Staff Burnout in Intellectual Disability Services

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BSc (Hons), MSc

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Contents

Chapter 2 Empirical Paper 67

Investigating predictors and moderators of burnout in staff working in intellectual disability services: The role of emotional intelligence, exposure to violence and self-efficacy.

List of Tables

List of Figures

List of Abbreviations

ABA	Applied Behavioural Analysis
ACT	Acceptance and Commitment Therapy
aMBI	Abbreviated Maslach Burnout Inventory
CASP	Critical Appraisal Skills Programme
CB	Challenging Behaviour
DP	Depersonalisation
EE	Emotional Exhaustion
EI	Emotional Intelligence
GHQ	General Health Questionnaire
ID	Intellectual Disability
JARID	Journal of Applied Research in Intellectual Disabilities
PA	Personal Accomplishment
RCT	Randomised Control Trial
SE	Self-Efficacy
TEIQue-SF	Trait Emotional Intelligence Questionnaire – Short Form

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Declarations

Title of degree programme	Doctorate in Clinical Psychology
Candidate name	Jennifer Shead
Registration number	10038834
Initial date of registration	September 2011

Declaration and signature of candidate
I confirm that the thesis submitted is the outcome of work that I have undertaken during my programme of study, and except where explicitly stated, it is all my own work. I confirm that the decision to submit this thesis is my own. I confirm that except where explicitly stated, the work has not been submitted for another academic award. I confirm that the work has been conducted ethically and that I have maintained the anonymity of research participants at all times within the thesis. Signed: Date:

Preface

Throughout this thesis the term Intellectual Disability (ID) is used to refer to the client group. This term is intended to encompass other such variants including learning disability, developmental disabilities and mental retardation.

Thesis Abstract

This thesis comprises three chapters; a literature review, an empirical paper, and a commentary and reflective review. The literature review critiques stress management interventions for staff working in adult intellectual disability services. There is recognition that working in intellectual disability services can be stressful for staff members. Stress management interventions tended to focus on reducing stress rather than on preventing it. Interventions were categorised as cognitive-behavioural approaches, acceptance and commitment approaches or collaborative approaches where staff members were involved in developing person-centred interventions. Considerations and implications for future stress management interventions are discussed.

The empirical element of this thesis focused on investigating predictors of burnout in 86 staff working in intellectual disability services. The paper explored the role of emotional intelligence, exposure to violence and self-efficacy in burnout development. The findings from the empirical paper demonstrated that low self-efficacy and high exposure to violence predicts burnout as measured by the emotional exhaustion (EE) and depersonalisation (DP) components of the burnout measure. Self-efficacy was found to moderate the relationship between violence and burnout (EE and DP). Emotional intelligence was found to predict personal accomplishment (PA) which can protect against burnout development. Emotional intelligence was not found to moderate the relationship between exposure to violence and burnout. Lower levels of emotional intelligence did not predict EE or DP.

The commentary and reflective review provides an account of the research process critiquing the decisions made throughout. This includes the process of the literature review searches and topic selection; the empirical paper design, variables, method, data collection and measures. Reflective discussion in this review includes consideration of the ethical issues, clinical and theoretical implications and personal reflexivity.

Word Count: 18,376

Chapter 1 Literature Review

Exploring Stress Management Interventions for Staff Working in Adult Intellectual Disability Services.

Abstract

The term intellectual disability (ID) refers to individuals who have impairments in cognitive and adaptive functioning and these usually originate before the age of 18 (World Health Organisation, 2014). Research has found a link between severe challenging behaviours and the development of stress in staff working in ID settings (Hastings, 2002). Challenging behaviour (CB) refers to verbally or physically aggressive acts that jeopardise the safety of the individual or others (Emerson, 2001). A substantial amount of research has focused on exploring the experience of stress and burnout in staff in ID services (Hastings, 2010), and to a lesser extent interventions aimed at reducing or preventing stress. Psychological variables of support staff, such as stress, attitudes and attributions surrounding their work and their clients, are increasingly being recognised as impacting upon outcomes for individuals with ID. This review initially discusses the concept and theories of stress and burnout with respect to staff working in ID services. Staff responses to challenging behaviour in ID services are also considered in relation to the development of stress. The main focus of this paper will then be on reviewing stress management interventions available for staff working in ID services and to assess their effectiveness.

Introduction

Staff members working in ID services report significant levels of stress (Noone & Hastings, 2009). Research has found that individuals working with the most severe challenging behaviours are at risk of developing stress (Hastings, 2002). Emerson (2001) defines challenging behaviour as verbal or physically aggressive acts that jeopardise the safety of the individual or others. An NHS sickness absence report (Health and Social Care Information Centre, 2013) found healthcare assistants and support staff, irrespective of healthcare setting, had the second highest sickness rates when compared to other professionals. Rose, Jones and Fletcher (1998a) found that when stress levels were high in ID support staff, fewer positive interactions between staff and service users occurred and less assistance was given to clients by staff.

Rose (2011) reviewed the literature exploring how staff psychological factors impact on outcomes for people in ID residential services, focusing on research that had considered staff experiences of clients' CB. The psychological factors of staff that are increasingly being recognised as important in outcomes for ID service users include attitudes towards clients, attributions of behaviour, wellbeing, burnout and emotional reactions (Phillips & Rose, 2010). Outcomes for ID service users summarised by Rose (2011) included reductions in challenging behaviour, improved quality of care, better quality of life and stable residential placements (Hastings, 2010). The review purports that further research is required in order to understand how staff might impact on service users. Jenkins, Rose and Lovell (1997) found CB increased staff anxiety and reduced their ability to identify risk. The authors attributed this to the general demands and difficulties (i.e. violence) encountered when working with clients who challenge. They recommended that future research should consider the relationship between stressors, staff responses and coping. A substantial amount of research has attempted to understand the experience and prevalence of stress and burnout in ID staff (Hastings, 2010). Fewer research studies have focused on interventions for staff stress.

The Concept of Stress and Burnout

Innstrand, Espnes and Mykletun (2002) consider research efforts to define stress. The interaction between environmental stressors and the individual's response is

pertinent to the phenomena of stress (Brannon & Feist, 1997). Emphasis is put on the cognitive state which results from the stressor i.e. how one thinks about and appraises the stressor. This cognitive state then determines the level of psychological and/or physiological strain caused by the stressor and therefore can act as a protective factor against stress (Hendrix, Summers, Leap & Steel, 1995).

Burnout and stress are hard to distinguish between due to the similarity of symptoms. Researchers propose burnout is a process that evolves over time due to prolonged stressors and the prolonged experience of stress (Maslach & Schaufeli, 1993; Schaufeli & Buunk, 1996). Cherniss (1980a, 1980b) described burnout as a three stage process. Firstly one experiences *stress* due to demands outweighing resources. Secondly *strain* and emotional fatigue is experienced such that one is displaying emotional exhaustion and tension. Thirdly as a functional consequence one's behaviour and attitudes become negative or detached as a *defence*. This may transpire as staff interacting with clients in a detached impersonal manner. Proposed catalysts for burnout at work include ongoing stressors outweighing support and rewards, therefore an individual can experience stress without burnout developing if adequate support and reward is available (Pines & Aronson, 1988).

