis that although there have been numerous studies focussing upon staff burnout within a number of 'helping' professions (Pines, Aronson & Kafry, 1981), comparatively fewer studies have been carried out with a focus upon burnout amongst staff working with people with intellectual disabilities prior to 1990 (Edwards & Miltenberger, 1991). It is only over the last two decades that research into burnout within this context has begun to develop.

The references of the selected articles were also examined to identify any further articles that were relevant to this review. Finally, relevant researchers within this area of research, such as, Dr Christine Maslach and Dr Rudolph Moos, were contacted to keep up to date with any new developments within the field.

Results

The search produced 44 articles for further inspection. Of those, 29 were excluded due to various reasons, as outlined in Table 1 below, which resulted in the remaining 15 articles being reviewed for inclusion in the study. A further six studies were identified from other sources, such as, the references in identified articles. For a summary of the reviewed articles, see Appendix 4.

Table 1. Table to show how articles were identified or excluded for inclusion in the review

<i>Identified Articles</i>	<i>Number of Articles</i>
Number of Articles Identified via search	44
<i>Reason for Exclusion:</i>	
Dissertation abstracts	9
Development of measurement tool	2
Non-staff population	2
Staff not working directly with person with intellectual disability	1
Staff working within an academic setting	1
Focus on personal variables (e.g. personality, coping or attribution)	6
Review paper	3
Book chapter	3
Article responding to an error in previous paper	1
Positive outcomes	1
<i>Total Number of Articles Excluded</i>	<i>29</i>
Total Identified via Literature Search	15
Number of Articles Identified via Other Sources	6
Total Number of Articles Reviewed	21

The remaining 21 identified articles broadly fell into the following two categories: the impact of deinstitutionalisation within service provision and the application of work-stress theories within organisational contexts, which will now be discussed further.

Deinstitutionalisation: The Impact of Transition from Hospital to Community Settings

An important contributing factor to levels of burnout within the context of services for people with an intellectual disability may be the changes in service provision and socio-political context, such as, the move towards deinstitutionalisation and person centred care. These changes were reflected in a number of earlier studies, where the focus was predominantly upon the impact on staff stress levels in relation to the move from long stay hospital settings to community based residential settings.

Harvey and Burns (1994) focussed upon the impact of a transitional period during a move from a hospital based setting to a community based setting on levels of burnout in staff who worked with people with profound intellectual disabilities and challenging behaviour. Using a multiple baseline design, data was collected from between 12 to 18 staff over a six month period, during which the move from two hospital wards to a community living orientated hostel that incorporated a newer person-centred model took place. Using the Maslach Burnout Inventory (MBI; Maslach & Jackson, 1981, 1986) to assess for levels of burnout, the authors found that the transitional period between months three and four was a particularly stressful period for staff, as indicated by a significant increase in the participants' overall mean scores of emotional exhaustion and depersonalisation. At month six, when the move had been completed, only emotional

exhaustion continued to be significantly higher than the scores at the initial data collection point. Chung and Corbett (1998) carried out a similar study that investigated differences between staff working in a community based setting and staff who had moved from working in an institutional setting for people with intellectual disabilities. Twelve direct care staff who worked in a community based unit and twenty-six direct care staff who worked in a newly built hospital based bungalow incorporating a new person-centred model of care took part in the study. The hospital based bungalows were built as a result of the closure of older institutional hospital wards and most of the staff from these wards were transferred to the hospital bungalows. The residents in the hospital based bungalows had significantly higher levels of challenging behaviour than the community based unit, as indicated by the Aberrant Behaviour Checklist (Aman, Singh, Stewart & Field, 1985). Challenging behaviour was not found to be significantly associated with burnout; however, the authors did not report the correlation coefficients for this relationship. The MBI indicated that the hospital based staff had significantly higher levels of emotional exhaustion and depersonalisation than the community based staff. The hospital based staff also felt that they lacked support from their supervisor and needed a greater level of training. Both of these variables were correlated with emotional exhaustion and depersonalisation.

One limitation of these studies, however, is the presence of a possible confounding variable in the form of challenging behaviour. It was likely that the transitional period may have been an unsettling period for the residents as well as staff. The Chung and Corbett study considered challenging behaviour as a variable and found that challenging

behaviour was significantly higher in the hospital bungalows; however, they did not report the relevant statistical information except that no *statistically significant* correlations with burnout were found. This makes it difficult to ascertain how much of a relationship challenging behaviour had with burnout. This data was not reported at all in the Harvey and Burns study, even though it was noted that residents exhibited challenging behaviour. This would have been interesting to investigate further to establish whether organisational change as a result of the move contributed more significantly to burnout than a possible increase in the levels of challenging behaviour.

Impact of De-institutionalisation in Non-UK Populations

Similar studies have also been carried out in other countries that have experienced changes to the service provision for people with intellectual disabilities. These studies found some contrasting results to the UK based studies. In Canada, Pelletier, Coutu and Lamonde (1995) compared differences in burnout levels between staff working in institutionally based services and staff working in a community based services for people with intellectual disabilities. One hundred and eighteen direct care staff working within institutionally based services, and one hundred and seven direct care staff working within community based services took part in the study. It was found that staff within the institutionally based services reported higher levels of personal accomplishment and lower levels of depersonalisation than staff working within the community based services. The authors did not, however, report the emotional exhaustion scores for each individual staff group. Community based staff reported significantly higher levels of stress related to administrative tasks than staff from institutional settings. It could be

suggested that staff within community based services had greater demands placed on them in terms of bureaucracy, which meant that they had less time to spend with the residents, resulting in increased levels of depersonalisation and reduced levels of accomplishment.

Another study that aimed to investigate the impact of the introduction of a person-centred model of care on burnout levels was carried out in the Netherlands by Boumans and Van den Berg (2000). Using a pre and post quasi-experimental design, 135 direct care workers formed the experimental group where the person centred model was implemented and 113 direct care workers formed the control group. No significant differences were found in levels of emotional exhaustion and depersonalisation following the implementation of the person-centred model. This finding suggested that the introduction of a newer model of care does not necessarily impact upon levels of staff burnout. The findings from this study should be viewed with caution, however, as there were some limitations in this study. Firstly, the experimental group had lower levels of emotional exhaustion and greater levels of job satisfaction prior to the new model being introduced, in comparison to the control group. This suggests that possible confounding variables were not controlled for, which may have explained the non-significant result. Secondly, it would seem that the managers of the experimental group were selected to be part of the intervention because of their motivation to implement the model in their organisations, as well as having a more stable working environment. This bias may have explained the lower levels of burnout in the experimental group prior to taking part in the study and post intervention.

Edwards and Miltenberger (1991) carried out a study in the USA that investigated whether burnout levels increased in direct care workers for people with intellectual disabilities following a move from a traditional institutional setting to community residential units. Seventy-eight direct care workers and forty-six supervisory staff who had experienced the move took part in the study. Using the MBI to assess for burnout, it was found that the supervisory staff reported higher levels of emotional exhaustion; however, supervisory staff also had higher levels of personal accomplishment than the direct care workers. No significant difference was found for the level of depersonalisation between the staff groups. This finding does not support the idea proposed by Maslach (1982) who suggests that the amount of contact with residents is significantly related to depersonalisation. It is proposed that supervisory staff may have felt a greater responsibility for the care of the staffs' wellbeing and residents' care during the move. Having a greater feeling of responsibility for both staff and residents can be both advantageous in gaining a greater sense of achievement when things are going well, but can also be a limitation when the staff are not making progress or the residents are exhibiting greater levels of challenging behaviour. This study suggests that differences between staff groups are important aspects to be considered in understanding factors related to staff burnout.

Overall, these findings suggest that it may not necessarily be the transitional period during the deinstitutionalisation process that is the most stressful aspect for staff, but other factors may be playing a role, such as, how the staff are supported through the process. As the values and structure of the organisation change, staff are likely to have

extra demands placed upon them as new models of care are introduced. This may have brought an expectation on staff to learn different skills and new ways of working. In line with this, the direction of the research appeared to move towards a greater focus upon the interaction between the person (i.e. staff) and their environment, which will be considered in the following section.

Applications of Work Stress Theories

As the deinstitutionalisation process progressed, some studies continued to focus upon comparing differences in levels of burnout between institutional and community based staff, but also moved towards focussing upon two particular models of work stress. The first model of work stress that appears to have influenced the research is based upon a 'person-environment fit' theory, whilst the second model of work stress is based upon 'demand-control' theories of work stress. These models will now be described further in relation to research within the context of burnout in staff who work with people with intellectual disabilities and organisational climate.

Person-Environment Fit

Theories of 'person-environment fit' focus upon whether there is a mismatch between the staff and their working environment. Within this model, it is suggested that stress is not necessarily a consequence of the environment or the individual, but instead is caused by a mismatch between the degree of fit between them (French & Kahn, 1962; Spielberger Vagg & Wasala, 2003). The research within this category tends to focus upon the impact

of a mismatch between the person and the environment in terms of role stress, perception of the organisational culture and perception of violence within the organisation.

The Impact of Role Stress

Based upon 'person-environment' theory, Spielberger, Vagg and Wasala (2003) propose that a mismatch between these two variables may result in individuals experiencing role overload, role conflict and role ambiguity, which may eventually lead to burnout. Continuing to focus upon differences in staff burnout in institutional versus community settings, Aitken and Schloss (1994) carried out a questionnaire based study in Australia that aimed to investigate whether there were any differences in levels of burnout in a large institutional service compared to a community based service for people with intellectual disabilities. Moving towards the idea of focussing upon theories proposed by the person-environment model, however, the authors were particularly interested in focussing upon burnout in relation to organisational variables, such as, role ambiguity, role conflict and role overload. It was found that staff from the institutional based service had significantly higher levels of emotional exhaustion and depersonalisation than staff working in the community based service. Based on the Occupational Stress Questionnaire (OSQ) (Caplan, Cobb, French, Van Harrison & Pinneau, 1975), it was found that role conflict, role clarity and role overload were significantly correlated with emotional exhaustion and depersonalisation. Staff within an institutional based service, therefore, had significantly higher scores of role conflict, role clarity and role overload than the community based staff. Boumans and Van den Berg (2000), in their study looking at the impact of working under a new model of care that was outlined earlier, also found that

the group who were working under the newly introduced person centred model had greater clarity in their roles, and indicated a greater level of job satisfaction.

Moving away from comparing the effects of deinstitutionalisation and towards a greater focus on the relationship between role stress and burnout, a number of studies have focussed specifically upon this relationship in both UK and non-UK populations. In Spain, Gil-monte and Peiró (1998) found a relationship between staff burnout and role stress levels using an adapted version of the Occupational Stress Questionnaire (OSQ) (Caplan et al, 1975). Ninety-five staff from day centres for people with intellectual disabilities completed this questionnaire along with the MBI to assess for burnout. The authors found that role conflict and role ambiguity were significantly and positively correlated with emotional exhaustion and depersonalisation. They also found that role ambiguity and role conflict were significantly and negatively correlated with personal accomplishment. A more recent study carried out in Denmark (Agervold & Andersen, 2006) also found weak, but significant, correlations between role clarity and levels of burnout in 228 staff who worked in six residential homes for people with an intellectual disability.

Three further studies have been carried out in the UK to investigate this relationship. Hatton and Emerson (1993) used a questionnaire based study to investigate whether organisational variables predict stress amongst 64 direct care workers from a residential educational unit for young adults with severe intellectual disabilities. Using path analyses, it was found that high levels of role conflict and a lack of job variety predicted

high levels of stress. Blumenthal, Lavender and Hewson (1998) also investigated the relationship between role clarity and staff burnout in homes for people with an intellectual disability. They sought to investigate whether there were any significant differences between levels of burnout in employees from an NHS (National Health Service) trust and employees from a charitable organisation. A total of 50 direct care staff from the charitable organisation and 51 direct care staff from NHS trust organisations took part in the study. It was found that staff from the NHS trust had significantly higher levels of emotional exhaustion than the staff from the charitable organisation. Although most participants in both groups reported being clear about their role, weak, but significant, correlations were found between role clarity and burnout. Hatton et al. (1999a) carried out a questionnaire based study that focussed upon investigating which factors directly and indirectly influence general distress and job strain. Four hundred and fifty direct care staff took part in the study. Using path analyses, the authors found that role ambiguity also emerged as being directly associated with general distress and job strain.

Perception of Violence in the Organisation

Two recent studies have focussed upon a whether a working environment that is characterised by high levels of violence is associated to staff burnout based upon whether the person's skills in managing violence fit with this environment. In Denmark, Agervold and Andersen (2006) aimed to investigate whether a higher incidence of violence was associated with increased staff burnout amongst 228 staff working within six residential homes for people with intellectual disabilities. The authors also aimed to investigate

whether negative perceptions of the psychosocial work environment increase the frequency of violent acts within the workplace. To assess for work related violence, participants were asked a series of ten questions relating to the frequency and type of violence, including threats of or experienced physical and verbal violence. Meanwhile, stress, burnout and a number of job variables including work pressure and role ambiguity were assessed using the Psychosocial Work Environment and Stress Questionnaire (PWSQ; Agervold, 1998a, 1998b). The authors found significant, positive correlations between actual or threat of violence and stress, burnout, role ambiguity and work pressure. By contrasting the findings from homes with a high incidence of violence with homes that had a lower incidence of violence, it was found that staff from the homes with more violence had significantly greater job pressure, burnout and stress, and significantly less clarity in their roles. These findings supported the idea that a negative perception of the psychosocial work environment is associated with a higher incidence of violence. The authors suggested that staff who had been exposed to violent incidents were subsequently more likely to view the psychosocial work environment negatively due to having a greater fear of being assaulted again in the future.

A study in the UK by Howard, Rose and Levenson (2009) also hypothesised that higher levels of staff burnout were associated with an increased fear of violence. A questionnaire based study was carried out with 44 direct care staff working in a medium-secure setting that had a high incidence of violence and 38 care staff in two community based settings that had a lower incidence of violence. Levels of actual violence, fear of violence, self-efficacy and levels of burnout were measured in both staff groups. It was predicted that

staff in the medium-secure setting would have higher levels of burnout due to having an increased fear of violence, however, no significant difference was found between the two staff groups (medium secure vs. community). Contrary to expectations, they found that the staff from the medium-secure setting reported significantly lower levels of fear of violence and greater self-efficacy in comparison to the community based staff. It was suggested that people who felt less able to deal with violence may choose not to work in such organisations and/or that staff from the medium-secure setting felt more able to effectively deal with the possibility of assault, which may have been related to variability in levels of training and exposure to violence.

Perception of the Organisational Culture

Using the same sample and measures as the previously discussed study (Hatton et al. 1999a), Hatton et al. (1999b) focussed upon investigating organisational culture within services for people with an intellectual disability and whether a mismatch between perceptions of real and ideal organisational culture result in negative staff outcomes, such as, job satisfaction, intention to leave and job strain. The authors collected data on nine factors of the perceived real and ideal culture within the organisations. These factors were related to aspects of the environment that were tolerant/staff-oriented, achievement oriented, innovative, analytical, demanding, fostering social relationships, rewarding staff, maintaining a stable work environment and resolving conflict management. Through factor analysis a number of dimensions of organisational culture were produced. It was found that higher levels of general stress, job strain and intention to leave the organisation were strongly associated with poorer person-organisation fit on some

organisational culture dimensions, such as, being tolerant and supportive of staff, the organisation being oriented towards achievement and rewarding staff for good performance. Also, higher levels of work satisfaction were strongly associated with better person-organisation fit on all the dimensions of organisational culture that the authors outlined.

Overall, the findings from these studies in this section are consistent with the ‘person-environment’ model within work stress theory and suggest that poorer person-environment fit may result in increased stress, whilst greater person-environment fit may result in increase job satisfaction.

Demand-Control Model

In terms of ‘demand control’ theories of work stress within the context of staff who work with people with intellectual disabilities and organisational climate, the two main models that have been explored within these studies are Karasek and Theorell’s (1990) demand-control-support model and Payne’s (1979) demands-supports-constraints model. Karasek and Theorell’s model suggests that stress develops from an interaction between a staff member’s perception of demands and control within their work environment, and their level of perceived support. Payne’s model is another interactional model of stress, but proposes that constraints, that is, features of the environment that inhibit staff from meeting demands, interact with perceived demands and support within a working environment.