Innstrand et al. (2002) highlighted that the operational definition of burnout most widely used was developed by Maslach (1993). Maslach's burnout model comprises three factors: emotional exhaustion (EE), depersonalisation (DP) and reduced personal accomplishment (PA). Emotional exhaustion, which is suggested to be the most crucial concept and the stress component within the burnout process (Leiter, 1993), concerns one's emotional coping resources feeling depleted as a result of interpersonal demands. This may be when a person appraises that they no longer have the emotional energy to cope with demands. Depersonalisation refers to emotionally detaching oneself from those one is working with or caring for as a functional consequence of EE. Personal accomplishment relates to the extent to which an individual feels they are, or are not, achieving success in their work. This operational definition of burnout will be the focus of this thesis.

Innstrand et al. (2002) provide an overview of the three theoretical frameworks that attempt to account for the stressors that result in burnout. These consist of

interpersonal approaches, individual approaches and organisational approaches. The interpersonal approach considers three aspects; the relationship between carer and service user (Schaufeli & Buunk, 1996); the emotional demands (Maslach, 1993) and relationships with colleagues (Buunk & Schaufeli, 1993). Being unable to find meaning within these three interpersonal concepts is key to the development of burnout (Pines, 1993). It is suggested that if individuals find meaningful relationships between their colleagues and their clients this can prevent burnout processes. Individual approaches place more emphasis on intrapersonal processes, such as frustrations in relation to expectations, goals and autonomy (Burisch, 1993; Schaufeli, Maslach & Marek, 1993). The theory suggests that when expectations of work are not met, goals are unobtainable, and autonomy is lost, then burnout is more likely to develop. In addition, discrepancies between hopes and the reality of work (Schaufeli & Buunk, 1996), or not being able to realise one's hopes through work, can lead to burnout (Leiter & Harvie, 1996). In contrast the organisational approach is concerned with the organisational context in which one is working, such as the structures and support available (Winnubst, 1993). The organisational contexts that can lead to staff burnout include monotony of routine, lack of control or autonomy and lack of structure around work procedures. It may be that these areas of potential stressors (interpersonal, individual and organisational) simultaneously impact on an individual's stress levels and the potential subsequent experience of burnout. Alternatively these three areas can help to mitigate stress and burnout development.

Skirrow and Hatton (2007) undertook a systematic review of burnout research concerning care workers in ID adult services. In relation to predictors of burnout, they reported that organisational variables were the most reliable predictor particularly related to EE and to a lesser extent PA and DP. Organisational variables in their review pertained to a negative view of the organisation and one's role or feeling in need of greater support from managers. The studies used correlational designs and therefore causality could not be determined. Furthermore the review suggested that the presence of CB is not always a predictive factor in support staff experiencing burnout. Therefore the presence of CB may not be a stressor for some staff members. If CB is stressful for staff other interpersonal, intrapersonal and organisation factors may prevent burnout developing. Other research studies have

found the opposite suggesting CB is a predictor of burnout (Howard, Rose & Levenson, 2009; Mills & Rose, 2011).

Stress and Burnout Theories in ID Services

Devereux, Hastings and Noone (2009a) completed a literature review which focused on work stress theories that had been applied to research within ID settings. They identified five key theories that have been utilised in stress and burnout research pertaining to ID services. The person-environment theory (Edwards, Caplan & Van Harrison, 1999) suggests stress arises if the interaction between the person and the environment is not congruent. Fundamental to this model is incompatibility between the characteristics of the work and worker, for example, when the demands of the job exceed the person's capacity, strain can result. Demand-support-control theory (Karasek & Theorell, 1990) pertains to the interaction of the three elements of demand, support and control. When one has little control or support and work demands are high, stress has a greater chance of developing. Cognitive-behavioural theory (Lazarus & Folkman, 1984) focuses on the person's appraisal of the demands and their coping resources. If the individual perceives they have the resources to cope with the demands this can mitigate the development of stress. Equity theory (Adams, 1965) relates to the perception one has about the equity in work relationships with perceived inequity being more likely to lead to stress. The focus of equity theory is the relationship between staff and the service user and what fulfilment the staff member obtains from the interaction (Hastings, 2010). Therefore, if the staff member perceives they invest a lot into a relationship and receive little back or experience rejection this can lead to stress. Finally, emotional overload theory (Maslach, 1982) suggests that the interpersonal demands are the source of stress and these may outweigh the person's emotional resources resulting in EE. Maslach's emotional overload model of burnout incorporates the concepts of EE, DP and PA, these were discussed earlier. Maslach's (1982) burnout model is the focus of the empirical paper in this thesis.

According to Devereux et al. (2009a) these five theories have common themes. Firstly outcomes for workers are related to the demands placed upon them. Secondly the meeting of these demands requires sufficient resources. Therefore, the differences in the theories lie in the hypotheses surrounding the type of

interaction between demands, resources and the intervening cognitive processes. Devereux, Hastings, Noone, Firth and Totsika (2009b) considered the role of cognitive processes in coping and its effects on the relationship between work demands and ID staff wellbeing. They found individuals were less emotionally exhausted when they used wishful thinking as a coping strategy. Their research provides evidence that the cognitive processes of staff play an important role in mediating the impact of stressors on the development of stress.

Challenging Behaviour, Violence and Stress in ID Services

Research by Mills and Rose (2011) explored the relationship between challenging behaviour, staff burnout and the cognitive variables of staff members. They found CB and staff burnout were correlated, such that if CB levels were high so were stress levels. Their findings suggested that negative emotions affected the relationship between burnout and aggressive CB. Therefore when staff were faced with aggressive behaviour those who experienced negative emotions in response to this were more likely to experience higher EE and DP.

Howard et al. (2009) considered staff experience of violence in ID services and its relationship to fear of violence, perceived self-efficacy, available support and burnout. They compared a community team with low incidences of violence to staff from a medium-secure setting where frequency of violence was higher. They found that there was a relationship between violence and burnout but no significant differences between the two groups despite large differences in exposure to violence. This suggested other mediating factors that were not measured may impact on the relationship between violence and burnout.

The researchers also considered the relationship between threats of violence and fear of violence. Interestingly, where threats of violence were high, the medium secure staff reported being less fearful of violence. The opposite has been found in other studies where higher levels of CB, such as threats of violence, were correlated with greater fear in staff members (Mills & Rose, 2011; Rose & Cleary, 2007). Howard et al. (2009) suggest this may be due to staff having more experience of dealing with violence and thus may report that they are less fearful as they feel more equipped. Self-efficacy was found to be a significant moderator between physical

violence and subsequent emotional exhaustion (Howard et al., 2009); the greater the reported self-efficacy the less EE was experienced as a result of violence. The authors purport that their research supports training staff to deal with CB in order to help prevent stress and improve self-efficacy in dealing with violence. The research presented highlights how exposure to CB and violence within the workplace has a relationship with staff experiences of stress and burnout.

Aim of the Literature Review

The introduction has demonstrated the research focus on theories and concepts of stress and burnout and pertained to the lack of intervention research for stress. The primary aim of this literature review is to explore the stress management interventions used with staff working in ID services and to assess their effectiveness.

Method

Search Strategy

This literature review focused on exploring stress management interventions for staff members working in adult ID services.   Papers were searched using PsycINFO, PsycARTICLES, PsycBOOKS, CINAHL Plus with full text, SPORTSDiscus with Full Text, eBook Collection, MEDLINE and Web of Science, using hosts EBSCO and Web of Knowledge. The following search terms were used: (*burnout* or *stress* or *stress management* or *stress intervention)* and (*staff*) and (*learning disabilit** or *intellectual disabilit** or *mental retardation*). Hand searches of reference lists were also conducted. A grey literature search was conducted on Google Scholar using the above search terms but yielded no further papers.

The inclusion criteria for papers were as follows:

- Articles published in English
- Any year of publication
- Participants were staff members working in adult ID services for people aged 18 and over
- Articles exploring the effectiveness of stress interventions for staff working in adult ID services

- Measures specifically exploring the effect of stress interventions on the participants.

The exclusion criteria for papers were as follows:
- Book reviews or editorials
- Considering stress characteristics in staff but not concerning interventions
- Staff working in child ID services or specialist ID dementia services.

Selection and Data Extraction

The search populated 395 papers, 102 duplicates were removed, a further 153 papers were unrelated to the topic of interest and 128 were related to stress but not interventions. Twelve articles remained; two were unobtainable American student dissertations. Therefore, 10 papers were retained for review and full-text was retrieved (Figure 1). A data extraction sheet (Appendix 1) was used to help detail the background to the study, the sample, recruitment, measures, procedures, intervention and findings along with strengths and weaknesses of each paper.

One must be mindful of publication bias as grey literature dissertations (Bethay, 2009; Quintanilla, 1999) were unobtainable through the British Library. It was also possible that such intervention studies exist as service evaluations or audits within organisations but are unpublished. Publication bias relates to the type of studies that are published and how these are selected (Ferguson & Brannick, 2012). It may be that particular designs i.e. Randomised Control Trials (RCTs), large sample sizes and outcomes such as statistically significant findings are favoured over other papers.

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│ abstracts screened for       │
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             │                    │   ➢ 128 Stress but not           │
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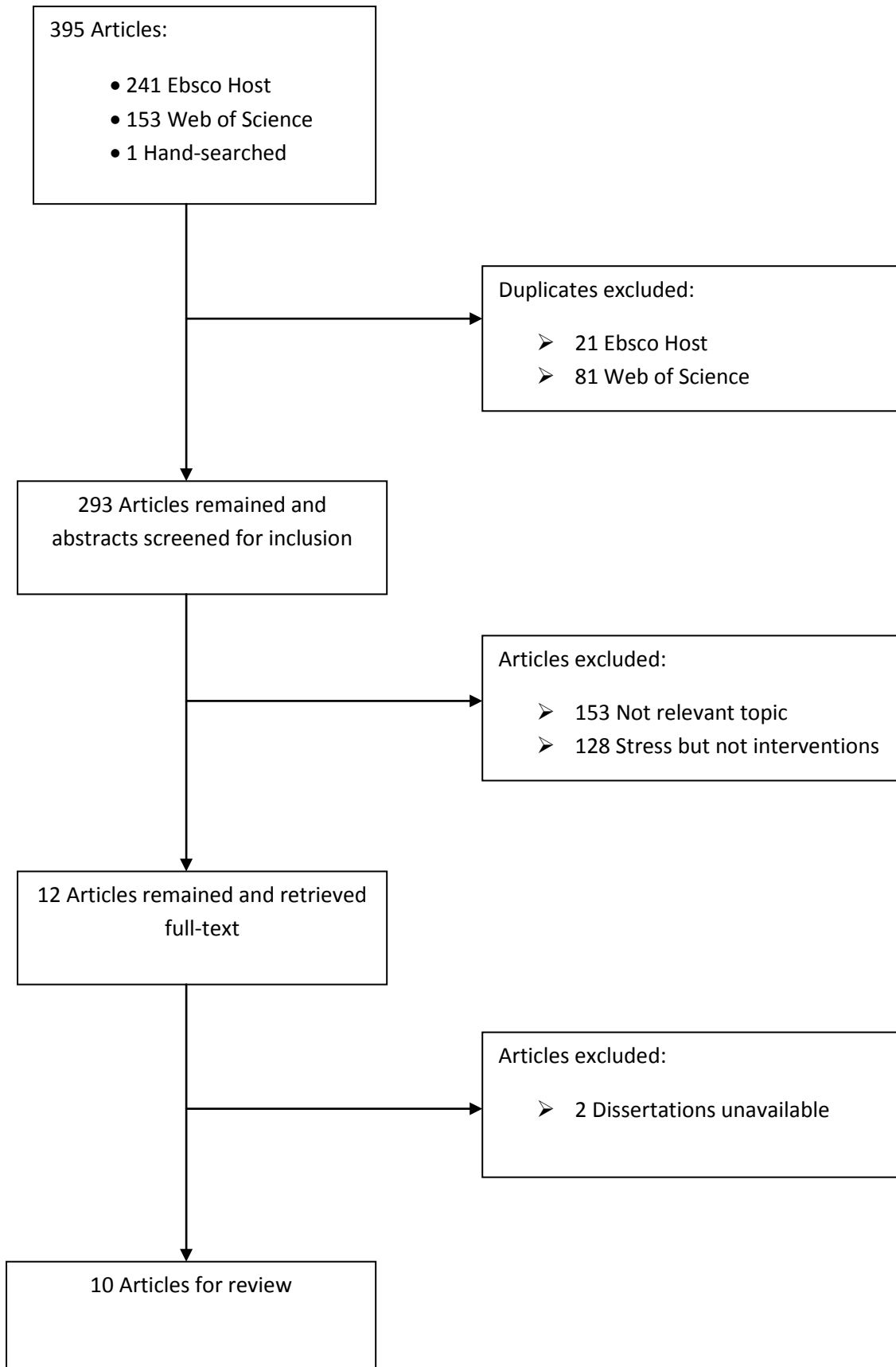
Figure 1 Flowchart to show selection procedures

Quality Assessment Tools

The papers were critically appraised using the Critical Appraisal Skills Programme (CASP, 2013) which sets a list of 11 questions to help the reviewer consider the validity and quality of an article (Appendix 2). The CASP checklist for randomised controlled trials was utilised to screen for RCT papers. In addition the Downs and Black (1998) quality checklist for both randomised and non-randomised studies was utilised for non-RCT articles. This checklist comprises 27 questions and was appropriate to use on quantitative intervention methodologies (Appendix 3). This checklist has demonstrated promising reliability, validity and evaluation processes (National Collaborating Centre for Methods and Tools, 2008).

Results

Study Characteristics

An overview of the characteristics of the final 10 papers including strengths and limitations can be seen in Table 1. All papers utilised quantitative methodology with the exception of one which employed both qualitative and quantitative analysis (Van Oorsouw, Embregts, Bosman & Jahoda, 2013). All 10 papers were published in peer-reviewed journals. The year of publication ranged from 1994 to 2013.

The 10 papers attempted to evaluate the effectiveness of various stress management interventions for ID staff. All the research studies followed a pre-and-post-intervention design whereby measures were taken before and after the stress management intervention in order to measure outcomes. The papers are synthesised and critiqued in relation to the intervention approaches, the measures utilised, and the outcomes.