The Relationship between Demands, Supports and Constraints to Staff Burnout

Based upon Payne's demand-support-constraint (1979) model of stress, Rose (1993) carried out a questionnaire based study that compared differences between older and newer, more community based models of care. Staff from a traditional, long stay hospital, three community residential units and eight small group homes took part in the study. Stress levels were assessed using the Thoughts and Feelings Index (Fletcher, 1989) and staff turnover rates were also recorded. A questionnaire was designed to investigate potential demands, supports and constraints experienced by staff. The results indicated that the community residential units experienced less stress overall, as indicated by their significantly lower levels of anxiety and depression. This finding was consistent with the reported rates of staff turnover, as the community residential staff had the lowest rate of turnover (15%), whilst the hospital staff had the greatest rate of turnover (27%). In general, staff within the community residential units reported having lower levels of demands than the hospital and small group homes staff. Hospital staff also reported lower levels of perceived support and greater constraints than community residential staff. These findings suggested that community residential units have less demanding and constrained environments, along with a more supportive environment than traditional institutional settings and smaller group homes.

A more recent study by Deveraux, Hastings, Noone, Firth and Totsika (2009) applied Karasek and Theorell's demand-control-support model to explore relationships between perceived work demands and support, with burnout levels amongst staff from an NHS residential hospital and a small community based unit for people with intellectual

disabilities. Ninety-six support staff, who were either qualified nurses or health care assistants, took part in the longitudinal, questionnaire based study. A sub-sample of 38 participants from the core sample also took part in a follow up study 22 months later. Longitudinal analysis revealed that perceived work demands, staff support and emotional exhaustion were relatively stable over time. Hierarchical regression analyses revealed that perceived work demands were positive predictors of burnout levels, as indicated by increased levels of emotional exhaustion. No significant main effect relationships, however, were found between perceived support and emotional exhaustion. Meanwhile, further analysis also revealed no significant interaction effects between staff support and perceived work demands in predicting emotional exhaustion, suggesting that support did not act as a mediator in the relationship between perceived work demands and burnout. A significant interaction effect was found, however, between staff support and perceived work demands in predicting personal accomplishment, suggesting that support acted as a mediator in the relationship between perceived work demands on personal accomplishment. In terms of predicted levels of personal accomplishment, it was found that support functioned differently dependent upon the perceived level of work demand, suggesting the presence of a moderated effect. This meant that staff with high demand and low support had the highest levels of personal accomplishment and staff with low demand and high support also had high levels of personal accomplishment, whereas, staff with low demand and low support had low levels of personal accomplishment. The authors suggested that a demanding environment with low levels of support may act as a protective factor, as staff depended less on the support of others and they may attribute

their achievements to their own hard work rather than through support from their colleagues.

Another recent study that applied Karasek and Theorell's demand-control-support model of work stress to investigate job strain in staff who work with people with intellectual disabilities was carried out by Lin et al. (2009) in a Taiwanese population. A large sample of 1,243 staff working within services for people with intellectual disabilities took part in the study. A mixture of staff took part, but the majority of participants were described as being front-line workers, such as, teachers and nursery workers. Although the results that are described are unclear, the authors appear to suggest that low levels of support and reward, and high levels of perceived job stress and effort were associated with high levels of strain.

The Role of Social Support and Burnout

In relation to these models, a prominent factor that emerged from the papers reviewed was the role of social support in the development of staff burnout. Evidence suggests that social support moderates the effects of job demands on stress (House, 1981; Karasek, Triantis & Chaudry, 1982). This suggests that an individual working in an environment with high demands, but also high levels of support will experience low levels of stress, whereas an individual working in an environment with high demands and low levels of support will experience high levels of stress. It has been suggested that staff support can act as a moderator of stress within staff who work with people with intellectual

disabilities (Rose, 1995; 1999). Although the Devereux et al. study outlined in this paper does not support this idea.

Gardner and Rose (1994) carried out a questionnaire based intervention study in a social services day centre with 18 direct care staff working with people with intellectual disabilities who took part in a stress management program. It was found that staff had high levels of anxiety and depression, as indicated by the Thoughts and Feelings Index (Fletcher, 1989), which were correlated with an increased perception of work stress. Staff identified aspects related to the extra demand that had been placed on them due to clients increasingly displaying challenging behaviour and becoming more dependent. Staff were also expected to offer extra skills, such as, offering more therapeutic activities, which added to the extra demand on them, often without additional training. The findings from this study support the idea that an environment with high demands, but low support in the form of lack of training is associated with an increase in levels of staff stress.

Gil-monte and Peiró (1998) found that a relationship between staff support and burnout, as supervisor and co-worker support was negatively associated with emotional exhaustion. Hatton et al. (1999a) also found that lack of staff support was associated with job strain, and increased staff support was associated with greater levels of work satisfaction. Shaddock, Hill and van Limbeek (1998) carried out a study in Australia with 173 direct care workers in community based residential services for people with intellectual disabilities. They found that the presence of a supportive family at home and staff support was associated with less reported burnout.

Staff support has also been found to be important across all levels of staff groups within an organisational hierarchy. Ito, Kurita and Shiiya (1999) carried out a large scale questionnaire based study in Japan with 3,774 staff working within services for people with intellectual disabilities. They found that although direct-care staff had higher levels of burnout when compared to managerial or indirect care staff members, the presence of supervisor support, however, produced significantly lower burnout scores across all staff groups. This supports the idea that staff support can act as a moderator to staff stress (Rose, 1995; 1999) when applied to different staff groups.

Demands, Supports and Constraints in Relation to Role Stress

Relating the function of social support to aspects of role stress, as discussed earlier, Hatton and Emerson (1993) found that a high level of role conflict was predicted by a low level of support from supervisors. They also found that supervisor support and feedback was positively related to overall job satisfaction. Using the same sample as the previously discussed studies (Hatton et al., 1999a, 1999b), Hatton et al. (2001) found that high job strain was associated with a lack of staff support and increased role ambiguity. These findings suggest that lack of staff support may lead to greater role stress and reduced job satisfaction.

Dyer and Quine (1998) also carried out a questionnaire based study, based upon Payne's model of work stress, with 80 direct care staff from a community based NHS service for people with intellectual disabilities. Factor analysis revealed three types of demands within the work environment, which were related to: resident characteristics (e.g.

challenging behaviour, severity of disability and communication difficulties), non-participation in decision-making and aspects of role stress (i.e. role overload, role conflict and role ambiguity). Correlational analysis showed that burnout was positively correlated with role conflict and role ambiguity, whilst analysis of variance revealed that an increase in demands have a negative effect on job satisfaction and burnout. It was also found that support was negatively correlated with burnout and positively correlated with job satisfaction. Meanwhile, staff also reported that a lack of support from management and a lack of involvement in decision making contributed to a general feeling of constraint within the work environment. Overall, these findings suggest that a demanding working environment that is characterised by role stress, along with a lack of support and a greater level of constraint contributes to increased burnout in staff working with people with intellectual disabilities.

Methodological Limitations

Although some of the methodological limitations in relation to individual studies have been raised throughout this review, it is helpful to consider some of the overall limitations that are common to a number of studies within this research area.

A major limitation that was common to many of the studies within this review is the use of cross-sectional designs (e.g. Chung & Corbett, 1998; Edwards & Miltenberger, 1991; Pelletier et al., 1995). Organisational variables, such as, climate, structure and job roles, can be dynamic in nature dependent upon wider systemic influences. A more preferred, longitudinal design would provide a better opportunity to infer greater causality. The

Devereux et al. study tried to employ a longitudinal study, but unfortunately was subject to a large attrition rate.

A number of studies used heterogeneous samples in terms of staff groups, such as, pooling managerial staff together with direct care staff (e.g. Aitken & Schloss, 1994; Blumenthal et al., 1998; Devereux et al., 2009; Lin et al., 2009). The studies (e.g. Ito et al. 1999; Edwards & Miltenberger, 1991) that did not pool staff groups together in the analysis found differences in staff burnout levels, which suggests that job role is an important factor to consider in the development of burnout. Some studies (e.g. Boumans & Van den Berg, 2000; Hatton et al. 1999a, 1999b) also pooled together samples from diverse organisational service settings, such as, NHS vs. independent organisations and community residential vs. hospital based settings. The studies (e.g. Blumenthal et al., 1998; Rose, 1993) that investigated staff burnout by focussing upon distinct service settings found differences in levels of burnout based upon the service, which suggests that service setting is also an important factor to consider in the development of burnout. Furthermore, a difficulty in carrying out research in services for people with intellectual disabilities is the diverse and complex systems that are being studied. Rose (1993) noted that services for people with an intellectual disability may have differences in terms of the size of the staff group, staff skill mix and management style. These factors may influence levels of staff burnout within an organisation.

It is also important to highlight the difficulty in comparing studies that have used different measures of variable quality to assess factors related to stress and burnout.

Although the majority of studies used the MBI to measure burnout, other measures were used to assess burnout, stress or job strain, such as, the Thoughts and Feelings index (Fletcher, 1989) and the Malaise Stress Inventory (Rutter, Tizard & Whitmore, 1970). As outlined earlier, there have been a number of definitions of staff distress proposed in the literature. On a conceptual basis, it is difficult to compare findings that have used different measures that may have distinct conceptual constructs. Also, some of the studies used a narrow set of measures to assess complex variables, such as, supervisor support (Ito et al. 1999), when in reality it may be a combination of many factors that form the constructs within the variable being assessed.

Summary and Discussion

This paper aimed to review the literature regarding factors related to organisational climate and burnout in staff working with people with intellectual disabilities. The earlier studies (Aitken & Schloss, 1994; Boumans & Van den Berg, 2000; Chung & Corbett, 1998; Harvey & Burns, 1994; Edwards & Miltenberger, 1991; Pelletier et al., 1995; Rose, 1993) outlined in this review appeared to capture changes that were happening as a result of the deinstitutionalisation process, both in the UK and abroad. As this process came to an end, the later studies appeared to reflect the impact of changes to service provision in terms of a greater emphasis on the interaction between the staff and their environment through the application of work stress theories. Both of these strands of research formed some interesting findings, which will now be discussed further along with some implications for future research.

The majority of the earlier studies (Aitken & Schloss, 1994; Chung & Corbett, 1998; Harvey & Burns, 1994; Rose, 1993) that focussed upon the effects of the transition away from older models of institutionalised care towards a more person-centred or community based model of care suggest that this has reduced levels of staff burnout. This corresponds with Skirrow and Hatton's finding that burnout levels amongst staff working with people with intellectual disabilities have reduced over time. Some of these studies, however, suggested that the implementation of a person-centred or community based model of care had greater levels of burnout (Pelletier et al., 1999) or had no effect on burnout levels (Boumans & Van den Berg, 2000). The latter study, however, had a number of limitations, so these findings should be viewed with caution. Rose (1999)

suggests that the way in which changes are introduced within a service can impact upon levels of staff stress depending on how they are implemented and managed. It could be suggested that the initial transition phase during the process of deinstitutionalisation or the introduction of a different way of working is more stressful as staff learn to take on a different perspective in how they work with people with intellectual disabilities, as well as having greater demands placed on them in terms of administrative or training requirements. As the values of the organisation change with the introduction of different models of care the staff would probably be expected to change or modify their values in line with a more person-centred perspective. This may explain some of the conflict that staff have within their roles.

With the completion of the deinstitutionalisation process, the research appeared to steer towards a focus upon the potential challenges of implementing more community and person-centred based approaches in terms of theories related to 'person-environment' fit, and the demand-control models of work stress. The findings from the studies outlined in this review suggest that role stress is an important factor to consider in relation to burnout in staff who work with people with intellectual disabilities. More specifically, a role that is ambiguous with an increased level of conflict and burden of work is associated with an increase in staff burnout. Some studies (Aitken & Schloss, 1994; Boumans & Van den Berg, 2000) found that the introduction of more person-centred community models of care promoted a greater sense of role clarity, whilst reducing role conflict and a feeling of being overburdened. The majority of the findings from these studies support the idea that the presence of a supportive working environment, with fewer constraints, at a level

which matches staff needs based upon the demands within the environment may contribute to higher levels of job satisfaction and play a protective role in the development of burnout. Furthermore, in line with the ideas proposed by the 'person-environment fit' theory of work stress, some of the studies (Agervold & Andersen, 2006; Howard et al, 2009) suggested that an organisational climate that is characterised by a greater exposure to violence may impact upon levels of staff burnout dependent upon whether the organisational climate fits with the person's training, experience and desire to work within this type of environment. This suggests that if staff are supported in dealing more effectively with challenging behaviour through further training, for example, it may provide a better fit between staff and their environment.

The findings from the papers also highlighted important aspects in relation to different job roles within an organisational hierarchy. One study (Edwards & Miltenberger, 1991) found differences amongst supervisory or managerial staff and direct-care workers. This was particularly evident during a phase of transition, whereby supervisory staff experienced greater levels of burnout during a move towards deinstitutionalisation. It was proposed that this may be related to the increased demands placed on them in terms of responsibility for the care of staff and residents during the move. Furthermore, it was found that staff support is important across all levels of staff groups within the hierarchy in order to reduce levels of staff burnout within an organisation.

Rose (1999) suggests that as resources improve through better working conditions and better staff ratios, it is hoped that this would lead to a decrease in the demands that are

placed on staff, as well as improving the quality of the service that is offered to people with intellectual disabilities through a reduction in staff stress. This proposes that a high level of staff stress within services for people with intellectual disabilities is not inevitable, which suggests that organisations can work towards reducing or preventing staff burnout by intervening at an organisational level by aiming to reduce role stress and reducing the demands and constraints on staff by supporting staff through training to develop their skills.

One of the main difficulties in investigating the factors relating to staff burnout is that there could be numerous variables related to the organisation, staff and residents that interact with one another in the development of burnout. Many of the services have their own individual features and complexities that may be difficult to capture, which creates complications when comparing different services. In addition to focussing upon factors related to the organisation, some of the studies outlined in this review also investigated a variety of factors relating to staff related variables, such as, fear of violence (Howard et al., 2009) and client related variables, such as, challenging behaviour (Chung & Corbett, 1998). Future research could aim to focus more explicitly upon a wider variety of factors that may relate to the units within these systems, namely factors related to the organisation, staff and clients.

One area of research related to organisational variables that has been relatively neglected is the social and/or therapeutic climate of services for people with intellectual disabilities and its relationship to staff burnout. Less attention may have been paid to the social-

therapeutic aspects of the environment within services for people with intellectual disabilities as traditionally people with intellectual disabilities have not always been seen as being capable of receiving psychotherapeutic support as part of their care package. Bender (1993) suggests that this may be due to the presence of ‘therapeutic disdain’ in services for people with intellectual disabilities. Evidence suggests, however, that people with intellectual disabilities may be more likely to experience mental health problems than the general population, due to factors, such as, unemployment, social isolation and stigmatisation (e.g. Deb, Thomas, & Bright, 2001; Moss et al., 1998). This ‘therapeutic disdain’ may also have influenced this area of research, as the focus upon social-therapeutic environments and staff burnout appears to be a neglected area when compared to research in other staff groups, such as, in psychiatric (e.g. Jones, Janman, Payne & Rick, 1987), nursing (e.g. Lucas, Atwood & Hagaman, 1993) and forensic (e.g. Beech & Fordham, 1997) settings. The social climate of an organisation has been described as the ‘personality’ of a setting or environment (Moos, 1987). It would be useful to investigate aspects of the social or therapeutic climate alongside other staff and client related variables in relation to staff burnout to address this area of research that appears to have been overlooked.

In conclusion, this review found that earlier studies tended to focus upon the influences of change that have occurred within the socio-political context and service provision for people with intellectual disabilities. Later studies tended to focus upon factors related to work-stress theories of staff burnout. The findings of these studies suggested that an organisational climate that had a better ‘person-environment’ fit in terms of decreased

levels of role stress, with a level of support that meet the needs of the staff in terms of the demands placed upon them promotes greater job satisfaction and reduced burnout. However, there were a number of limitations with the studies, such as, variation in the use of measures that were used in the studies and the use of heterogeneous samples. Future research could focus upon the social or therapeutic aspects of the environment within services for people with intellectual disabilities to address this relatively neglected area of research.

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Empirical Paper

**An investigation into the relationship between social climate, fear of assault,
challenging behaviour and burnout in staff who work with people with intellectual
disabilities**

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*(For instructions to authors for submission to the Journal of Applied Research in
Intellectual Disabilities see Appendix 2)*

Abstract

Background

Staff burnout can have both indirect and direct negative consequences on services for people with intellectual disabilities. A wide range of factors have been considered in investigating the causes of staff burnout and it would appear that these variables predominantly fall into three categories, namely characteristics related to clients, staff and the organisation. Previous research has shown mixed results in suggesting that any one of these variables contribute most to burnout in staff who work with people with intellectual disabilities.