The earliest dated papers used collaborative approaches to develop idiosyncratic problem solving and goal setting whereby participants designed and engaged in the intervention as part of the stress reduction programme (Gardner & Rose 1994; Hodgkins, Rose & Rose, 2005; Innstrand, Espnes & Mykletun, 2004; Rose, Jones & Fletcher, 1998b). The more recent papers focus on acceptance and commitment based interventions (Bethay, Wilson, Schnetzer, Nassar & Bordieri, 2013; Noone & Hastings, 2009; 2010; Van Oorsouw et al., 2013) incorporating other approaches such as mindfulness and applied behavioural analysis. The two remaining papers

considered cognitive behavioural approaches and the transactional model of stress (Gardner, Rose, Mason, Tyler & Cushway, 2005; Ingham, Riley, Nevin, Evans & Gair, 2013).

RCTs, also known as true experimental designs, are seen as the gold standard in many research fields, including clinical psychology and healthcare. In order for a design to be considered an RCT the study must have at least an intervention group and control group and participants need to be randomly allocated to groups (Robson, 2002). They are considered to be a high standard as the design attempts to control for bias and confounding variables, allowing the outcome of an intervention to be rigorously investigated (Sibbald & Roland, 1998). Seven of the papers employed a control group, five of which received no intervention (Gardner et al., 2005; Innstrand et al., 2004; Noone & Hastings, 2009; Rose, Jones & Fletcher, 1998b; Van Oorsouw et al., 2013) and two which received a comparison intervention (Bethay et al., 2013; Ingham et al., 2013). Only two out of the seven aforementioned papers claimed to assign participants to groups randomly (Rose, Jones & Fletcher, 1998b; Bethay et al., 2013). Details of the randomisation process were omitted so it is difficult to ascertain the nature of this process. A rigorous randomisation process helps prevent bias in the allocation of participants to groups, such that observed intervention effects have greater validity (Haslam & McGarty, 2003).

Table 1 Table to show the final 10 articles for review

Author/ Date/ Country	Design	Participants	Measures	Intervention	Main Findings	Strengths	Limitations
1. Gardner & Rose (1994) (UK)	Quasi – Experimental Pre-and-post-intervention measures and 8 month follow-up (no control group)	18 ID day centre staff	Authors' devised questionnaire; perceptions of stress, attitudes, control, job reward & satisfaction. Sources of stress, coping & effects. Depression & anxiety scales within the Thoughts & Feelings Index (Fletcher, Jones & Turner, 1991)	Three 1-hour sessions. 1: Concepts of work stress, organisational stress patterns, sources of stress & coping. Personal profile of stress. 2: Feedback on profiles of organisation & set goals to reduce stressors. 3: Review sessions & goals.	Pre-and-post-intervention no changes. Pre- and 8 month follow-up comparison showed a reduction in depression and anxiety scores but not significant. Positive qualitative staff accounts.	Positive changes are detailed but not statistically captured. The session goal setting was collaborative with staff team and implementation of further support after the study.	Statistical analysis not reported for pre-&-post & follow-up comparisons (i.e. tests used) and only means displayed. No control group. No power calculation or effect sizes.
2. Rose, Jones & Fletcher (1998b) (UK)	Experimental Pre-and-post-intervention measures (control group)	32 ID residential care staff	Demands & Support Questionnaire (Rose, 1993). Thoughts & Feelings Index (Fletcher, 1989). Resident	3 Sessions: One day workshop considering concept of stress, demands, support constraints	Anxiety reduced & support increased in intervention group when compared to control group. Observations displayed an	Collaborative intervention design. Used observational data too. Use of control group. Randomly allocated to groups. Group	Bespoke intervention difficult to replicate. Due to drop-out rate pre-and-post questionnaire comparison sets were matched

| | | | | model, problem solving & goal setting.

Monitoring meeting (1 hour) to review goal progress.

Follow-up day session to review goals. | increase in positive interactions, assistance & social interaction. | differences controlled for. Small effect size provided ($\eta^2 = 0.11$). | pairs in both groups rather than the same participants. |
|---|---|---|---|---|---|---|---|
| 3. Innstrand, Espnes & Mykletun (2004)

(Norway) | Quasi-Experimental

Pre-and-post-intervention measures (control group) | 65 ID residential care staff | Non-validated stress measure (Bru, Mykletun & Svebak, 1997).

Maslach Burnout Inventory-General Survey (MBI-GS; Schaufeli, Leiter & Kalimo, 1995).

Worker satisfaction scale (Nytro, 1995). | Collaborative meeting - participants developed individual and organisational solutions to stressors - implemented over 10 months. | Experimental group showed significant reduction in stress and exhaustion and significant rise in job satisfaction when compared to control group.

No significant effects on cynicism or professional self-efficacy. | Collaborative intervention designed by staff members to address their priorities.

Control group used. Between group differences were explored. Statistical analysis detailed clearly. | Not randomised. Participant location determined group allocation. Stress and burnout in control group increased during the study. They do not state if they offered an intervention to control group. No power calculation or effect sizes. |
| 4. Gardner, Rose, Mason, Tyler, Cushway (2005) | Quasi-Experimental Pre-, post- and 3 month post-intervention | 138 ID staff | General health questionnaire (GHQ-12; Goldberg, 1978). | Transactional model of stress. Each group three, 3.5 hour | The cognitive and behavioural interventions were both effective at | Control group were offered the stress management training | Random assignment of staff to the conditions was |

(UK)	follow-up measures (2 experimental groups and a waiting list control group)		Mental health professionals stress scale (Cushway, Tyler & Nolan, 1996). Eysenck personality questionnaire-revised short scale (Eysenck & Eysenck, 1991). Support questionnaire (Cushway et al., 1996). Appraisal Questionnaire (Lazarus, 1999). Ways of coping questionnaire (Folkman & Lazarus, 1988).	workshops. Cognitive based stress management training programme designed to help modify cognitive appraisals of situations (cognitive group). Traditional behavioural coping skills training programme for stress management (behavioural coping group).	lowering GHQ scores at 3 month follow-up in those who had clinically significant GHQ scores at pre-test. Improvement at follow-up was greater for those in the cognitive intervention.	programme. Attrition bias and characteristics of those lost at follow-up were discussed. Effect sizes detailed; large effect for cognitive group ($d = 0.81$); medium effect for behavioural group ($d = 0.65$).	not feasible. Ethics around higher GHQ scores not discussed.
5. Hodgkins, Rose & Rose (2005) (UK)	Quasi-Experimental Pre-and-post-intervention measures (no control group)	46 ID residential care staff	Demands & Support Questionnaire (Rose, 1999). Staff support questionnaire (Harris & Rose,	One day workshop to develop goals/ interventions; person-centred planning training, counselling training,	Anxiety, emotional exhaustion and perceived demands (work pressure & resident interaction) all	Collaborative intervention design with staff members. Follow-up meetings after the intervention	The workshop and specific interventions lacking sufficient detail to replicate. No control group.

			2002). The Team Climate Inventory (Anderson & West, 1999). Maslach Burnout Inventory (MBI; Maslach, Jackson & Leiter, 1996). Anxiety measure (Fletcher et al., 1991).	improving communication between management & staff, regular staff meetings.	displayed significant reduction at follow-up.	to help review and develop.	No power calculation or effect sizes.
6. Noone & Hastings (2009) (UK)	Quasi-Experimental Pre-and-post-intervention measures (control group – waiting list)	28 ID community staff	General Health Questionnaire (GHQ-12; Goldberg, 1978). Staff stressor questionnaire (Hatton, Rivers, Mason, Mason, Kiernan et al., 1999).	Nine hours of training split into three, 3 hour sessions on Promotion of Acceptance in Carers and Teachers (PACT). Based on Acceptance and commitment therapy (ACT) and mindfulness.	Distress reduced in intervention group, however reports of stressors increased. No changes in the control group.	Partially manualised intervention with reference to programme thus replication possible. Consideration given to reasons for numbers lost at follow-up. Effect sizes provided for GHQ reduction; medium effect ($d = 0.51$).	Not randomised. Small sample meant between group differences were not explored for control and intervention groups.