Aims

This study aims to explore the relationship between client (challenging behaviour), staff cognitive (fear of assault) and organisational variables (social climate) with staff burnout, and to investigate which of these variables contribute most to staff burnout.

Method

Data was collected from 77 staff working in residential services for people with intellectual disabilities who completed a self-report questionnaire that measured burnout, levels of challenging behaviour, fear of assault and social climate.

Results

Burnout was associated with increased fear of assault and challenging behaviour, and a negative social climate. Regression analyses indicated that challenging behaviour and

fear of assault contributed uniquely to the explained variance in staff burnout. Social climate, however, did not explain significantly more of the variance when it was included in the regression equation.

Conclusions

The most consistent finding throughout the study was the important role that exposure to high levels of challenging behaviour and increased fear of assault have in understanding staff burnout. The clinical and research implications are discussed along with the methodological limitations of the study, particularly in relation to the issue of the conceptual overlap between some of the measures.

Key words: burnout, staff, intellectual disabilities, challenging behaviour, fear of assault, environment, social climate

Introduction

Staff Burnout in Services for People with Intellectual Disabilities

Over recent years, there has been an increasing interest in staff who work within services for people with intellectual disabilities (Hatton, Rose & Rose, 2004). One area of research that has begun to dominate is related to staff distress (Hastings & Horne, 2004). One study in the UK found that 32% of staff who work with people with intellectual disabilities reported clinically significant levels of general distress (Hatton et al., 1999a). This increased interest in staff distress may have stemmed from research which suggests that stress can have a negative impact on the quality of services that are offered to people with intellectual disabilities (Hastings & Remington, 1994; Rose, Jones & Fletcher, 1998). Stress can directly impact upon the way staff interact with residents with an intellectual disability (Hastings, 2002). Staff with high levels of stress may have fewer interactions with residents (Rose, Jones & Fletcher, 1998) and higher reported stress is associated with increased staff turnover and thus increased service expenditure (Jenkins, Rose & Lovell, 1997).

A commonly used indicator of staff distress that has been applied in this area of research is the level of 'burnout' experienced by support staff who work with people with intellectual disabilities (Hastings, Horne & Mitchell, 2004; Hatton, Rose & Rose, 2004). Burnout is described as a psychological syndrome that has three components, which include emotional exhaustion, depersonalisation and a reduced sense of personal accomplishment, and can be experienced by individuals within the context of working with people in some form (Maslach & Jackson, 1981, 1986). It has been suggested that

burnout develops through a sequential process whereby emotional exhaustion leads to depersonalisation, which is then followed by a decreased sense of personal accomplishment (Maslach, 1982). A wide range of factors have been considered in research into burnout in staff who support people with intellectual disabilities, but the research predominantly falls into three categories, which include client related factors, staff characteristics, and the organisational context (Hastings, 2002; Hastings & Horne, 2004; Rose, 2009). Based upon findings within the literature, Rose (1995, 1997) proposed a framework for understanding influences of co-worker (e.g. social support), client (e.g. challenging behaviour) and organisational (e.g. management) factors on staff strain by suggesting that each factor is a layer within a system. The framework is similar to the layers of an onion whereby client factors are the closest influence of staff strain, followed by co-worker factors and then organisational factors. The influence of each layer depends upon the proximity of the layers to one another. This suggests, therefore, that organisational factors will have less influence on staff strain than co-worker factors, whilst client factors will have the greatest influence on staff strain due to being closer in proximity. The findings within more recent literature have been mixed, however, and it is unclear as to which of these variables contribute most significantly to burnout. This study will consider particular aspects of these areas and specifically focus upon the client related characteristic of challenging behaviour, followed by the staff cognitive variable of fear of assault, and then the organisational variable of social climate.

Challenging Behaviour and Staff Burnout

Staff who work within services for people with intellectual disabilities and challenging behaviour may be subjected to verbal and physical abuse on a daily basis, as well as witnessing distressing behaviours, such as, self-injurious behaviour, which is a common experience for many staff (Harris, 1993; McKenzie, Simpson, Matheson, Murray, & Paxton, 2000). Challenging behaviour can increase with a lack of communication skills and severity of intellectual disability (Holden & Gitlesen, 2006) and is frequently a cause of stressful emotional reactions in caregivers (Hastings & Brown, 2002). It has typically been defined as;

...culturally abnormal behaviour(s) of such an intensity, frequency or duration that the physical safety of the person or others is likely to be placed in serious jeopardy, or behaviour that is likely to seriously limit use of or result in the person being denied access to ordinary community facilities.

(Emerson, 1995, p. 4 – 5)

Challenging behaviour may include aggression, both verbal and physical, self-injurious behaviour and non-injurious stereo-typed behaviours. Research (e.g. Chavira et al., 2000; Hastings, 1995; Hatton, Brown, Caine, & Emerson, 1995; Jenkins, et al., 1997; Male & May, 1997; Rose, 1999) has suggested that challenging behaviour is generally associated with being the most stressful aspect of working with people intellectual disabilities. In a factor analytic study, Hatton et al. (1999b) also found that challenging behaviour emerged as the factor which explained the largest amount of variance in stressors amongst staff working in services for people with intellectual disabilities. Hatton et al. (1999b, 2001) suggest, however, that when aspects of the organisation are included as a

study variable, client related factors do not emerge as the most important variable to influence staff stress, but instead it is aspects of the organisation, such as, lack of staff support and influence over decision making, and role ambiguity, that accounts for most of the variance. In their review of the literature, Skirrow and Hatton (2007) also noted that organisational variables were a more reliable predictor of burnout when compared with staff and client related variables. These findings contradict Rose's model of staff stress that was outlined earlier.

Fear of Assault and Staff Burnout

Research into the cognitive and emotional variables of staff, such as, attributions and coping styles (Bromley & Emerson, 1995; Mitchell & Hastings, 2001; Rose, Horne, Rose & Hastings, 2004), in relation to challenging behaviour has increased over recent years. One area that has recently been investigated in the context of staff who work with people with intellectual disabilities is the cognitive variable of fear of assault. Barling (1996) suggests that one of the major drawbacks of being exposed to a high level of aggression or violence in the work environment is the fear of subsequent assaults. Lazarus (1999), however, proposed that it is not the actual exposure to aggression that causes the fear response, but it is the individual's appraisal of the event which may cause the stress reaction and affects the likelihood of an individual experiencing the situation as threatening.

Relatively few studies have investigated the relationship between fear of assault with staff stress or burnout in the context of staff who work in services for people with

intellectual disabilities. Murray, Sinclair, Kidd, Quigley and McKenzie (1999) found no significant relationship between staff sickness levels and levels of physical assault in staff who worked on a unit for people with intellectual disabilities with high levels of challenging behaviour. Two more recent studies have found contrasting findings in relation to the relationship between challenging behaviour, fear of assault and staff burnout. Rose and Cleary (2007) investigated whether fear of assault was greater when staff were exposed to higher levels of challenging behaviour by comparing a medium-secure residential service, with greater levels of challenging behaviour, to a community based residential service, with lower levels of challenging behaviour. Using a measure that was developed by Leather, Beale, Lawrence and Dickson (2007) to investigate fear of violence amongst publicans, it was found that the staff from the medium-secure service had significantly greater levels of fear of assault than the staff from the community-based setting. This suggests that the participants who had a greater exposure to challenging behaviour had an increased fear of being assaulted.

Using a different measure of fear of violence (Van der Wurff, Stringer, & Timmer, 1988), Howard, Rose and Levenson (2009) found no significant difference in levels of staff burnout when comparing two distinct (high levels of challenging behaviour vs. lower levels of challenging behaviour) services. It was found, however, that staff from the service with higher levels of challenging behaviour also had significantly higher levels of self-efficacy, which suggested that self efficacy may have moderated the relationship between levels of challenging behaviour and burnout. The findings from this study suggest that the staff from the service with higher levels of challenging behaviour may

have been better able to cope with challenging behaviour. Variation in levels of training in challenging behaviour was indicated as a possible reason for this finding. It was also suggested that staff with a higher fear of being assaulted as a result of challenging behaviour may leave the organisation or choose not to work in settings where exposure to high levels of challenging behaviour is present.

Social Climate and Staff Burnout

There is a growing body of evidence which suggests that a negative working environment creates adverse effects in staff who work within a health care setting (Schaefer & Moos, 1996). A relatively small number of studies, however, have been carried out to investigate the relationship between staff burnout and the working environment within services for people with intellectual disabilities (Hatton, Rose & Rose, 2004).

Studies that have focussed upon staff burnout in relation to particular aspects of the environment within services for people with intellectual disabilities suggest that lack of support (Hatton et al., 1999a; Ito, Kurita & Shiiya, 1999; Shaddock, Hill & van Limbeek, 1998), high demands and constraints (Deveraux et al., 2009; Rose, 1993), and a lack of person-environment 'fit' (Hatton et al., 1999c), are related job dissatisfaction and burnout. Less attention has been paid, however, to the social and therapeutic aspects of the environment for services for people with intellectual disabilities in comparison to studies with other staff groups, such as, staff within forensic, nursing and psychiatric settings. In a study that aimed to measure the social climate of a forensic ward, Schalast, Redies, Collins, Stacey and Howells (2008) designed a questionnaire called the

EssenCES to assess dimensions of the social climate, which formed 3 subscales and included 'therapeutic hold', 'patient cohesion and mutual support' and 'experienced safety (vs. threat of violence)'. The 'therapeutic hold' subscale assessed the degree to which the climate is viewed as supportive of patients' therapeutic needs, whilst the 'experienced safety' subscale related to the degree of perceived conflict, and the threat of violence and aggression, and finally the 'patient cohesion and mutual support' subscale related to the degree to which cohesion and mutual support between staff and patients that is characteristic of a 'therapeutic community' (Kelly, Hill, Boardman & Overton, 2004) is present. It has been suggested that cohesion and mutual support are important characteristics for a group to work effectively and therapeutically (Firth, 2004). This has been linked to reduced levels of staff burnout in a general nursing hospital environment, where greater group cohesion encouraged greater job satisfaction and reduced staff turnover (Lucas, Atwood & Hagaman, 1993). Cohesion and mutual support have also been linked to effective working environments in a group based intervention of sexual offenders in a forensic service where high levels of cohesiveness and the presence of supportive, non-aggressive, leaders contributed towards a more positive social-therapeutic climate (Beech & Fordham, 1997). Finally, Jones, Janman, Payne and Rick (1987) found that an environment that fostered a more positive interpersonal environment predicted lower levels of emotional exhaustion amongst psychiatric staff working within acute care hospitals and nursing homes. Although a validation and normative data study (Howells et al., 2009) has been carried out with the EssenCES in a forensic setting in the UK, there have been no studies to date that have applied this measure to investigate aspects of the social climate within services for people with intellectual disabilities. It

could be argued, however, that the assessment of these aspects of social climate and its relationship to staff burnout is equally as important for services that provide support to people with intellectual disabilities.

Aims and Hypotheses of the Study

One aim of this study is to investigate whether characteristics related to clients, staff or the organisation are associated to burnout in staff who work within services for people with an intellectual disability. A second aim is to ascertain which of these variables influences staff burnout most significantly. Findings from current research appear to be relatively mixed, as more recent research proposes that organisational variables are more influential in the development of staff burnout (Hatton et al., 1999b, 2001; Skirrow & Hatton, 2007). Although there has been less research carried out investigating the relationship between staff burnout and staff cognitive variables, such as, fear of assault, the findings from these studies have also been relatively mixed. Based upon Rose's model of staff stress that was outlined earlier, it would be interesting to compare the contributions of exposure to challenging behaviour, staff cognitive variables (fear of assault) and organisational variables (social climate), to represent the different layers of the system of client, staff and organisational variables.

Based upon the research that has been outlined, this study will be testing the following hypotheses:

1. Greater levels of challenging behaviour will be associated with an increased level of staff burnout.

2. An increase in fear of assault will be associated with an increased level of staff burnout.
3. A more positive social climate will be associated with a reduced level of staff burnout.
4. Levels of reported challenging behaviour, fear of assault and social climate will all make a distinct contribution to predicting staff burnout. It is predicted that organisational factors (social climate) will contribute uniquely to the variance explained after both client factors (challenging behaviour) and staff cognitive factors (fear of assault) have been included in the regression equation.

Methodology

Procedure

Ethical approval (Appendix 5) was gained via South Staffordshire Local Research Ethics Committee. Following this, consent was gained via home managers of the services that agreed to take part in the study to distribute the questionnaire packs to staff. Managers were given the option of the researcher distributing the questionnaires and being available for questions, or distributing the questionnaires at a time that was convenient for them. Once the questionnaires and consent form were completed the staff were asked to place them in a sealed envelope and either post the completed packs directly to the researcher or give them to the managers to store in a secure place for the researcher to collect at an agreed time. It was requested that the home manager remind staff about completing the questionnaire during regular staff meetings.

The researchers contact details were made available to participants for any questions following the completion of the questionnaires. Participants were reassured that confidentiality and anonymity would be maintained throughout the study, and they were informed that they could withdraw from the study for up to 2 weeks following the completion of the questionnaire, following which the data was pooled into a central database. Completion of the questionnaire took approximately between 20 to 25 minutes.

Measures

Each participant was asked to complete a questionnaire pack, which included an information sheet (Appendix 6), a consent form (Appendix 7) and a demographic information form (Appendix 8) to collect data on the participant's age, gender, qualifications, job title, training received, length of time worked in current service and with people with intellectual disabilities. The following measures were also included to measure burnout, the social climate, fear of assault and the level of residents' challenging behaviour:

Maslach Burnout Inventory (MBI; Maslach & Jackson, 1981; 1986; Appendix 9). The MBI is a 22-item questionnaire that provides a score for intensity and frequency of burnout in each of the following three domains: emotional exhaustion, depersonalisation and personal accomplishment. High levels of burnout are indicated by high scores on emotional exhaustion and depersonalisation, and low scores on personal accomplishment. The items in each subscale are scored on a 6-item Likert scale that asks participants to rate the frequency in which they experience the feeling or attitude that is described. It has been found that the MBI has good construct validity and internal consistency for the 3 subscales of the MBI (Emotional Exhaustion, $\alpha = 0.87$; Depersonalisation, $\alpha = 0.68$; Personal Accomplishment, $\alpha = 0.76$), with staff working in services for people with intellectual disabilities (Hastings, Horne & Mitchell, 2004).

Modified version of Essen Climate Evaluation Schema (EssenCES; Schalast, Redies, Collins, Stacey & Howells, 2008; Appendix 10). The EssenCES is a 15-item

questionnaire that provides a score related to the social climate in each of the following 3 domains: ‘therapeutic hold’, ‘patients’ cohesion and mutual support’, and ‘experienced safety (vs. threat of aggression and violence)’ that were discussed earlier. The items are assessed on a five point Likert scale from “not at all” to “very much”. Items on the therapeutic hold subscale include “Staff take a personal interest in the progress of patients” and “Staff know the patients and their personal histories very well”. Items on the ‘patients’ cohesion and mutual support’ subscale include “Even the weakest patients find support from his/her fellow patients” and “there is good peer support among patients”. Whilst, items on the experienced safety (vs. threat of aggression and violence) subscale include “There are some really aggressive patients in this unit” and “At times, members of staff feel threatened by some of the patients”. High scores in each of the domains represent a positive social climate. The EssenCES was originally designed to assess the social climate of forensic psychiatric wards, but this measure could also be used in similar settings, such as, environments with high levels of challenging behaviour. Both staff and clients can complete the questionnaire. The wording of the questionnaire was adapted in the current study so that it was more appropriate for the services that were participating, so instead of using the term “patient” in the questions this word was changed to “resident”. The domain of Patients’ Cohesion and Mutual Support also changed to Resident Cohesion and Mutual Support, although the concept remained the same. It has been found that the EssenCES has high internal consistency (Therapeutic Hold, $\alpha = 0.74$; Patient Cohesion and Mutual Support, $\alpha = 0.78$; Experienced Safety, $\alpha = 0.77$), with staff working in a forensic ward (Howells et al., 2009). A pilot study carried out by an undergraduate student (Deshpande, 2009), where high internal consistency and

good test retest reliability was established (Therapeutic Hold, $\alpha = 0.77$, $r = 0.88$; Patient Cohesion and Mutual Support, $\alpha = 0.73$, $r = 0.88$; Experienced Safety, $\alpha = 0.84$, $r = 0.96$) with staff working in a residential setting for adults with intellectual disabilities.

Fear of Assault Measure (Leather et al, 1997)

Two questions were included from Leather et al.'s Fear of Assault Measure, which measures exposure to a range of work-related violent assaults and fear of violence. This questionnaire was originally used to assess exposure of work-related violence and the mediating impact of fear in a sample of public house licensees. For this study, the questions focussed upon fear of the possibility of violence and how at risk the individual feels exposed to violence.

Reported Level of Challenging Behaviour Measure (Winstanley & Whittington, 2002).

Two questions were included from Winstanley and Whittington Actual Level of Violence Measure, which was constructed to examine staffs' experiences of challenging behaviour in the form of physical and verbal aggression, in terms of frequency over the previous 12 months. This measure was modified to assist participants in answering the question, as some staff may have had difficulty in remembering exact numbers of incidents, therefore, the responses were scaled as "Not at all", "1-2 times", "3-4 times", "5-6 times" and "More than 6 times".

Participants

Ten organisations providing residential services for people with intellectual disabilities were approached to take part in the study. The majority of the services were NHS based services (N = 6), whilst independent services (N = 3) and Social Services (N = 1) also took part. The settings where the participants worked were relatively heterogeneous and included low secure hospitals, community based residential homes and small group homes.

The inclusion criteria for the selection of suitable participants included both qualified and unqualified staff who worked directly with people with an intellectual disability who displayed some challenging behaviour on a regular, that is, at least weekly, basis. It was also expected that the staff currently worked within a residential services for people with intellectual disabilities and had worked with the residents for at least three months.

Using Cohen's (1988) principles for describing effect sizes for a comparison using logistic regression with three independent variables, the proposed study would require approximately 76 participants in order to show a medium experimental effect (power = 0.8; $\alpha = 0.05$; two tailed). Of the 333 questionnaires that were distributed, 78 were returned, which gave a 23.4% response rate. One of the questionnaires had to be excluded on the basis that the staff member had worked at the organisation for less than 3 months. The remaining 77 participants formed the sample group. The majority of the participants were female (70.1%) and the age of the participants ranged from 18 to 62 years old (M = 36.9, SD = 11.9). More than half of the participants were support workers (62.3%) and

the remainder of the sample consisted of staff nurses, assistant psychologists, teachers, team leaders and/or managers. The participants were relatively stable in their jobs and were experienced in working with people with intellectual disabilities, as they had been employed by the service in which they worked for an average of 5.2 years (SD = 8.6 months), whilst they had been working with people with intellectual disabilities for an average of 8.4 years (SD = 11.2 months). Nearly half (45.5%) of the participants had an NVQ (National Vocational Qualification), which is a nationally recognised health and social care qualification, whilst the remainder of participants had qualifications up to degree/Registered Mental Health Nurse/Registered Nurse in Learning Disabilities level (33.8%) or A-levels/Diploma (3.9%). In terms of training received in working with people with challenging behaviours, such as, breakaway and conflict management training, 19.5% of participants reported receiving this training.

Results

Preliminary Analyses

A series of descriptive analyses were carried out to establish the means and standard deviations of the study variables, which are presented in Table 2. To assess the data for normality, one sample Kolmogorov-Smirnov tests were carried out on each of the study variables. The analyses indicated that the some of the data was not normally distributed, including data from reported challenging behaviour, fear of assault and depersonalisation; therefore non-parametric tests were used for further analysis of the data, with the exception of the regression analyses, as there was no non-parametric alternative.

Table 2. Mean values and standard deviations of the study variables

Measure	Mean	SD	N
<i>MBI</i>			
Emotional Exhaustion ^a	19.86	11.09	74
Depersonalisation ^b	4.72	5.38	74
Personal Accomplishment ^c	36.40	6.67	73
<i>EssenCES</i>			
Resident Cohesion & Mutual Support ^d	8.66	4.58	74
Therapeutic Hold ^d	15.78	3.00	76
Experienced Safety ^d	8.07	4.75	77
<i>Fear of Assault^e</i>	5.31	2.01	77
<i>Reported Challenging Behaviour^f</i>	4.31	3.76	77

Note:

^a Higher scores indicate greater emotional exhaustion. Total possible score ranges from 0 to 54

^b Higher scores indicate greater depersonalisation. Total possible score ranges from 0 to 30

^c Higher scores indicate greater personal accomplishment. Total possible score ranges from 0 to 48

^d Higher scores indicate increased social environment for the scale. Total possible score range from 0 to 20

^e Higher scores indicate increased level of fear of assault. Total possible scores range from 2 to 10

^f Higher scores indicate greater level of challenging behaviour. Total possible scores range from 0 to 12

The analysis indicated that two out of the three subscales of the EssenCES had high internal consistency (Resident Cohesion and Mutual Support, $\alpha = 0.84$; Experienced Safety, $\alpha = 0.84$), which suggests that the measure has good construct validity for some of the subscales. Therapeutic hold ($\alpha = 0.56$), however, had poor internal consistency, therefore the results from this subscale need to be viewed with caution.

Correlational Analysis

It was hypothesised that burnout would be associated with levels of challenging behaviour, fear of assault and the social climate. Using Spearman's rho, a number of correlations were produced, as outlined in Table 3.

Table 3. Correlations between the subscales of the MBI, the subscales of the EssenCES, fear of assault and reported challenging behaviour using Spearman's rho

	EE ^a	DP ^b	PA ^c	Resident Cohesion & Mutual Support	Therapeutic Hold	Experienced Safety	Fear of Assault	Reported Challenging Behaviour
EE ^a	-	.337**	-.323**	-.339**	-.095	-.266*	.392**	.384**
DP ^b	-	-	-.206	-.219	-.185	-.218	.465**	.353**
PA ^c	-	-	-	.343**	.352**	.213	-.275*	-.350**
Resident Cohesion & Mutual Support	-	-	-	-	.291*	.097	-.244*	-.177
Therapeutic Hold	-	-	-	-	-	.043	-.187	-.160
Experienced Safety	-	-	-	-	-	-	-.451**	-.476**
Fear of Assault	-	-	-	-	-	-	-	.525**

Note:

Significant correlations are highlighted in bold.

*Significant at $P < 0.05$

**Significant at $P < 0.01$

^a Emotional Exhaustion

^b Depersonalisation

^c Personal Accomplishment

A number of relatively small or moderately sized correlations were found between the study variables. As expected, emotional exhaustion and depersonalisation showed a modest negative correlation with personal accomplishment, and emotional exhaustion showed a modest significant, positive correlation with depersonalisation of the MBI.

Burnout, Fear of Assault and Challenging Behaviour

Emotional exhaustion showed a significant, positive correlation with fear of assault and reported levels of challenging behaviour. Depersonalisation also showed a significant, positive correlation with fear of assault and reported levels of challenging behaviour. This suggests that an environment that is characterised by higher levels of challenging behaviour and an increased fear of assault may increase the likelihood of staff burnout occurring.

Personal accomplishment showed a significant, negative correlation with fear of assault and challenging behaviour, which suggests that experience of challenging behaviour and fear of assault reduce staffs' sense of accomplishment in their work.

Burnout and Social Climate

Emotional exhaustion showed a significant, negative correlation with resident cohesion and mutual support, and experienced safety. Depersonalisation also showed a negative, but non-significant correlation with resident cohesion and mutual support, and experienced safety. This suggests that burnout is associated with an environment that lacks safety, unity and mutual support. No relationship was found, however, between emotional exhaustion and depersonalisation, and therapeutic hold.

Although the correlation between emotional exhaustion and depersonalisation and therapeutic hold was weak, personal accomplishment showed a positive correlation with all aspects of the EssenCES. This suggests that an environment where staff feel that they

are supportive of resident's needs and has a greater level of mutual support, unity and feelings of safety fosters increased levels of feelings of accomplishment, and may be a protective factor against burnout.

Social Climate, Fear of Assault and Challenging Behaviour

Negative correlations were found between both resident cohesion and mutual support and therapeutic hold, and fear of assault and challenging behaviour. Whilst a significant, negative correlation was found between experienced safety, and fear of assault and reported levels of challenging behaviour, suggesting that a high level of fear of assault and high levels of challenging behaviour reduces a sense of feeling safe, united and supported in an environment where staff do not feel that they effectively meet the residents needs.

A significant, positive correlation was also found between fear of assault and challenging behaviour, which suggests that high levels of fear of assault are associated with increased levels of challenging behaviour.

Multiple Regression Analyses

It was also hypothesised that organisational factors (social climate) will contribute uniquely to the variance explained after both client factors (challenging behaviour) and staff cognitive factors (fear of assault) have been included in the regression equation.

To assess whether the data for the regression analysis met the assumptions of normality and linearity, and to assess for the presence of autocorrelation in the residuals of the regression analysis, a number of regression diagnostics were carried out. Visual inspection of the normal distribution histogram indicated that the distribution of data for the dependent variables, emotional exhaustion and personal accomplishment, did not significantly deviate from normality. Similarly, the normal probability plot and the plot of raw scores by predicted scores did not show evidence of significant deviation from normality in the regression residuals for both emotional exhaustion and personal accomplishment. There were, however, minor deviations from normality, as indicated by the normal distribution histogram, the normal probability plot and the plot of raw scores by predicted scores, for the dependent variable of depersonalisation. Tabachnick and Fidell (1996), however, propose that minor deviations from the norm are considered acceptable. Finally, it was found that the indices of colinearity (that is, Tolerance and Variance Inflation Factor) and autocorrelation (that is, the Durbin Watson index) for all the MBI variables (Emotional Exhaustion, Depersonalisation and Personal Accomplishment) were within acceptable levels. This data is presented in Appendix 11.

In order to establish how well the study variables predicted staff burnout a number of blocked ordinary least squares regressions were conducted using the 'enter' method. In this analysis, the independent variable, reported challenging behaviour, was entered into Block 1. Following this, the independent variable, fear of assault, was added and entered into Block 2. Finally, the three variables representing the independent variable social climate, that is, resident cohesion and mutual support, experienced safety and therapeutic

hold, were added and entered into Block 3. Three separate analyses were carried out with each variable of the MBI scales (emotional exhaustion, depersonalisation, personal accomplishment), which were inputted as the dependent variable. The results of this analysis are presented in Table 4.

Table 4. Blocked Ordinary Least Squares Regression Analysis of the Study Variables

	<u>Emotional Exhaustion</u>			<u>Depersonalisation</u>			<u>Personal Accomplishment</u>		
	<i>b</i>	<i>Std Error</i>	β	<i>b</i>	<i>Std Error</i>	β	<i>B</i>	<i>Std Error</i>	β
<u>Block 1</u>									
Reported Challenging Behaviour	1.155	.320	.398**	.616	.154	.433*	-.728	.194	-.415**
<u>Block 2</u>									
Reported Challenging Behaviour	.602	.356	.207	.351	.172	.247*	-.757	.228	-.432**
Fear of Assault	2.060	.693	.365**	.984	.334	.356**	.108	.443	.032
<u>Block 3</u>									
Reported Challenging Behaviour	.500	.365	.173	.331	.182	.233	-.676	.229	-.386*
Fear of Assault	1.744	.742	.309*	.925	.370	.334*	.344	.469	.101
Resident Cohesion & Mutual Support	-.624	.277	-.259*	-.094	.138	-.080	.243	.177	.165
Experienced Safety	-.119	.296	-.050	-.021	.147	-.018	.117	.193	.080
Therapeutic Hold	.284	.409	.078	-.037	.203	-.021	.418	.257	.189

Note:

Significant correlations highlighted in bold.

*Significant at $P < 0.05$

**Significant at $P < 0.01$

As can be seen from Table 4, fear of assault was a significant positive predictor for both emotional exhaustion and depersonalisation, which suggests that greater fear of

assault predicts an increased level of emotional exhaustion and depersonalisation. The level of reported challenging behaviour was also a significant positive predictor of depersonalisation, which suggests that the presence of greater levels of challenging behaviour predicts an increased level of depersonalisation, but not significantly for emotional exhaustion. The level of reported challenging behaviour, however, was a significant negative predictor of personal accomplishment, which suggests that an increased level of challenging behaviour predicts a reduced sense of personal accomplishment. Resident cohesion and mutual support was also a significant negative predictor of emotional exhaustion, which suggests that an environment that has a greater sense of unity and support predicts a reduced level of emotional exhaustion.

In terms of predicted variance, levels of reported challenging behaviour accounted for approximately 16% of the variance in emotional exhaustion ($R = 0.398$; $F_{1,69} = 13.004$; $p < 0.01$). When fear of assault was added to this model there was an increase of approximately 10% in the explained variance in emotional exhaustion ($R^2_{\text{change}} = 0.097$; $F_{1,68} = 8.838$; $p < 0.01$). Finally, when the three variables representing social climate were added to this model, no significant increase in the explained variance in emotional exhaustion ($R^2_{\text{change}} = 0.054$; $F_{1,65} = 1.709$; $p = 0.174$) was found. Hence, the model described in Block 2, that is, levels of reported challenging behaviour and fear of assault, provides the best compromise between quantitative parsimony and explanatory power for predicting emotional exhaustion.

A similar pattern emerged for depersonalisation, as levels of reported challenging behaviour accounted for approximately 19% of the variance in depersonalisation ($R = 0.433$; $F_{1,69} = 15.945$; $p < 0.01$). When fear of assault was added to this model there was an increase of approximately 9% in the explained variance in depersonalisation ($R^2_{\text{change}} = 0.092$; $F_{1,68} = 8.693$; $p < 0.01$). Finally, when the three variables representing social climate were added to this model no significant increase in the explained variance in depersonalisation ($R^2_{\text{change}} = 0.008$; $F_{1,68} = 0.232$; $p = 0.874$) was found. Hence, the model described in Block 2, that is, levels of reported challenging behaviour and fear of assault, provides the best compromise between quantitative parsimony and explanatory power for predicting depersonalisation.

A different pattern emerged for personal accomplishment, however, as levels of reported challenging behaviour accounted for approximately 17% of the variance in personal accomplishment ($R = 0.415$; $F_{1,68} = 14.169$; $p < 0.01$). When fear of assault was added to this model there was no significant increase found in the explained variance in personal accomplishment ($R^2_{\text{change}} = 0.001$; $F_{1,67} = 0.059$; $p = 0.808$). Finally, when the three variables representing social climate were added to this model, although this model approached significance, no significant increase was found in the explained variance in personal accomplishment ($R^2_{\text{change}} = 0.084$; $F_{1,64} = 2.402$; $p = 0.076$). Hence, the model described in Block 1, that is, levels of reported challenging behaviour, provides the best compromise between quantitative parsimony and explanatory power for predicting personal accomplishment.

Discussion

The aims of the present study were to establish whether characteristics related to clients, staff or the organisation are correlated with staff burnout and whether organisational factors (social climate) contributed uniquely to this relationship. The most consistent finding throughout the study was the key role of challenging behaviour and fear of assault in explaining the variance in burnout in staff who work with people with intellectual disabilities.

High levels of reported challenging behaviour were correlated with increased emotional exhaustion and depersonalisation. The results therefore supported the first hypothesis that greater levels of challenging behaviour will be associated with an increased level of staff burnout. These findings are consistent with previous research (e.g. Chavira et al, 2000; Hastings, 1995; Hatton, Brown, Caine, & Emerson, 1995; Jenkins, et al., 1997; Male & May, 1997; Rose, 1999) which suggests that challenging behaviour is a stressful aspect of working with people intellectual disabilities. High levels of fear of assault were also found to be correlated with increased emotional exhaustion and depersonalisation. The results therefore supported the second hypothesis that increased levels of fear of assault will be associated with an increased level of staff burnout. Increased levels of fear of assault were also found to be correlated with greater levels of reported challenging behaviour. These findings contrast with previous research (Murray et al., 1999; Howard et al., 2009) which suggests that greater exposure to challenging behaviour did not correlate with a greater fear of assault or increased levels of staff burnout. This does, however, support the findings from Rose and Cleary's study where it was found that

greater exposure to challenging behaviour was associated with an increase in fear of assault. This discrepancy may be related to the fact that the same fear of assault measure (Leather et al, 1997) from Rose and Cleary's study was used in the present study, whereas the other studies used different measures to assess for fear of assault. Challenging behaviour and fear of assault were also correlated with a reduced sense of personal accomplishment. It is suggested that staff may not gain a sense of job satisfaction when they are confronted with challenging behaviour because they do not feel as though they are managing the residents' behaviour effectively enough, due to having a fear of being assaulted, which may affect their confidence and thus, their level of job satisfaction.