7.Noone & Hastings (2010) (UK)	Quasi-Experimental Pre-and-post-intervention measures (No control group)	20 ID residential care staff (Added to the original data set of 14 intervention group, from Noone & Hastings, 2009). Total 34.	Demographic questionnaire. General Health Questionnaire (GHQ-12; Goldberg, 1978). Staff stressor questionnaire (Hatton et al., 1999).	Nine hours of training on Promotion of Acceptance in Carers and Teachers (PACT). Based on Acceptance and commitment therapy and mindfulness.	Significant decrease in GHQ (psychological distress) scores after intervention. No significant reduction in stressors after intervention.	Authors acknowledge lack of controlled analysis or randomisation. Effect sizes detailed; medium effect for GHQ reduction ($d = 0.48$).	The original sample received the intervention at different time and no fidelity discussed. No control group.
8. Bethay, Wilson, Schnetzer, Nassar & Bordieri (2013) (USA)	Experimental Pre-, post- and 3month follow-up intervention measures (1 experimental group & control group with different intervention)	34 ID residential care staff	General Health Questionnaire (GHQ-12; Goldberg, 1978). Maslach Burnout Inventory (MBI; Maslach, et al., 1996). Burnout Believability Scale. Social Validity Survey.	Experimental group had 6 hours of ACT Training combined with 3 hours of Applied Behavioural Analysis & the control group had 9 hours of Applied Behavioural Analysis only.	Lack of significant findings for outcome measures. ACT participants who displayed higher psychological distress at baseline showed greater reductions at follow-up. Decrease in burnout thoughts in ACT group at follow-up.	Explored between-groups differences. Control group received an intervention. Longer term follow-up at 3 months. Large effect size detailed ($d = 0.87$).	Results not normally distributed. Power limited. Additional unplanned analyses were conducted due to non-significant findings.
9.Ingham, Riley, Nevin, Evans &	Quasi-	37 ID care staff	Emotional responses to	A resilience workshop with	Experimental group displayed	The comparison group received	Between group differences for

Gair (2013) (UK)	Experimental Pre-and-post-intervention measures (Control group – generic training)		aggressive challenging behaviour (Mitchell & Hastings, 1998). MBI (Maslach et al., 1996). Helpful Aspects of Workshop Questionnaire (adapted from Milne & Noone, 1996).	cognitive behavioural and acceptance and commitment approach. Developed an action plan at peer and organisation level within workshop. Control group had generic ID training.	significantly less negative emotional responses. No significant changes in burnout in the experimental group. The control group showed no change. The helpful aspects of workshop questionnaire displayed positive feedback from participants.	training. Acknowledged different levels of qualifications between groups and accounted for this by reporting group means. Power calculated. Medium effect size ($d = 0.70$).	experimental and control group not analysed. Post-intervention action plan not detailed.
10.Van Oorsouw, Embregts, Bosman & Jahoda (2013) (Holland)	Quasi – Experimental Pre-and-post-intervention measures (control group). A six week follow-up for intervention group only.	62 ID residential and day centre care staff	The authors designed a written assignment for personal stress management.	Four days training: Incorporating ACT techniques, relaxation, transference, biofeedback and stress physiology.	Qualitative findings at the pre-intervention stage were categorised (content analysis) into stress signals, stress triggers and coping strategies. Quantitative	Fidelity monitoring of the intervention. Quantitative and Qualitative analysis completed. Post hoc testing was completed. Control group received the	Validity was not reported for the main outcome measure. Fidelity not discussed in detail. Not clear whether parametric assumptions were met. No power calculation

					analysis (ANOVA) identified significant changes in the written assignment from stress signals to coping strategies post-intervention, maintained at follow-up. No such changes in control group.	intervention after the study.	or effect sizes.

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Collaborative Intervention Approaches

Gardner and Rose (1994) were approached to support an ID day centre staff group with stress-related problems. A number of interviews were carried out with staff members to understand the context of the problem. The interview structure was not detailed nor the selection method or number of staff that took part. The main finding from the interviews was that staff reported difficulty in supporting an increasingly challenging client group. Following the interviews the authors then designed a non-validated stress questionnaire. The questionnaire was used to measure perceptions and attitudes towards stress, ways of coping, sources of satisfaction and job rewards. The analysis of this questionnaire, which was not detailed, enabled the authors to design three intervention sessions that were agreed with staff. Replication of this process would be difficult as details of the interview and questionnaire and clear procedures were not provided. The depression and anxiety scales from the standardised Thoughts and Feelings Index (Fletcher et al., 1991) were also employed alongside the non-validated survey to measure the effects of stress. This survey acted as a pre-and-post-intervention questionnaire to measure any changes due to the intervention in this quasi-experimental study.

A stress reduction intervention was designed and agreed with 18 staff members. The intervention comprised three one-hour sessions. Firstly concepts of work stress were introduced, patterns of organisational stress were analysed and individual profiling of stressors undertaken. A week later the second session was held providing feedback on the patterns of organisational and individual stressors. This session encouraged the setting of goals to target specific sources of stress. The three major stressors identified were; organisational structure, workload and home/work interface. The paper listed the goals that the staff team developed, an example being *'identify a quiet place for breaks'*. Session three was aimed at supporting the individuals to reach the goals linked to the three stressors and this was three weeks after session two. No further detail was provided about the intervention sessions.

The initial statistical findings of the Thoughts and Feelings Index scores did not show significant change one week post-intervention. Improvements on the Thoughts and Feelings Index were shown at eight months post-intervention follow-up, however these were not statistically significant. No control group was used as a comparison.

Overall the paper failed to report the statistical findings and tests used with sufficient detail or include power analysis and effect sizes. Effect size can help identify the magnitude of the difference between groups (Clark-Carter, 2003). The study itself lacked detail in the procedures used therefore replication of this study and its findings would be difficult.

Rose, Jones and Fletcher (1998b) utilised an experimental design using pre-and-post-intervention measures and a control group who received no intervention. Thirty-two participants were randomly allocated to one of the groups. The authors based their research on the demands, supports and constraints model of stress (Payne, 1979). The premise is that an increase in demands will cause strain when additional support and coping strategies are not available. The authors provided evidence for collaborative interventions which focus on bespoke problem-solving following assessment of individual and organisational level stressors. The Demands, Supports and Constraints Questionnaire (Rose, 1999) was employed but validity and reliability statistics were not stated. The depression and anxiety scales from the standardised Thoughts and Feelings Index were also used to measure changes post-intervention. Observations were also undertaken of staff and residents pre-and-post the intervention sessions to capture the nature of their interactions.