Low levels of emotional exhaustion and depersonalisation were correlated with increased levels of resident cohesion and mutual support, and experienced safety. However, there was no relationship between burnout and therapeutic hold. The results therefore partially supported the third hypothesis that a more positive social climate is associated with a reduced level of staff burnout. This finding supports previous research (Beech & Fordham, 1997; Lucas, Atwood & Hagan, 1993; Jones, Janman, Payne & Rick, 1987) which suggests that cohesion and mutual support are key ingredients to protect against burnout in other staff groups. Although no relationship was found with the burnout variables and therapeutic hold, a stronger relationship was found between therapeutic hold and personal accomplishment. This suggests that when staff feel that they are effectively meeting the needs of the residents, they gain a greater sense of accomplishment in their work. All aspects of the social climate were negatively

correlated with fear of assault and challenging behaviour, although some of these relationships were relatively weak. This could suggest that the presence of fear of assault and exposure to high levels of challenging behaviour negatively impacts upon the social climate. However, it may be that the variables being assessed in the EssenCES overlap with the concepts within the measures of challenging behaviour and fear of assault, as the measure asks the participant to rate aspects related to staff and resident characteristics. One of the stronger relationships between these variables was found between fear of assault and challenging behaviour with the experienced safety subscale on the EssenCES. This suggests that having a fear of being assaulted in an environment with high levels of challenging behaviour creates a climate of feeling unsafe in the workplace. It could, however, also be suggested that the conceptual basis for fear of assault and ‘experienced safety’ are similar. The limitations related to this will be discussed in more detail later.

It was predicted that social climate would contribute uniquely to the variance explained after both challenging behaviour and fear of assault were included in the regression equation. The results indicated, however, that social climate failed to significantly explain more variance than challenging behaviour and fear of assault combined. These findings, therefore, partially support the fourth hypothesis, but does not agree with the findings that organisational characteristics account for the largest amount of variance in staff burnout when compared to client related or staff cognitive variables (e.g. Hatton et al., 1999b; 2001). The findings do, however, offer support for Rose’s (1995, 1997) model for understanding staff stress, where it is proposed that client and staff factors are the most important influences on staff stress, whereas organisational factors are at a greater

distance and therefore have less influence on staff stress. The staff cognitive variable of fear of assault also appears to play an important role in predicting staff burnout. It could be suggested that staff cognitive variables are likely to have the greatest influence because they are contained within the individual and are at the core of Rose's (1995, 1997) proposed framework.

The results of the present study suggest that the sample have a low to average level of burnout (Maslach, Jackson & Leiter, 1996). The mean scores of MBI in the present study were relatively comparable to the mean MBI scores (emotional exhaustion = 17.4; depersonalisation = 5.0; personal accomplishment = 33.8) of studies included in a systematic review of studies that focussed upon staff burnout within services for people with intellectual disabilities (Skirrow & Hatton, 2007). In terms of the subscales for the EssenCES, the validation and normative data study (Howells et al., 2009) carried out in the UK also has relatively comparable means (patient cohesion and mutual support = 8.05; therapeutic hold = 14.17; experienced safety = 8.53) to the present study. For the fear of assault measure, Rose and Cleary reported a mean score of 6.2 for the service with a higher level of challenging behaviour and 3.7 for the service with the lower level of challenging behaviour, which suggests that the level of fear of assault for the overall sample in the present study is closer to the sample that had higher levels of challenging behaviour in Rose and Cleary's study. In terms of reported challenging behaviour, Howard et al. reported a mean score of 6.87 for the medium-secure service and 2.05 for the community based service, which suggests that the levels of challenging behaviour for the present study is closer to the combined means of the scores from the samples in the

Howard et al study. Overall, the scores of each of the subscales are relatively comparable to other studies that have been carried out with health and/or social care staff or staff who work with people with intellectual disabilities.

Methodological Limitations and Implications for Future Research

One of the main limitations of carrying out a cross-sectional study is that the data captures information retrospectively at a single point in time. Furthermore, although a number of correlational relationships were found between the study variables, this does not necessarily imply the causal direction, which makes it difficult to ascertain how the variables are related. Characteristics of an organisation, in particular, are dynamic and can change over time dependent upon factors, such as, service changes and implementation of new models of care or policies. Employing a longitudinal design by collecting data at two separate points in time may have captured the information more effectively. Common to other similar studies, the data relies upon self-reports from staff, which may introduce bias in participants responses. In order to reduce bias in the reported levels of challenging behaviour in particular, it would have been helpful to obtain information regarding the number of reported incidents of actual levels of challenging behaviour during the data collection period for each organisation in order to assess for any discrepancies and to confirm the reliability of the data provided.

The present study hypothesised that there were direct causal relationships between the independent variables of reported challenging behaviour, fear of assault and organisational climate, and the dependent variable of burnout. It could be suggested,

however, that some of the independent variables may be acting as a third explanatory variable in the form of a mediator variable. Baron and Kenny (1986) propose that a mediator is a variable that explains the relationship between the independent and dependent variable. More specifically, the mediator variable is the means through which the independent variable explains the dependent variable (Frazier, Tix & Barron, 2004), for example, fear of assault and/or organisational climate may be mediator variables that explain the relationship between reported challenging behaviour and burnout. Based upon this example, this means that a mediational model would hypothesise that reported challenging behaviour (independent variable) impacts upon fear of assault and/or organisational climate (mediator variable) which in turn causes burnout (dependent variable). A commonly used test for mediation analysis is the Sobel test (Sobel, 1982) or alternatively, if a more sophisticated model was used and the study had a greater number of participants, another method of analysis that could be applied is path analysis. The advantage of carrying out analyses such as these is that they would provide a greater understanding of how the variables interact with one another and establishes the nature of the relationship of potential mediator variables between the independent and dependent variables (MacKinnon, 2008). As there has been a lack of research within this area to address these issues, the present study was relatively exploratory in nature and thus, potential indirect causal variables, such as, mediator variables were not explored. It is proposed that future research could address this issue.

Another limitation of this study is that the sample size was relatively small. When performing regression analyses on a smaller sample size, with a number of predictor

variables, the chance of obtaining Type 1 errors increases. Furthermore, one of the assumptions of regression is that the variables are normally distributed, but some of the variables were not normally distributed in the present study. A larger sample size may have increased the likelihood that a normal distribution would form and would have improved the generalisability of the findings. Related to this, the present study also had a low response rate. The difficulty with having a response rate of less than 25% is that non-respondents may have responded differently and may have significantly influenced the overall outcome. It could be suggested that the staff who did not respond may have been experiencing high levels of burnout and felt too stressed to complete the questionnaire, or alternatively they may have felt that burnout was not an issue for them and therefore declined from taking part in the study. Either of these possibilities may have had an impact upon the overall findings of the present study.

The sample was relatively heterogeneous as there was a mixture of types of organisations including, low secure hospitals and community based residential homes, as well as a mixture of staff groups, including support workers, staff nurses and managers. Previous research (e.g. Cleary & Rose, 2007; Howard, Rose & Levenson, 2009) has compared the differences between different types of organisations (e.g. medium secure vs. community based residential homes) and found contrasting burnout levels within each organisation. Furthermore, Ito, Kurita and Shiiya (1999) found that support workers had significantly higher levels of burnout than managerial level staff in services for people with intellectual disabilities. These findings suggest that there may be differences in levels of staff burnout dependent upon the type of organisation and staff group. Future research

could take this into account in order to minimise the effects of these potential confounding variables.

As mentioned earlier, it could be suggested that the conceptual framework of the fear of assault measure and the ‘experienced safety’ subscale of the EssenCES are relatively similar. Based upon Lazarus’s definition of the fear response, it is suggested that it is the appraisal of an event, as the Leather et al. scale measures, which affects the likelihood of a situation being threatening and causes the stress reaction. Meanwhile, the ‘experienced safety’ subscale of the EssenCES is described as being related to the degree of perceived conflict, and the threat of violence and aggression. The definitions outlined here suggest that these variables are not conceptually distinct, suggesting that there is considerable overlap in the two measures. Furthermore, it could be argued that all of the subscales of the EssenCES ask questions that relate to the resident. Based upon Rose’s model of staff stress, it could be suggested that the dimensions of the social climate leak into the layers of resident related characteristics. This creates a confound within the results, which makes it difficult to judge whether organisational variables have been measured effectively or whether the EssenCES is actually measuring an interaction between staff and residents, rather than an interaction between the staff and the environment. The EssenCES does, however, assess a broader range of items than the fear of assault and challenging behaviour measures, which suggests that it may be capturing a greater level of information in relation to staff and resident characteristics.

Howard et al. (2009) found that self-efficacy moderated the relationship between fear of assault and staff burnout, which suggests that staff who had a greater exposure of challenging behaviour felt better able to manage challenging behaviour. A relatively low number (19.5%) of participants in the present study reported that they received training in managing challenging behaviour, which may suggest that the majority of participants did not feel confident in dealing with challenging behaviour. It would be interesting to investigate this relationship further, as self-efficacy was not measured in the present study so it was not possible to ascertain whether this moderated the relationship with challenging behaviour, fear of assault and staff burnout.

Due to potential variation amongst the organisations included in the study in relation to factors, such as, organisational structure, models of care and staffing levels, it is possible that there would be differences in terms of the social climate. It would be interesting to investigate whether there were differences in the social climate of the organisations in the present study and whether this had an impact upon staff burnout levels. This would have been difficult in the present study due to the sample size from some organisations being quite small (samples from each organisation ranged from 2 participants to 24 participants).

It would also be useful to include residents' views on how they experience the social climate and investigate whether this contrasts with staff views. For a more in-depth analysis of the link between staff burnout and social climate, it would be interesting to invite residents to also complete an appropriate stress or burnout questionnaire, such as,

the Glasgow Depression Scale for People with a Learning Disability (GDS-LD; Cuthill, Espie & Cooper, 2003) or the modified version of the CORE-OM for people with intellectual disabilities (Marshall & Willoughby-Booth, 2007), to assess for the possibility of transference and counter-transference between staff and residents.

Clinical Implications

The most consistent finding throughout this study is the correlation between burnout with fear of assault and challenging behaviour. It could be suggested that organisational variables related to the management of care of people with intellectual disabilities, such as, care planning, conflict management and risk assessments, interact in the relationship between burnout, challenging behaviour and fear of assault. With increased training in these areas, staff may feel more supported and competent in dealing with situations where challenging behaviour may arise. The aim would be to ensure that staff feel better equipped at dealing with challenging behaviour to prevent a situation from escalating and to encourage staff to think of ways to better manage the risks posed by challenging behaviour either individually or as a group. In turn, as staff feel more confident in their care management skills it would be hoped that the quality of service being offered to residents would improve.

The findings suggest that in order to protect against burnout it may be helpful to introduce activities that encourage a more positive social climate. It would be important to help staff feel a greater sense of unity by supporting each other, as well as providing an opportunity for staff to reflect upon their experiences of dealing with challenging

behaviour where it may have impinged upon their feelings of safety. One way of doing this could be to arrange regular supervision sessions for staff, where a supportive and cohesive environment is encouraged.

It has been found that mindfulness based interventions significantly enhance the ability of staff to manage challenging behaviour in a service for people with intellectual disabilities (Singh et al., 2006). Interventions could also focus upon working on staffs' cognitive appraisal of fear in relation to assault, by employing a cognitive-behavioural approach, as this has been found to be effective in reducing staff stress in a service for people with intellectual disabilities (Gardner, Rose, Mason, Tyler & Cushway, 2005). Implementing these strategies and developing risk management strategies or guidelines with staff could be a step towards reducing both staff stress and challenging behaviour in services for people with intellectual disabilities.

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Appendix 1:
Public Domain Briefing Paper

C. Public Domain Briefing Paper


**An investigation into the relationship between social climate, fear of assault,
challenging behaviour and burnout in staff who work with people with intellectual
disabilities**

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Background

Over recent years, there has been an increasing interest in staff who work within services for people with intellectual disabilities. One area of research that has begun to dominate this research field is related to staff distress. A number of studies have been carried out to investigate the factors that impact upon staff burnout in services for people with intellectual disabilities. It would seem that the research generally falls into three categories including staff related factors, resident related factors and factors related to the organisation. In terms of which of these factors most influences staff burnout, there are mixed findings, as some studies (e.g. Hastings, 1995) suggest that resident related factors, such as, challenging behaviour are the most influential factor in determining levels of staff burnout, whereas other studies (e.g. Hatton et al., 1999) suggest that when organisational factors, such as, environment, are considered alongside resident related factors, that it is actually organisational factors that are most influential in determining levels of staff burnout.

Literature Review

As research has suggested that organisational factors are considered more influential in determining staff burnout when considered against staff or resident related factors, a literature review was carried out to assess what factors were important in terms of the organisation and its environment. Twenty-one studies were identified and reviewed. The earlier studies in the review tended to focus upon the influences of change that have occurred within the socio-political context and service provision for people with intellectual disabilities, and focussed upon the effects of deinstitutionalisation upon staff

burnout. Later studies tended to focus upon factors related to work-stress theories of staff burnout. The findings of these studies suggested that an organisational climate that had a better 'person-environment' fit in terms of decreased levels of role stress, with a level of support that met the needs of the staff in terms of the demands placed upon them promotes greater job satisfaction and reduced burnout. There appears to be a lack of studies which focussed upon the social and/or therapeutic environment within services for people with intellectual disabilities. It was suggested that future research could aim to focus more upon the social or therapeutic aspects of the environment within services for people with intellectual disabilities to address this area of research which appears to have been overlooked.

Aims

One aim of this study is to investigate whether characteristics related to clients, staff or the organisation are associated to burnout in staff who work within services for people with an intellectual disability. A second aim is to ascertain which of these variables influences staff burnout most significantly.

Method

A questionnaire based study was carried out with 77 staff who worked in residential services for people with intellectual disabilities across 3 different organisations, including NHS, independent and social service based homes. A questionnaire was distributed to staff and included a measures of burnout (MBI; Maslach & Jackson, 1986), fear of

assault (Leather et al, 1997), levels of challenging behaviour (Winstanley & Whittington, 2002) and social climate (EssenCES; Schalast, Redies, Collins, Stacey & Howells, 2008).

Main Findings

- An increased exposure to challenging behaviour was likely to be related to greater staff burnout.
- An increased fear of assault was likely to be related to greater staff burnout.
- A more positive social climate, characterised by a greater level of unity, support and feeling of safety was likely to be related to a reduction staff burnout.

Limitations

A number of limitations within the study were highlighted and included the low response rate and the statistical analyses that were used did not establish how or which direction the study variables related. Finally, there appeared to be some overlap between the concepts within the staff related measure of fear of assault and the social climate measure, which meant that it was difficult to know whether the social climate measure was actually measuring organisational factors or the relationship between staff and residents.

Clinical Implications

Based upon the findings of this study, it could be suggested that staff training could be used to help staff feel more confident in dealing with challenging behaviour. The training could incorporate risk management and conflict management techniques to ensure that

staff feel that they are capable of being able to de-escalate a situation when it arises. Also, to encourage a greater sense of unity, safety and support within the environment, the staff could be encouraged to attend regular reflective practice or supervision groups, where staff can discuss their concerns in a non-judgemental and supportive environment.

Conclusions

The most consistent finding throughout the study was the important role that exposure to high levels of challenging behaviour and increased fear of assault have in the development of staff burnout. This could have implications for further staff training in terms of care planning and risk management. The findings also suggested that in order to protect against burnout, a positive social climate that is characterised by a safe, united and supportive environment should be encouraged.

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Appendix 2:
**Instructions to Authors for Submission to the Journal of
Applied Research in Intellectual Disabilities**

Appendix 3:

List of Boolean search terms used in the literature review

Search Terms and Strategy for Literature Review

‘Intellectual Disabilities’
‘intellectual disabilit\$’
OR
‘learning disabilit\$’
OR
‘mental\$ handicap\$’
OR
‘mental retardation’
OR
‘developmental disability\$’
OR
‘delayed development’

‘Staff Burnout’
‘occupational stress’
OR
‘burnout’
OR
‘job strain’

= 44 articles

‘Environment’
‘organizational climate’
OR
‘organisational climate’
OR
‘organisational culture’
OR
‘organizational culture’
OR
‘social climate’
OR
‘working conditions’
OR
‘facility environment’
OR
‘therapeutic environment’
OR
(work\$ or therap\$ or hospital\$ or organisation\$ or organization\$ or facility or facilities or home\$) adj3
(environment\$ or atmosphere\$ or climate\$ or culture\$ or condition\$ or structure\$ or support\$)

Databases:

EMBASE

Ovid Medline (R)

PsychArticles and Journals @OVID

PsycINFO

Journals @OVID Full Text

Limits:

Human

English language

1990 – Current

Appendix 4:

**Table of summary of articles included in the literature review
(in date order)**

<i>Author(s)</i>	<i>Number/Type of Participants</i>	<i>Measures Used</i>	<i>Main Findings</i>
Howard, Rose & Levenson (2009)	86 direct care staff workers from three homes in two service settings (community, low exposure to challenging behaviour, N = 41, high exposure to challenging behaviour, medium secure N = 45)	<p><i>Burnout:</i> Maslach Burnout Inventory (MBI Maslach and Jackson, 1981)</p> <p><i>Staff support:</i> The Staff Support and Satisfaction Questionnaire (Version 2) (Harris & Rose, 2002)</p> <p><i>Self-efficacy:</i> Difficult behaviour self-efficacy scale.</p> <p><i>Fear of Violence:</i> Rose & Cleary (2007) adapted measure from Van der Wurff, Stringer, & Timmer, 's (1988) measure.</p> <p><i>Actual Level of Violence measure:</i> Adapted from definitions by Winstanley & Whittington (2002) definition.</p>	<p>The medium-secure setting had significantly higher incidents of violence compared to the two community based settings.</p> <p>Staff from the medium-secure setting reported significantly lower levels of fear of violence and higher self efficacy than the staff in the community based settings.</p> <p>No significant difference in burnout between groups.</p>
Lin, Lee, Yen, Loh, Hsu, Wu & Chu (2009)	1243 workers (mostly front-line workers, such as, teaching and nursery workers – 37.8%)	<p>Burnout and stress : Authors own questionnaire</p> <p>Chinese version of Job Content Questionnaire (JCQ; Cheng, Luh & Goh, 2003) and Effort Reward Imbalance Questionnaire (ERI; Cheng, Luh & Goh, 2003)</p>	<p>Very unclear.</p> <p>Low levels of support and reward, and high levels of perceived job stress and effort were associated with high levels of strain</p>
Deveraux, Hastings, Noone, Firth & Totsika (2009)	<p><i>First data point:</i> 96 support staff (qualified nurses and health care assistants) from an NHS residential hospital site and a small community based unit for people with learning disabilities.</p> <p><i>Second data point:</i> A sub-sample of 38 took part in a follow up 22 months later</p>	<p><i>Burnout:</i> Maslach Burnout Inventory (MBI)</p> <p><i>Perceived demands:</i> Staff Stressor Questionnaire (SSQ) (Hatton et al, 1999)</p> <p><i>Staff coping:</i> Shortened Ways of Coping Questionnaire (Hatton & Emerson, 1995) developed from Folkman and Lazarus (1985) Ways of Coping Questionnaire.</p>	<p>Total SSQ (perceived demand) scores were positive predictors of emotional exhaustion (EE) on MBI. Practical coping was a positive predictor of personal accomplishment (PA).</p> <p>No significant main effect associations between support and EE or PA.</p> <p>Support functioned differently depending upon perceived work demand..</p>

		<p><i>Staff support:</i> Staff Support and Satisfaction Questionnaire (Harris & Rose, 2002)</p>	<p>Longitudinal analysis: Found that perceived work demands, coping strategies, staff support and EE were relatively stable</p>
<p>Agervold & Andersen (2006)</p>	<p>228 staff (socio-educational teachers?) working in 6 day-care institutions for people with an intellectual disability</p> <p>Four institutions with low incidence of violence. Two institutions with higher incidence of violence.</p>	<p><i>Burnout and Psychosocial Work Environment:</i> Psychosocial Work Environment and Stress Questionnaire (PWSQ) (Agervold, 1998a; 1998b), a 94-item standardised questionnaire.</p> <p>Psychosocial work environment scales = Job Demands, Workload, Job Control, Influence, Management Style, Role Clarity, Social Contact, Social Climate, Personal Development, and Work Centrality.</p> <p>Burnout scales = Psychological Fatigue/Burnout, Psychological Stress and Psychosomatic Symptoms.</p> <p><i>Work Related Violence:</i> Authors own measure</p>	<p>Half of the employees indicated that they suffered from violence in the course of the previous year.</p> <p>Significant relationship between rising pressure of work or requirements, and the incidence of acts of violence.</p> <p>Increasing role ambiguity relates to higher incidence of violence.</p> <p>Clear significant ($p < .05$) relationship between higher incidence of violence and burnout/stress reaction.</p> <p>Two institutions with higher incidence of violence characterised by higher pressures of work, greater demands on staff, less role clarity. But more control and influence over their work in these settings.</p>
<p>Hatton et al (2001)</p>	<p>450 staff from mainly (3 out of 5) NHS settings, but varied in geographical location and nature of services provided. (Same sample as Hatton et al (1999a, 1999b) studies.</p>	<p>Scales used to assess:</p> <ol style="list-style-type: none"> 1. Demographics 2. Actual and Ideal Culture (O'Reilly et al, 1991) 3. Social Desirability Scale (Strahan & Gerbasi, 1972) 4. Commitment (Penley & Gould, 1988) 5. Coping strategies (Hatton & Emerson, 1995) 6. Community Services Orientation (Allen et al., 1990) 7. General Distress – GHQ-12 (Goldberg, 1978) 8. Job strain and Work Satisfaction (Borrill et al, 1996) 9. Sick leave 10. Intention to leave 11. Job search behaviour 	<p>Factors indirectly associated with intended turnover and job search behaviour included alienative commitment to the organisation, lack of staff support and role ambiguity.</p>

<p>Boumans & Van den Berg (2000)</p>	<p>135 direct care workers (experimental group)</p> <p>113 direct care workers (control group)</p> <p>Heterogeneous sample in both control and experimental groups (traditional hospital settings, eg inpatient units and more community based settings, such as, independent living)</p>	<p><i>Burnout:</i> Maslach Burnout Inventory (MBI)</p> <p><i>Job satisfaction:</i> 'Job satisfaction scale' (Boumans,1990; Landeweerd, Boumans & Nissen,1996)</p>	<p>The experimental group perceived their tasks as having greater clarity. No differences in autonomy.</p> <p>The experimental group indicated a greater level of satisfaction with management.</p> <p>No differences in burnout levels between groups.</p> <p>Trend towards greater job satisfaction in experimental group.</p>
<p>Ito, Kurita & Shiiya (1999)</p>	<p>3, 774 staff from social welfare facilities for people with mental retardation, including: facility directors (158), middle managers (753), direct care staff (inc nurses, counsellors, teachers, therapists -2,277) and indirect care staff (inc dieticians and admin 586)</p>	<p><i>Burnout:</i> Japanese version of Pines', Aronson & Kafry (1981) Burnout Scale (Inaoka, Matsuno & Miyasato, 1984; Pines et al., 1981)</p> <p><i>Supervisor support:</i> Authors own measure</p>	<p>Direct-care workers experience a significantly greater level of burnout than managerial or indirect care workers.</p> <p>Supervisor support was significantly associated with lower burnout scores for all 3 groups of people (direct, managerial, indirect)</p>
<p>Hatton et al (1999a)</p>	<p>450 staff from mainly (3 out of 5) NHS settings, but varied in geographical location and nature of services provided.</p>	<p>Scales used to assess:</p> <ol style="list-style-type: none"> 1. Demographics 2. Actual and Ideal Culture (O'Reilly et al, 1991) 3. Social Desirability Scale (Strahan & Gerbasi, 1972) 4. Commitment (Penley & Gould, 1988) 5. Coping strategies (Hatton & Emerson, 1995) 6. Community Services Orientation (Allen et al., 1990) 7. General Distress – GHQ-12 (Goldberg, 1978) 8. Job strain and Work Satisfaction (Borrill et al, 1996) 9. Sick leave 10. Intention to leave 11. Job search behaviour 	<p>Role ambiguity was directly associated with general distress and job strain.</p> <p>Lack of staff support also associated with job strain.</p> <p>Support from supervisors and colleagues and influence over work decisions were associated with work satisfaction.</p>

<p>Hatton et al (1999b)</p>	<p>450 staff from mainly (3 out of 5) NHS settings, but varied in geographical location and nature of services provided.</p>	<p>Scales used to assess:</p> <ol style="list-style-type: none"> 1. Demographics 2. Actual and Ideal Culture (O'Reilly et al, 1991) 3. Social Desirability Scale (Strahan & Gerbasi, 1972) 4. Commitment (Penley & Gould, 1988) 5. Coping strategies (Hatton & Emerson, 1995) 6. Community Services Orientation (Allen et al., 1990) 7. General Distress – GHQ-12 (Goldberg, 1978) 8. Job strain and Work Satisfaction (Borrill et al, 1996) 9. Sick leave 10. Intention to leave 11. Job search behaviour 	<p>Staff rated real organisational culture to be generally high in achievement orientation and fostering social relationships, and generally low in managing conflict and providing rewards for staff.</p> <p>Staff rated ideal culture to be high in rewarding staff, being tolerant/staff orientated and fostering social relationships.</p> <p>Higher levels of general stress, job strain and intention to leave was strongly associated with poorer person-organisation fit on some organisational culture dimensions, such as, tolerant/staff oriented, achievement oriented and rewarding staff. Higher levels of work satisfaction were strongly associated with better person-organisation fit all 9 dimensions of culture.</p>
<p>Blumenthal, Lavender & Hewson (1998)</p>	<p>Eleven group homes for people with intellectual disabilities (six were NHS trust and five were from a charitable organisation).</p> <p>101 nursing assistants or qualified nursing staff (50 = charitable organisation, 51 = NHS trust)</p>	<p><i>Burnout:</i> Maslach Burnout Inventory (MBI)</p> <p><i>Role clarity:</i> Based upon Handy's (1976) concept of role clarity</p> <p><i>Perception of Organisation:</i> Authors own measure</p>	<p>Significant differences were found in burnout levels, with NHS staff scoring higher on EE. No significant differences between services on depersonalisation (DP) and PA.</p> <p>Four items on role clarity correlated significantly with EE and two items with DP. All five items on role clarity did not correlate with PA.</p>
<p>Chung & Corbett (1998)</p>	<p>Staff from hospital based bungalows (newly built for people with challenging behaviour, management applying 'new model of care' – key worker system, lots of paperwork. Staff having to do all of domestic work, whilst trying to get residents involved also, staff:client ratio – 2:1).</p>	<p><i>Burnout:</i> Maslach Burnout Inventory (MBI)</p> <p><i>Challenging behaviours:</i> Aberrant Behaviour Checklist (Aman et al., 1985)</p> <p>Staff Questionnaire for demographics and satisfaction at work</p>	<p>Hospital based staff reporting high levels of admin work and difficulties with hierarchical structure that was getting in the way of them caring for the clients directly.</p> <p>T-tests: Hospital based staff had significantly higher levels of EE (M = 26.51, SD</p>

	Staff from community units (residential and day care for people with CB, key worker system also, staff:client ratio – 1:4.5)		<p>= 12.53) and DP (M = 7.12 SD = 7.54) than community staff (EE = 12.37, DP = 2.25). Levels of PA similar across both groups.</p> <p>Hospital based staff: Lack of support - staff feeling the need for more supervisor support was positively correlated with support from management in hospital based group.</p>
Dyer & Quine (1998)	80 direct care staff in the learning disability service of a local community NHS trust.	<p><i>Job satisfaction:</i> Allen et al's (1990) job satisfaction scale and 3 items from Warr et al's (1979) scale of job satisfaction</p> <p><i>Supports and constraints and Demands of the job:</i> Rizzo et al (1970) role conflict and role ambiguity scales, and items adapted from Rose (1995) scale.</p> <p><i>Burnout:</i> Authors included their own scale to measure burnout that was developed from the MBI, Roberts (1986) signs and symptoms of burnout list, and Firth and Myers (1985) common reactions to burnout list.</p>	<p>Three main factors emerged from the principal components analysis – Resident Characteristics (explained 25.2% of the variance), Non-participation in Decision-Making (15.4% of the variance) and Role Overload (13.3% of the variance).</p> <p>Perceptions of role conflict and ambiguity were high.</p> <p>Most workers felt supported.</p> <p>Burnout was positively correlated with resident characteristics, role ambiguity and role conflict, and negatively correlated with support and job satisfaction.</p>
Shaddock, Hill & van Limbeek (1998)	173 direct care workers in government and non-government residential services (mainly community based settings)	<p><i>Burnout:</i> Maslach Burnout Inventory (MBI)</p> <p><i>Other variables (social support, decision making, etc):</i> Authors own measure</p>	<p>Overall, found a moderate level of burnout within staff.</p> <p>Emotional support (via personal relationships, e.g. family) = lower burnout</p> <p>More involvement in decision making = lower burnout</p>
Gil-monte & Piero (1997)	95 staff within institutions for people with intellectual disabilities. Most were direct	<p><i>Self-confidence:</i> Adapted from Trait Sport-Confidence Inventory</p>	<p>Supervisor support had a significant relationship with EE and PA, but not DP.</p>

	care workers, but also included psychologists teachers and social workers.	(Vealey, 1986), word “athlete” replaced with “workmate” <i>Role conflict, Ambiguity and Social support:</i> Occupational Stress Questionnaire (OSQ) (Caplan et al, 1975) <i>Burnout:</i> MBI	Colleague support had a significant relationship with EE, DP and PA. Role conflict and ambiguity were significantly and positively associated to EE and DP, and negatively associated with PA.
Pelletier, Coutu & Lamonde (1995)	609 direct care staff for either juvenile delinquents (384 participants) or mental retardation (225 participants) in various social agencies in Quebec. They were selected from a sample of 910 staff that took part in a larger study of supervision and burnout in helping professions.	<i>Burnout:</i> MBI <i>Sources of Stress:</i> Items taken from adapted version of Teacher Stress Inventory (Fimian & Fastenau, 1990), each item describes a characteristic of the work environment that has to be rated in terms of the intensity of the stress it generates (factor analyses yielded 3 scales – emotional stress related to work effectiveness, stress related to client characteristics and administrative work. <i>Supervisor and co-worker support:</i> Authors own measure	More PA in institutional setting than community setting. Less DP in institutional setting than community. Staff in institutional setting (ID) reported significantly higher levels of feeling slightly more controlled by supervisor in support question (higher perception of being controlled by supervisor). Staff in ID settings had lower levels support from co-worker and supervisors, and satisfaction with supervision, than staff from juvenile delinquency service. Administrative stress (paperwork, red tape, etc) is higher only for staff in community based facilities for people with ID.
Aitken and Schloss (1994)	150 (97 direct care workers; 24 therapy staff; 11 managerial staff). Institution vs community.	<i>Stress:</i> Occupational Stress Questionnaire (OSQ) (Caplan et al, 1975) Measures role conflict and ambiguity (Organisational Questionnaire, ORQ), as well as levels of stress relation to organisational (ORQ) and psychological variables (Psychological Questionnaire, PSQ), and a	Role conflict is a stronger predictor of burnout than role clarity. Role conflict was most closely related to burnout, particularly EE and DP on the MBI. DCW’s in institutional environment had higher scores on DP and EE of MBI, and higher scores on ORQ and lower scores PRQ on OSI. Institutional staff had

		<p>measure of individual coping skills (Personal Resources Questionnaire, PRQ).</p> <p><i>Burnout:</i> MBI</p>	<p>higher levels of role overload, role ambiguity, conflicting role demands, and stress due to physical environment.</p>
Harvey & Burns (1994)	<p>Data collected over 6 monthly intervals. 12 – 18 direct care workers (qualified and unqualified), but 11 ‘core staff’ over the data collection period.</p> <p>The week of the data collection of the 3rd month coincided with the move.</p>	<p><i>Burnout:</i> MBI</p> <p>Absenteeism: Total number of days lost due to sickness was calculated each month.</p>	<p>Results indicate the transitional period was a particularly stressful time for staff.</p> <p>Significant increases in EE and DP were found during the transition (as the move approached and during the move itself). Non-significant decrease in PA also found.</p>
Gardner & Rose (1994)	18 day centre staff	<p>Questionnaire designed based upon initial interviews and discussion with staff.</p> <p><i>Measure of strain:</i> Thoughts and Feelings Index (Fletcher et al 1991).</p>	<p>High levels of stress found in staff.</p> <p>Main sources of stress: -Organisational structure -Workload/type -Home/work interface.</p>
Hatton & Emerson (1993)	64 direct care staff members in a residential educational facility for young adults with severe mental retardation.	<p>Predictor variables (based on measure by Allen et al, 1990) including:</p> <ul style="list-style-type: none"> - Practical and emotional support from supervisor and peers - Perception of work roles (conflict and ambiguity) <p>Outcome measures, including:</p> <ul style="list-style-type: none"> - Staff stress (Malaise Inventory) - Overall job satisfaction - Overall satisfaction with life - Propensity to leave 	<p>Direct predictors of overall job satisfaction included: High levels of support from supervisors and high levels of job feedback.</p> <p>Indirect predictors of propensity to leave, included: A perceived lack of participation in decision making, lack of variety, lack of feedback and support from supervisors.</p> <p>Direct predictors of high stress included, High levels of role conflict and lack of job variety. A high level of role conflict was itself predicted by a low level of practical support from supervisors.</p>
Rose (1993)	Direct care staff from: 1. A hospital (34 participants)	<i>Potential demands-support-constraints:</i>	Medium sized community units less stressful for

	<p>2. Three community units (47 participants)</p> <p>3. Eight small group homes (31 participants)</p> <p>(Residents in the community units had moved from a hospital that had recently closed)</p>	<p>Authors own measure based upon previous research and discussions with staff.</p> <p><i>Stress:</i> Thoughts and feelings index (Fletcher, 1989)</p> <p>Turnover rates also assessed using information from personnel records over financial year in which survey was conducted.</p>	<p>workers than either hospital or small group homes.</p> <p>Ratings of demand were generally related to stress, in that greater perceived demand = greater stress. Ratings of support/constraint were also related to stress levels, in that greater perceived support and lower constraint = lower stress levels.</p> <p>Support/constraints: Hospital staff rated lower perceived support and greater constraints than the community staff. Group home staff gave ratings between the two.</p> <p>Rates of Turnover: 27% Hospital staff 24% Group homes 15% Community units</p>
Edwards & Miltenberger (1991)	125 direct care workers (78) or supervisory staff (46) from community residential settings mainly from rural settings.	<i>Burnout:</i> MBI	<p>Supervisory staff reported higher EE and PA than direct care workers.</p> <p>No significant difference in DP.</p>

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Appendix 5:
Ethical Approval Letter

Appendix 6:
Participant Information Sheet

Participant Information Sheet

Part 1: Summary of the Research

Study Title:

Burnout in Staff who Work with People with Learning Disabilities and Challenging Behaviour

Research into stress and burnout in staff who work with people with learning disabilities who display challenging behaviour is important because it has an impact upon the well-being of staff and the way they interact with clients.