This study utilised a three session model. Session one began with education around the basic concept of stress, feedback on assessment undertaken and encouragement to problem solve and set goals based on personal and organisational identified stressors. The second session, one hour in duration, 10 weeks later, reviewed the progress towards these goals. A final day session a further 10 weeks later focused on reviewing the goals and setting future plans. The goals are briefly summarised into themes so insufficient detail is given to understand the stressors they are targeting. The goals were themed as internal organisation, relationship between staff and management and the relationship between staff and residents.

The results established that staff anxiety had significantly reduced whilst support had increased up to six weeks post-intervention when comparing the experimental group

with the control group. Effect size was reported as small ($\eta^2 = 0.11$). No significant effect was found for reduction of depression or demands and the analysis of these variables was omitted. The analysis controlled for group differences by using matched pairs of pre-and-post-measures, this was due to participant drop-out. This meant that pre-intervention data for a participant that dropped out would be compared against post-intervention data from a similar participant. Observational findings displayed an increase in available staff, positive and social interactions and helping behaviour in workers after the intervention. The authors suggested that this was one of the few papers which found adapting the working environment improved psychological wellbeing of staff (Rose, Jones & Fletcher, 1998b).

Innstrand et al. (2004) were also concerned with a collaborative intervention at organisational and individual level to try to reduce stress and burnout within 65 staff working in ID services. They employed a pre-and-post-intervention design over a 10 month period and utilised a control group who did not receive an intervention. The service location determined participant allocation to groups. A non-standardised stress questionnaire was devised specifically for the study therefore this may not have provided a valid measurement of stress. The Maslach Burnout Inventory-General Survey (MBI-GS; Schaufeli et al., 1995) was used to measure burnout.

The intervention began with an initial meeting to discuss the findings and emerging priorities from the questionnaires. The study provided a detailed list of the interventions which were designed and agreed by staff members at this initial meeting. The subsequent individual level interventions decided upon were physical exercise and educational seminars. Organisational approaches implemented comprised performance appraisals, reorganisation of work schedules, a buddy system and a training guide. At 10 month follow-up the experimental group displayed a significant reduction in stress and exhaustion and increased job satisfaction, whereas the control group demonstrated the opposite effect. No significant effects were found on measures of cynicism or professional self-efficacy. However no power calculations or effect sizes were detailed in this paper. This study displayed a longer period between pre-and-post-measures which may have allowed for more organisational change to be achieved leading to experimental

group outcomes. Stress and burnout in the control group increased during the study yet the researchers did not state if they offered an intervention to this group retrospectively.

The final collaborative approach was that of Hodgkins et al. (2005). They utilised a pre-and-post-intervention design. Pre-questionnaires were used as the basis to a stress reduction intervention workshop. They consisted of the MBI, the Demands, Supports and Constraints Questionnaire, an anxiety measure (Fletcher et al., 1991) and the Staff Support Questionnaire (Harris & Rose, 2002). A one day workshop enabled staff to design their own strategies and solutions to stressors identified in the workplace. Stress models and stress management techniques were introduced; however these were not detailed in the paper. Subsequent goals were set during the workshop. This paper listed the stressors and some of the general goals derived. Goals included training in person-centred planning and counselling, improved communication between staff and management, regular staff meetings and care plans for the management of challenging behaviour. The authors highlighted that individual goals varied depending on where they were being implemented and by whom. Replication of this workshop would be difficult due to the lack of detail.

The results indicated significant three month post-intervention reductions in anxiety and EE, but no effect sizes were provided. Perceived demands resulting from work pressure and resident interactions were also significantly reduced. No significant findings were noted on DP and PA measures. The remaining support and demand subscales were not significantly different post-intervention. No control group was utilised in this study. Furthermore no power calculations were detailed to identify whether the sample size ($n = 46$) was sufficient for the statistical conclusions.

Acceptance and Commitment Based Interventions

Noone & Hastings (2009) considered emotion focused interventions for staff working in ID settings in order to build psychological resilience to stress. They were interested in the effect of a two day acceptance based intervention on work-related stressors and psychological wellbeing. Acceptance and mindfulness based interventions for stress centre on the individual tolerating difficult and distressing emotions and cognitions. Measures included the validated General Health

Questionnaire (GHQ-12; Goldberg, 1978) and Staff Stressor Questionnaire (Hatton et al., 1999) and these were taken pre-and-post the course. A waiting list control group was also employed. The 28 participants were allocated to groups by '*convenience*' rather than through random assignment. The paper detailed the course outline. Staff wellbeing was seen to significantly increase after the intervention (medium effect size, $d = 0.51$) and perceived stressors showed a non-significant increase. No changes were seen across time for the control group. They acknowledge that the study was not tightly controlled in relation to the use of a control group as random allocation to the groups was not used. Fifty percent of the staff did not attend the second day of the intervention and the authors cited reasons for this such as staff shortages. Furthermore their sample size was small (control group, $n = 6$; intervention group, $n = 28$; follow-up, $n = 14$) and the data did not meet parametric assumptions. Therefore a non-parametric test was utilised and focused on within-group differences. Parametric tests are the most powerful way to assess differences between groups, but the parametric assumptions should be met in order to draw such conclusions from findings (Pallant, 2010).

Noone and Hastings (2010) published a further study which added additional participants to the original data set from their 2009 paper. They utilised the data from the 14 participants who had attended the original intervention and follow-up and combined this with 20 new participant data sets. This was problematic as the participants received the intervention at different time points and fidelity to the intervention was not detailed. No control group was utilised in this study. They found a significant decrease in psychological distress measured by the GHQ-12 (medium effect size, $d = 0.48$) yet no significant reduction in stressors after the intervention.

Noone and Hastings (2010) discuss the theories behind acceptance based interventions in more detail than in the original study (Noone & Hastings, 2009). Acceptance and commitment therapy (ACT) focuses on six core therapeutic processes (Luoma, Hayes & Walser, 2007). Acceptance is one core process, and is the encouragement to embrace life events as opposed to avoiding them. The purpose is to increase flexibility in how one responds to such events. The second process is cognitive defusion, this relates to gaining mindful perspectives on one's

negative thoughts as opposed to trying to change them. Thirdly being present in the moment is a goal of therapy. Furthermore understanding the context of our self in our experiences and therefore what we contribute to our experiences. Value driven therapy is also a core process, including clarification of and commitment to one's values in life. Finally ACT relies on the individual being committed to action regarding the above processes in order for change to occur.

Two further studies similarly explored ACT based interventions for stress reduction (Bethay et al., 2013 & Van Oorsouw et al., 2013). Bethay et al. (2013) compared the use of acceptance and commitment training combined with Applied Behavioural Analysis (ABA) compared to an ABA group alone. ABA uses behavioural concepts to try to understand why people behave in certain ways. It might be that behaviour is reinforced through some kind of reward therefore it is continued. On the other hand one may avoid a particular behaviour if it is punished as a result. This study used a pre-and-post-design with a three month follow-up.