The purpose of the study

The following questionnaire pack looks at levels of staff burnout and two factors which may affect burnout:

- 1) The way staff perceive clients' challenging behaviour
- 2) Staff's working environment

Who is the research being conducting by?

This questionnaire pack has been developed by Lauren Thompson (Trainee Clinical Psychologist) and Sophie Mills (Trainee Clinical Psychologist) based at:

Clinical Psychology Office
School of Psychology
University of Birmingham
Edgbaston
Birmingham
B15 2TT

The research is part of a Doctorate in Clinical Psychology, and is being supervised by Dr. John Rose (Clinical Psychologist) at the University of Birmingham.

Why have I been chosen to take part?

The inclusion criteria for the study:

- Staff who are currently working in residential services with people with learning disabilities.
- Staff working with clients who display challenging behaviour.
- Staff who have known clients for at least three months. This is to ensure that staff have known clients for long enough to be able to respond to the questionnaires.
- Both qualified and unqualified staff who are in a direct care role.

Do I have to take part?

Participation in the research is completely voluntary.

What will happen if I take part / What do I have to do?

If you would like to take part, you will need to complete the Consent Form. You will then be asked to complete a questionnaire pack. It is important to be as honest as possible when answering the questionnaires, in order to obtain a true picture of what influences staff burnout. The questionnaires will ask you questions about your employment, and the clients you work with. For two of the questionnaires (the Challenging Behaviour Perception Questionnaire and the Checklist of Challenging Behaviour), you will be asked to think about a particular client you currently work with as you complete these questionnaires. Once you have completed the questionnaire pack you can then either post the questionnaires back in the attached stamped addressed envelope or leave them in sealed envelopes to be collected by the Chief Investigator.

How long will the questionnaire pack take to complete?

The questionnaire pack will take approximately 30 minutes to complete.

What are the possible benefits of taking part?

Possible benefits of the research are that it gives an opportunity to reflect upon your interactions with service users and your employment in general. In addition, by taking part you will be contributing to an important area of research which may have implications for managing staff burnout.

What are the possible disadvantages and risks of taking part?

The questionnaires will be asking about clients you work with who have challenging behaviour and about your employment, and these may be sensitive issues. If any of the questions cause you distress, and you feel you would like to talk to someone about these issues in confidence, please do not hesitate to contact Dr. John Rose who is a Clinical Psychologist supervising the research, and is available to offer support.

Thank you for reading Part 1. If you would still like to take part, please read Part 2.

Part 2: Further Information

What will happen when the research study stops?

The results of the research will be fed back to staff by way of a report in Autumn 2010.

Will my taking part in the study be kept confidential?

Your answers will not affect your employment. If you withdraw from the research, this will not affect your employment. The questionnaires will remain anonymous and confidential. Your colleagues and managers will not be informed of any individual results. You will have a period of two weeks after completing the questionnaires in which you can withdraw from the study if you wish.

Therefore your Consent Form will be stored together with your questionnaires for two weeks in order for your questionnaires to be identified if you decide to withdraw. After the two week period, your Consent Form will be separated from your questionnaires and it will not be possible to withdraw from the research after this time.

What if there is a problem?

If there is a problem, or you require more information about the study, please do not hesitate to contact Lauren Thompson, Sophie Mills, or Dr. John Rose. If preferred, Lauren and Sophie will be available to come out to your place of work and meet with you.

Contact details:

If you have any queries, concerns or comments about the research please feel free to contact us at the above address. Alternatively you can contact the University of Birmingham on [REDACTED]. To speak to someone independent of the research, please contact INVOLVE on [REDACTED].

If you wish to speak to anyone about any concerns you have about this project please contact Dr. John Rose on [REDACTED], School of Psychology, University of Birmingham, Edgbaston, Birmingham, B15 2TT.

Consent to take part in the research

If you would like to take part in the research, please read the information on the Consent Form which outlines your rights as a research participant, and sign the Consent Form.

Thank you for taking the time to read this.

Appendix 7:
Consent Form

Consent Form

Title of Project: Burnout in Staff who Work with People with Learning Disabilities and Challenging Behaviour

Names of Researchers: Lauren Thompson and Sophie Mills

Your rights as a research participant:

Your participation will be anonymous. Only the researchers will have access to participants' questionnaires. No information will be disclosed to anyone else, including service managers. Your name does not need to be written on any of the questionnaire forms. This consent form will be separated from your questionnaires so that the responses you give cannot be identified. The researchers will record confidentially that a questionnaire has been given to you. It will not be recorded that you have returned a questionnaire.

As the questionnaire is anonymous, it will not be possible to report people's individual results. The results of the questionnaires will be analyzed and reported as a whole. The results will form part of the researchers' theses and research papers, and will be fed back to participants.

Individual questionnaires will be kept in a secure and confidential environment by the researchers. Information about individual questionnaires will not be discussed with other staff from your service.

Your participation in this research is completely voluntary. You are not obliged to take part. You will have a period of two weeks after completing the questionnaires in which you can withdraw from the study if you wish.

Please feel free to contact us if you have any questions or concerns about the research.

Please initial box

I confirm that I have read and understand the Participant Information Sheet dated 26.05.09 (version 3) for the above study. I have had the opportunity to consider the information, ask questions and have had these answered satisfactorily.

I understand that my participation is voluntary and that I am free to withdraw at any time, without giving any reason.

I understand that relevant data collected during the study may be looked at by individuals from the University of Birmingham, regulatory authorities or from the NHS Trust where it is relevant to my taking part in this research. I give permission for these individuals to have access to my research data, and to allow access to research data when auditing.

I agree to take part in the above study.

Name of Participant	Date	Signature
_____	_____	_____

Name of Researcher	Date	Signature
_____	_____	_____

Important notes for participants

Please be aware that you may find answering questions about burnout and challenging behaviour distressing. If at any time you find the questions distressing, please do not continue. You can contact the researchers or their supervisor Dr. John Rose if you require support. You can find the contact details on the Participant Information Sheet.

Appendix 8:
Demographic Questionnaire

Demographic Information Questionnaire

The following questions will provide information about your background and experience of working with challenging behaviour:

1. Age: _____

2. Male: Female:

3. Job title: _____

4. Length of time in current employment:
_____ years _____ months

5. Length of time employed in services for people with learning disabilities:
_____ years _____ months

6. Qualifications _____

7. Training received _____

8. How worried are you by the possibility of violence/assault in your work? (Please circle).

0	1	2	3	4
Not at all	A bit	Moderately	A lot	Extremely

9. How much do you feel personally at risk of violence/assault in your work? (Please circle).

0	1	2	3	4
Not at all	A bit	Moderately	A lot	Extremely

The following questions look at how often you experience violent incidents at work. Please tick the box that most applies to you.

10. In the last month I have experienced aggressive physical contact from a service user

Not at all	1-2 times	3-4 times	5-6 times	More than 6 times
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

If more than 6 times please estimate how many times

11. In the last month I have experienced a service user verbally threatening to hurt me

Not at all	1-2 times	3-4 times	5-6 times	More than 6 times
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

If more than 6 times please estimate how many times

12. In the last month I have experienced a service user verbally abusing me (swearing/shouting – please do not include incidents of verbally threatening to hurt you in this question)

Not at all	1-2 times	3-4 times	5-6 times	More than 6 times
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

If more than 6 times please estimate how many times

Appendix 9:
Maslach Burnout Inventory MBI
(MBI; Maslach & Jackson, 1981; 1986)

Appendix 10:
Modified version of Essen Climate Evaluation Schema
(EssenCES; Schalast, Redies, Collins, Stacey & Howells, 2008)

EssenCES (Essen Climate Evaluation Schema)

		I agree:				
		Not at all	Little	Some-what	Quite a lot	Very much
1	This place has a homely atmosphere					
2	As much as they are able to, the residents care for each other					
3	Really threatening situations can occur here					
4	As much as they are able to, residents can openly communicate to staff about all their problems here					
5	Even the weakest resident finds support from their fellow residents					
6	There are some really aggressive residents here					
7	Staff take a personal interest in the progress of residents					
8	As much as they are able to show, residents care about their fellow residents' problems					
9	Some residents are afraid of other residents					
10	Staff members take a lot of time to deal with residents					
11	When a resident has a genuine concern, they find support from their fellow residents as much as they are able to					
12	Staff members are afraid of some of the residents					
13	Often, staff seem not to care if residents succeed or fail in treatment and/or placement					
14	There is good peer support among residents					
15	Some residents are so excitable that one deals very cautiously with them					
16	Staff know residents and their personal histories very well					
17	Both residents and staff are comfortable here					

Appendix 11:
SPSS Output for Regression Diagnostics

Dependent Variable: Emotional Exhaustion

Output for Autocorrelation

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.398 ^a	.159	.146	10.29500	.159	13.004	1	69	.001	
2	.505 ^b	.255	.233	9.75578	.097	8.838	1	68	.004	
3	.557 ^c	.310	.257	9.60669	.054	1.709	3	65	.174	1.866

ANOVA^d

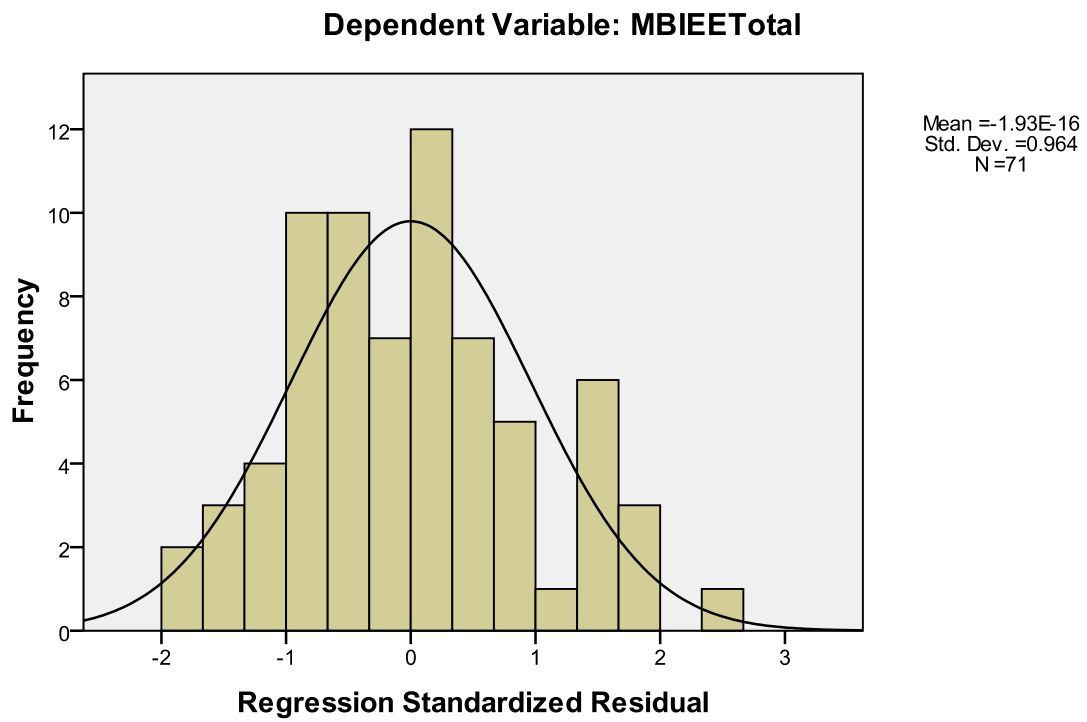
Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	1378.221	1	1378.221	13.004	.001 ^a
	Residual	7313.103	69	105.987		
	Total	8691.324	70			
2	Regression	2219.401	2	1109.700	11.660	.000 ^b
	Residual	6471.923	68	95.175		
	Total	8691.324	70			
3	Regression	2692.567	5	538.513	5.835	.000 ^c
	Residual	5998.757	65	92.289		
	Total	8691.324	70			

Output for Colinearity

Coefficients^a

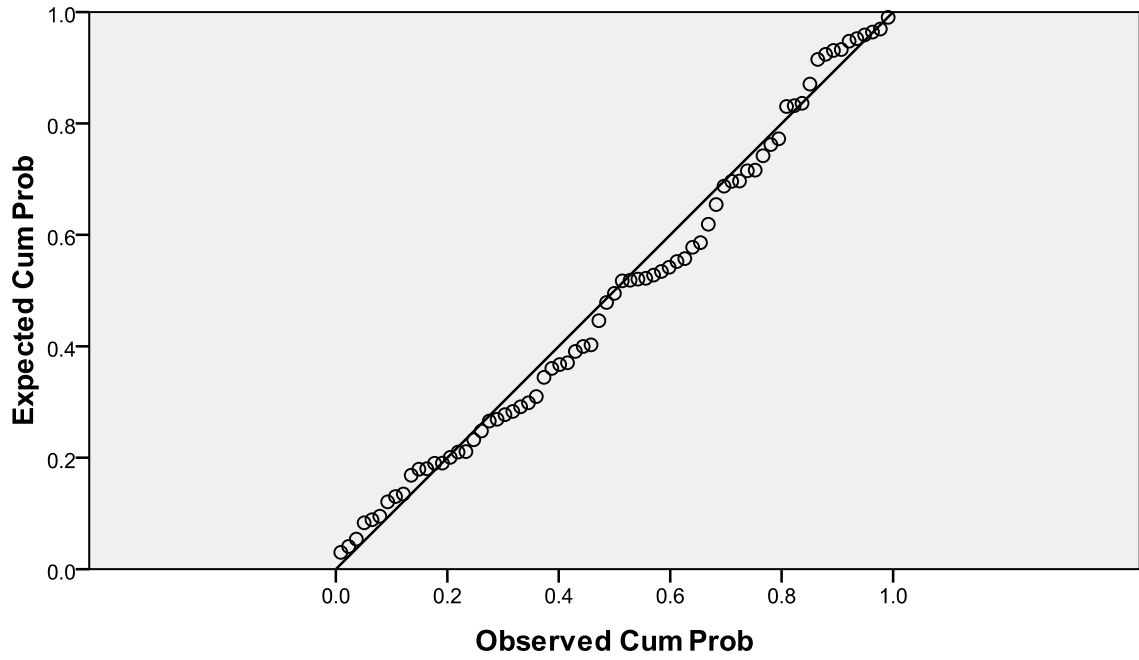
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	14.600	1.843		7.920	.000	
	AggPhysThreatVerbTotal	1.155	.320	.398	3.606	.001	1.000
2	(Constant)	6.076	3.357		1.810	.075	
	AggPhysThreatVerbTotal	.602	.356	.207	1.690	.096	.727
	WorryRiskTotal	2.060	.693	.365	2.973	.004	.727
3	(Constant)	10.054	8.170		1.231	.223	
	AggPhysThreatVerbTotal	.500	.365	.173	1.372	.175	.672
	WorryRiskTotal	1.744	.742	.309	2.349	.022	.614
	PatientCohesionEssenCES	-.624	.277	-.259	-2.256	.027	.803
	ExperiencedSafetyEssenCES	-.119	.296	-.050	-.401	.690	.680
	TherapeuticHoldEssenCES	.284	.409	.078	.694	.490	.847