Bethay et al's. (2013) intervention comprised three, three hour sessions at weekly intervals. The ACT group received six hours of ACT training and three hours of ABA. The pure ABA group received nine hours of didactic teaching on the principles of ABA. The authors provided a detailed outline of the intervention sessions. The Maslach Burnout Inventory (MBI), a non-validated Burnout Believability Scale which was an adapted version of the MBI, and the GHQ-12 were measures used in this study. Psychological distress and burnout were not significantly reduced following the intervention. Measures identified that the ACT combined with ABA group were significantly more likely to agree that their interactions with colleagues had improved and that work stress had reduced as a result of the intervention. Further exploratory analyses found that ACT with ABA participants who displayed higher psychological distress at baseline showed significant reductions at follow-up (large effect size, $d = 0.87$). A significant decrease in burnout thoughts was concurrently found in the ACT with ABA group at follow-up when compared to the sole ABA group. However, the sample size was small ($n = 34$) and may partly account for why the data did not meet parametric assumptions. Therefore caution must be exercised in interpreting the group differences, as parametric assumptions should ideally be met to increase the validity of findings (Pallant, 2010).

Van Oorsouw et al. (2013) evaluated the effects of a four day course incorporating elements of ACT and relaxation. They included brief course content with little explanatory information about the course components. They used a pre-and-post-design with a control group who received an intervention when the study was finished. A six week additional follow-up was administered to the intervention group only. Fidelity was conducted for all the training sessions and the same trainers conducted all the sessions as several series of groups received the training. Fidelity was undertaken by observations to ensure the training manual was being followed, though it is unclear what this process entailed. The measure used in this research was designed by the researchers and required participants to write a qualitative narrative account of their stress experiences. They were instructed to write down how they observed, analysed and reacted to stress. The narrative account was then analysed using qualitative and quantitative methodologies. Researchers were blind to group membership when coding the data.

Qualitative content analysis of pre-intervention data categorised responses into the following themes: stress signals (physical, cognitive, emotional and environmental), stress triggers (work, home and personal characteristics), and coping strategies (physical, cognitive, distraction, planning, confrontation and social support). Quantitative analysis identified significant changes in the written account post-intervention. The dominant category for the experimental group at pre-intervention was stress signals and at post-intervention was coping strategies which was maintained at follow-up. No such changes occurred for the control group. It is not clear if the data met parametric assumptions. No power or effect sizes were detailed.

Transactional Model of Stress and Cognitive-Behavioural Interventions
Gardner et al. (2005) and Ingham et al. (2013) focused on the transactional model of stress (Lazarus, 1966). A key element of this model is that cognitive appraisal determines the stress experienced by the individual. A cognitive appraisal such as *"I cannot cope with this, I do not know what to do"* may lead to a greater experience of stress than *"I have had training on this, I know what to do"*. Therefore both these

studies incorporate cognitive and behavioural elements to address cognitive appraisals of stress.

Gardner et al. (2005) investigated this using a pre-and-post-quasi-experimental design. Two experimental groups of staff working in ID services were utilised with the focus on either cognitive therapy or behavioural coping skills and compared these against a waiting list control group. Participants were not randomly assigned to groups and instead were allocated by convenience. Detailed course content for both experimental conditions was provided. The cognitive group content focused on identifying thoughts and then using cognitive strategies to influence thinking in order to reduce the impact of stressors. The behavioural group considered assertion techniques, relaxation, goal planning and problem solving to reduce stress. The course consisted of three, three and a half hour workshops at weekly intervals. Differences between the conditions were controlled and accounted for in the analyses. This study had a large sample size (n = 138) and demonstrated a large effect size (d = 0.81) for the cognitive condition and a medium effect size for the behavioural condition (d = 0.65). The validated Mental Health Professionals Stress Scale (Cushway, Tyler & Nolan, 1996) and the GHQ-12 were used. Stress symptoms were reduced in the cognitive and behavioural groups at the three month follow-up but only in participants showing more distress at baseline. The cognitive group at three month follow-up demonstrated greater improvement in stress reduction.

Ingham et al. (2013) utilised a pre-and-post-quasi-experimental design with an experimental group who took part in a cognitive behavioural workshop combined with an acceptance and commitment approach similar to that in the Noone and Hastings studies (2009; 2010). They also employed a comparison group who received training on supporting individuals with ID; an example topic in this training was person-centred planning.

The content of the workshop that the experimental group undertook is reported, however the duration of it was not made explicit. The workshop ended with the development of an action plan at peer and organisational level. It is not clear when the post-measures were administered. The findings showed that the experimental

group displayed significantly less negative emotional responses after the intervention yet no significant changes in burnout. There were no significant differences on the outcome measures in the comparison group. The measures used were the emotional responses to aggressive challenging behaviour scale (Mitchell & Hastings, 1998) and the MBI. A qualitative post-training evaluation measure demonstrated that the participants were generally positive regarding the workshop. A critique of the analysis is that between-group differences (experimental versus control) were neglected in favour of exploration of within-group differences. Therefore potential significant differences between the experimental group and control group were not explored. This analysis may have been useful to evaluate the effectiveness of the different training approaches. The sample size was moderate (n=37) yet power was calculated and effect sizes were medium ($d = 0.70$) in this study.

Discussion

Summary of Findings

Overall the collaborative interventions demonstrated that they reduced stress and associated variables such as anxiety, EE and demands. Furthermore the collaborative approaches increased job satisfaction and positive support. The collaborative approaches that employed a longer term intervention period (i.e. 10 months) enabled more organisational changes to be implemented concurrent with personal goals. The acceptance based intervention studies demonstrated increased psychological wellbeing and decreased stress. Staff accounts also began to focus more on coping strategies in the ACT group rather than stressors. The cognitive behavioural intervention displayed reductions in negative emotional responses and overall stress, particularly in cases where distress was high at baseline. Cognitive approaches showed the greatest improvements in reducing distress when compared to behavioural.

Limitations

None of the papers were RCTs. A minority of the papers did not have a control group and in the papers that did, they did not randomly assign participants. As mentioned previously random allocation of participants is preferable as it reduces bias in the allocation process. It is worth noting that none of the authors named their studies RCTs. Nonetheless some authors acknowledged the lack of control in the

methodology and recommended future stress management research using an RCT design. Furthermore the issue of replicating some of the studies is problematic as there is a lack of standardisation or detail of the intervention approaches and procedures used.

RCTs for psychological research are not without criticism. Researchers in psychology argue that a RCT can fail to take into account context and participant characteristics (Robson, 2002). The research into stress management that has been discussed, particularly the collaborative approaches, provide a stark contrast to this. The premise of the collaborative approaches to stress reduction was such that stressors are individual to the worker and the organisational context and have been designed specifically to address this. Therefore arguably manualised interventions would not be sensitive to the specific stressors and may not produce useful outcomes in reducing stress or increasing quality of care.

The sample sizes in the papers were generally small (mean sample size = 49). Power and effect size calculations were absent from many of the papers. A sample size calculation should be undertaken to determine the sufficient number required for the analysis to be meaningful (Clark-Carter, 2003). It could be unethical if a researcher does not take into account the number of participants they require and therefore the participant data obtained is not sufficient to be able to draw conclusions from.

Only three of the papers made specific reference to theories of stress. Namely the transactional model incorporating cognitive behavioural theory (Gardner et al., 2005; Ingham et al., 2013) and the demands, supports and constraints model (Rose, Jones & Fletcher, 1998b). The remaining papers either made no reference to specific theory (Gardner & Rose, 1994) or discussed levels of stressors i.e. personal and organisational instead (Hodgkins et al., 2005; Innstrand et al., 2004). Alternatively several papers linked their theoretical intervention approach to stress i.e. ACT constituting an emotionally-focused theory (Bethay et al., 2013; Noone & Hastings, 2009; 2010; Van Oorsouw et al., 2013). Research has suggested interventions for stress should have theoretical underpinnings (Cherniss, 1980a; Devereux et al., 2009a).