Histogram



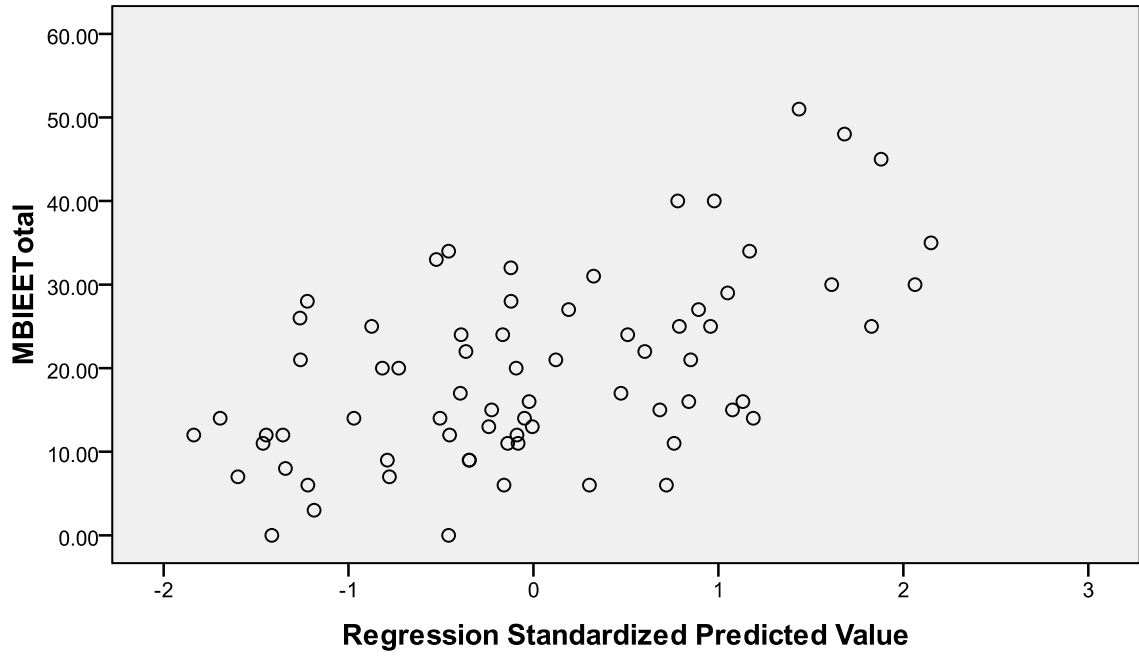
Normal P-P Plot of Regression Standardized Residual

Dependent Variable: MBIETotal



Scatterplot

Dependent Variable: MBIETotal



Dependent Variable: Depersonalisation

Output for Autocorrelation

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.433 ^a	.188	.176	4.95541	.188	15.945	1	69	.000	1.306
2	.529 ^b	.280	.259	4.70031	.092	8.693	1	68	.004	
3	.536 ^c	.287	.233	4.78206	.008	.232	3	65	.874	

ANOVA^d

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	391.548	1	391.548	15.945	.000 ^a
	Residual	1694.370	69	24.556		
	Total	2085.918	70			
2	Regression	583.597	2	291.799	13.208	.000 ^b
	Residual	1502.321	68	22.093		
	Total	2085.918	70			
3	Regression	599.490	5	119.898	5.243	.000 ^c
	Residual	1486.428	65	22.868		
	Total	2085.918	70			

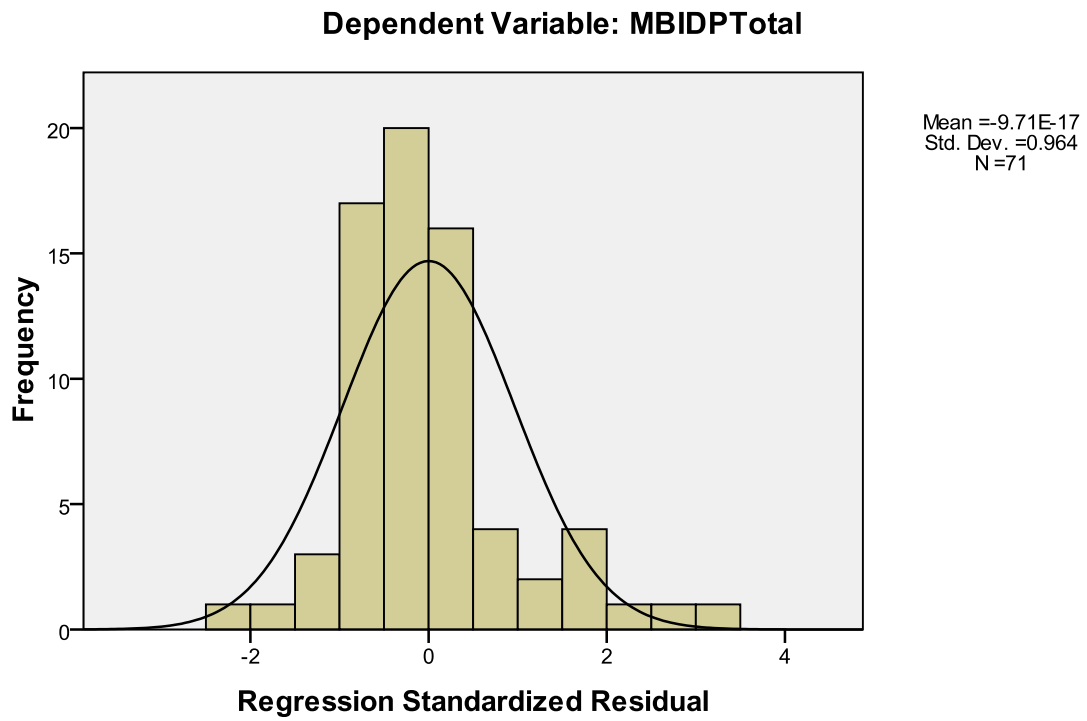
Output for Colinearity

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	2.168	.887		2.443	.017		
	AggPhysThreatVerbTotal	.616	.154	.433	3.993	.000	1.000	1.000
2	(Constant)	-1.905	1.618		-1.178	.243		
	AggPhysThreatVerbTotal	.351	.172	.247	2.048	.044	.727	1.376
	WorryRiskTotal	.984	.334	.356	2.948	.004	.727	1.376
3	(Constant)	.059	4.067		.014	.989		
	AggPhysThreatVerbTotal	.331	.182	.233	1.821	.073	.672	1.489
	WorryRiskTotal	.925	.370	.334	2.502	.015	.614	1.629
	PatientCohesionEssenCES	-.094	.138	-.080	-.685	.496	.803	1.245
	ExperiencedSafetyEssenCES	-.021	.147	-.018	-.144	.886	.680	1.470
	TherapeuticHoldEssenCES	-.037	.203	-.021	-.181	.857	.847	1.181

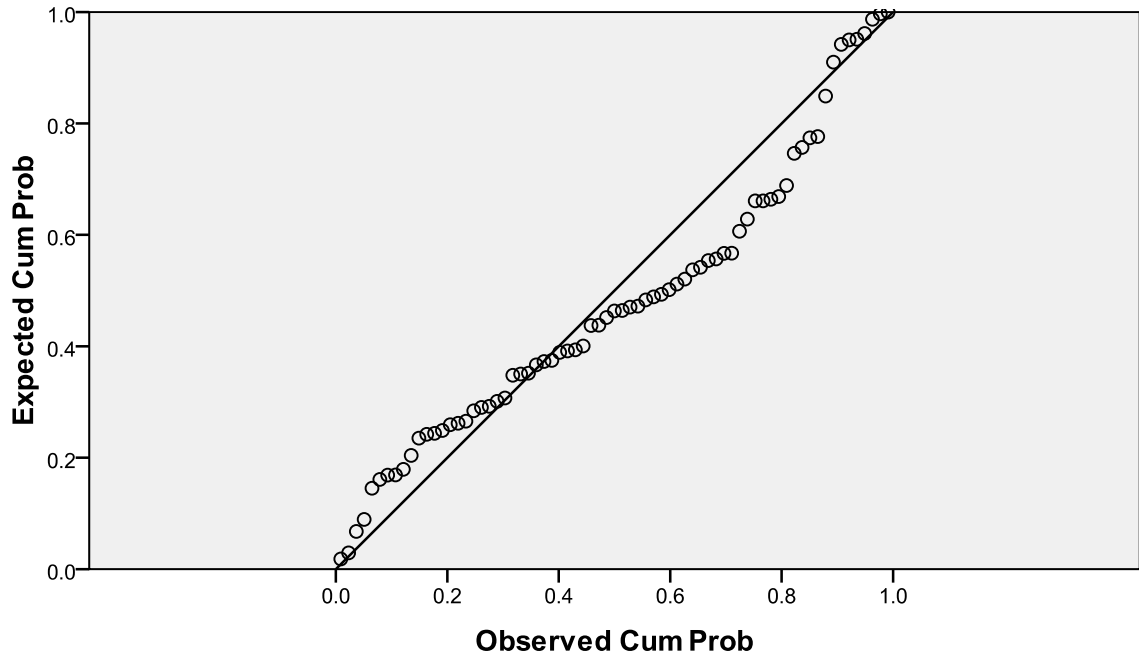
a. Dependent Variable: MBIDPTotal

Histogram



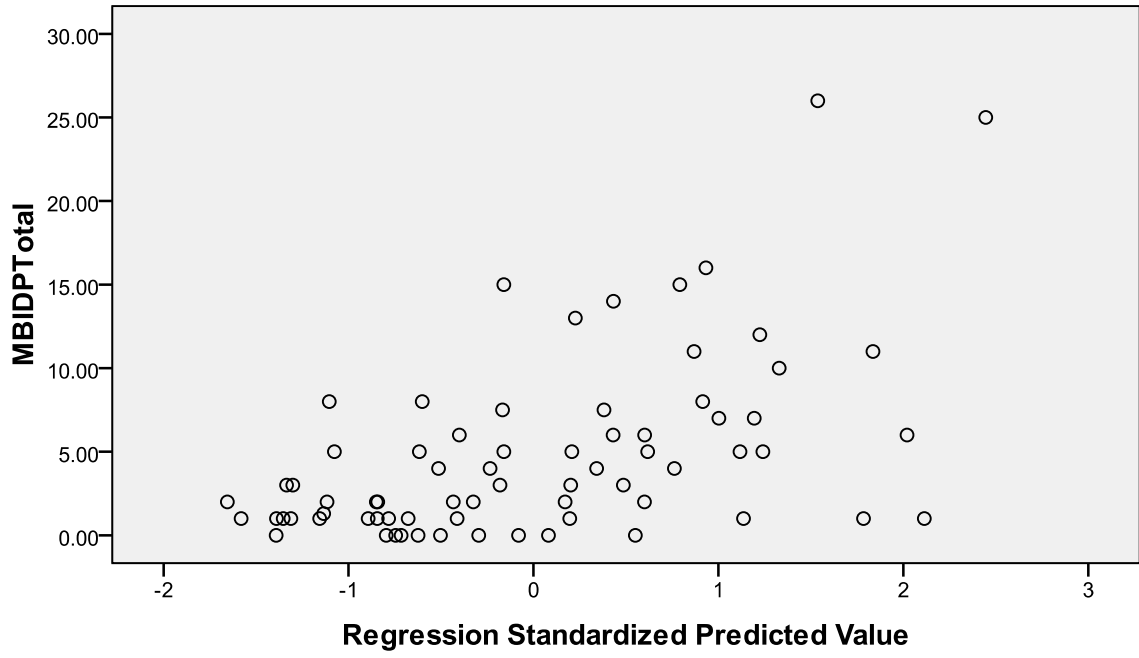
Normal P-P Plot of Regression Standardized Residual

Dependent Variable: MBIDPTotal



Scatterplot

Dependent Variable: MBIDPTotal



Dependent Variable: Personal Accomplishment

Output for Autocorrelation

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.415 ^a	.172	.160	6.18694	.172	14.169	1	68	.000	1.695
2	.416 ^b	.173	.148	6.23019	.001	.059	1	67	.808	
3	.507 ^c	.257	.199	6.04333	.084	2.402	3	64	.076	

ANOVA^d

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	542.384	1	542.384	14.169	.000 ^a
	Residual	2602.923	68	38.278		
	Total	3145.307	69			
2	Regression	544.682	2	272.341	7.016	.002 ^b
	Residual	2600.625	67	38.815		
	Total	3145.307	69			
3	Regression	807.907	5	161.581	4.424	.002 ^c
	Residual	2337.400	64	36.522		
	Total	3145.307	69			

Output for Colinearity

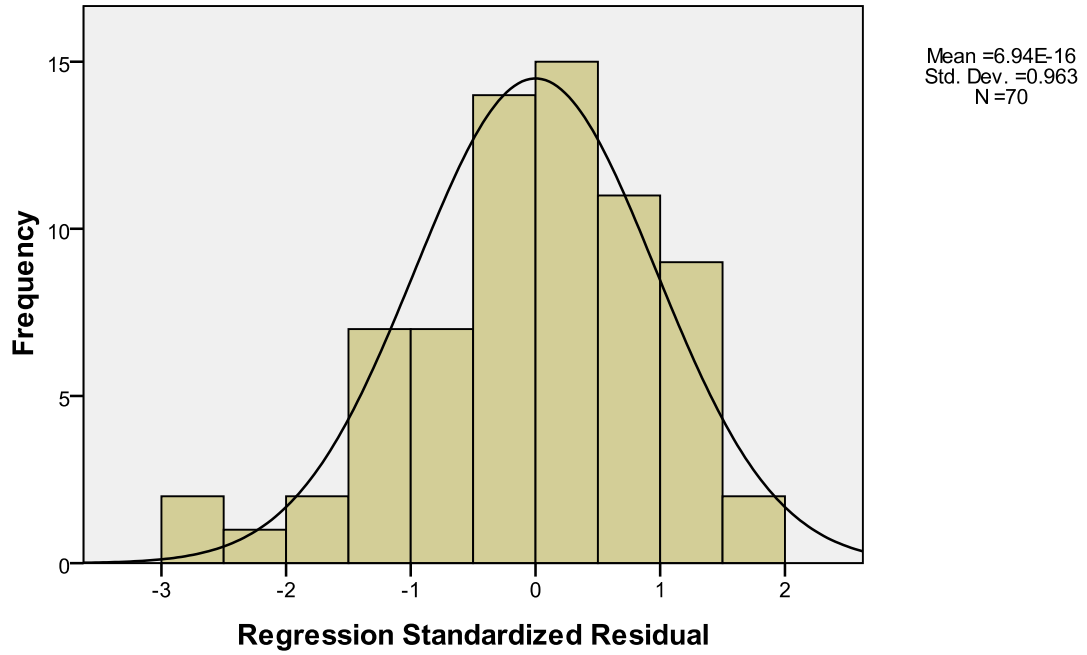
Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	39.444	1.122		35.170	.000		
	AggPhysThreatVerbTotal	-.728	.194	-.415	-3.764	.000	1.000	1.000
2	(Constant)	38.997	2.156		18.084	.000		
	AggPhysThreatVerbTotal	-.757	.228	-.432	-3.322	.001	.731	1.368
	WorryRiskTotal	.108	.443	.032	.243	.808	.731	1.368
3	(Constant)	27.842	5.234		5.320	.000		
	AggPhysThreatVerbTotal	-.676	.229	-.386	-2.948	.004	.679	1.473
	WorryRiskTotal	.344	.469	.101	.734	.465	.612	1.634
	PatientCohesionEssenCES	.243	.177	.165	1.375	.174	.808	1.238
	ExperiencedSafetyEssenCES	.117	.193	.080	.609	.545	.679	1.473
	TherapeuticHoldEssenCES	.418	.257	.189	1.623	.110	.860	1.163

a. Dependent Variable: MBIPATotal

Histogram

Dependent Variable: MBIPATotal



Normal P-P Plot of Regression Standardized Residual

Dependent Variable: MBIPATotal