The extent to which participant engagement with the stress intervention was discussed or measured varied. This makes it difficult to attribute changes in participants to an intervention if participant engagement in the intervention was not measured. How the studies reported participant losses on follow-up measures varied and this was not always reported. It may have been complicated for many of the studies to measure such engagement due to the individual goal setting, but not impossible. Therefore participant measures could have included self-ratings about the extent to which they engaged in the interventions.

Implications for Clinical Psychologists

This review has implications for how clinical psychologists support staff teams working with individuals with ID. Involvement in training and consultancy of staff is often a role undertaken by clinical psychologists. Providing support and training for care staff to help alleviate stress and promote increased quality of care for service users is pertinent in ID services.

Geurts and Grundermann (1999) suggest that general workplace stress interventions can be categorised as *worker* or *work-orientated* and *primary* or *secondary*. Thus worker interventions are focused on individual or group work whereas work-orientated are aimed at the work environment. Primary pertains to prevention and eliminating stressors and secondary is a reactive approach to the reduction of the effects of stress. Kompier and Cooper (1999) reviewed workplace interventions not specific to ID services and found the majority were aimed at the individual and focused on reduction of the effects. This suggested that neither the prevention of stressors nor the organisational context were being addressed. The papers discussed in this review specific to ID services show that stress management techniques have considered the organisational context and how to prevent burnout. Research has recommended a combination of both individual and organisational elements within stress interventions to increase effectiveness (Innstrand et al., 2002). Furthermore interventions need to focus on prevention of stress as well as reduction. The papers in this review have focused predominantly on reduction of stress. Therefore this has implications for the interventions that clinical psychologists may be facilitating in supporting and training ID staff members in

relation to stress. A preventative, proactive approach to stress management may be a role that clinical psychologists can foster in their consultation with teams. A clinical example may be the use of supervision, training and reflective practice for ID staff.

Cherniss (1980a) proposed guidelines on general workplace interventions, namely that they should be based on stress theory. Devereux et al. (2009a) suggest from their review of the application of work stress theory that intervention approaches should aim to foster positive interactions between service users and staff. They recommend organisational and individual aspects, but also the need to promote resilience in staff to be able to maintain positive interactions. Therefore clinical psychologists need to be aware of the stress theories and their evidence base to consider what is most clinically appropriate when supporting ID staff teams and promoting positive interactions between staff and service users.

Some research has recommended that cognitive-behavioural approaches should underpin general workplace stress interventions (Rose, David & Jones, 2003). The premise of this rests on adapting the individual's perception of the stressor using cognitive-behavioural techniques such as cognitive appraisal, cognitive restructuring and cognitive rehearsal. In addition self-management techniques for anxiety have been proposed by Rose et al. (2003) to help cope with demands and reduce distress. Research discussed in this review (Ingham et al., 2013) used a combination approach by incorporating key elements of ACT and cognitive behavioural principals to successfully reduce stress. Therefore eclectic approaches may have as much effect as single-model interventions.

Areas for Future Research

Two main areas for future research have derived from this paper. Firstly more theoretically driven research is needed in order to understand the processes behind stress experiences for staff in ID services. Devereux et al. (2009a) reviewed the stress literature and found the underlying psychological processes in the development of stress were often neglected. Rose et al. (2003) found links between personality factors and stress levels in ID staff and suggest intervention strategies need to take personality traits of staff into account. Researchers have found correlations between high emotional intelligence and lesser experiences of burnout

in nurses (Gerits, Derksen & Verbruggen, 2004). Howard et al. (2009) recommend research into other mediating cognitive processes between the development of burnout and exposure to stressful violent situations i.e. emotional reactions.

Secondly, there is a need for more controlled designs to understand the effect of stress management programmes for workers. If an RCT is not pragmatic, quasi-experimental papers should still be explicit about what intervention strategies or goals were implemented with sufficient detail for replication. Findings from this review mirror that of Devereux et al. (2009a) which highlighted that few interventions studies have been published for ID staff. Those papers that are in existence have not always robustly or explicitly investigated theoretical perspectives of stress theory. Devereux et al. (2009a) pertain to some intervention studies taking either a macro or micro perspective on reducing stress: the macro approach being on organisation aspects such as supervision, management and support (Innstrand et al., 2004; Rose, et al., 1998b) and the micro focus places more emphasis on supporting the individual worker to develop coping strategies (Gardner et al., 2005). Research in this review has suggested that both approaches have standing. Future research should focus on eclectic theoretical approaches such as the combination of cognitive behavioural theory and ACT at an organisational and individual level. The research in this review has identified that an individual's stress will have an organisational context therefore both levels need to be addressed. Further to this more qualitative research would be beneficial to support quantitative findings and to elaborate understanding. Qualitative approaches using interviews may provide more in depth information around the processes and context that lead to stress development.

Conclusion

This paper has sought to review research articles pertaining to stress reduction interventions for ID staff. The findings from the review suggest that more intervention studies are needed. As a precursor to this, more research is needed to understand the underlying psychological processes involved in the development of stress. The second paper in this thesis seeks to explore the role of emotional intelligence and self-efficacy in the development of stress in the context of ID services. This is intended to discover whether training such skills has a role in future stress management interventions.

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Appendices

Appendix 1 Data Abstraction Sheet

Appendix 2 CASP Checklist

Appendix 3 Downs & Black (1998) Checklist for Measuring Quality

Appendix 1 Data Extraction Sheet

Title:
Authors:
Publication details:

Background to the study:

Aims and objectives:

Sample characteristics:

Population
Setting
Method/design
Sample size
Age and ethnicity
Rate of attrition

Recruitment methods:

Measures:

Procedure/interventions:

Results/findings:

Follow ups:

Commentary/notes:

Strengths:

Limitations:

Appendix 2 CASP Checklist

CASP 11 questions to help you make sense of a trial

How to use this appraisal tool

Three broad issues need to be considered when appraising the report of a

randomised controlled trial:

☐ Are the results of the trial valid? (Section A)

☐ What are the results? (Section B)

☐ Will the results help locally? (Section C)

The 11 questions on the following pages are designed to help you think about these issues systematically. The first three questions are screening questions and can be answered quickly.

f the answer to both is "yes", it is worth proceeding with the remaining questions.

There is some degree of overlap between the questions, you are asked to record a "yes", "no" or "can't tell" to most of the questions. A number of prompts are given after each question. These are designed to remind you why the question is important. Record your reasons for your answers in the spaces provided.

There will not be time in the small groups to answer them all in detail!

(A) Are the results of the review valid?

Screening Questions

1. Did the trial address a clearly focused issue?   ☐Yes ☐Can't tell ☐No

HINT: An issue can be 'focused' In terms of

☐ The population studied

☐ The intervention given

☐ The comparator given

☐ The outcomes considered

2. Was the assignment of patients to treatments   ☐Yes ☐Can't tell ☐

randomised?

HINT: Consider

☐ How was this carried out?

☐ Was the allocation sequence concealed from researchers and patients?

3. Were all of the patients who entered   ☐Yes ☐Can't tell ☐

the trial properly accounted for at its conclusion?

HINT: Consider

☐ Was the trial stopped early?

☐ Were patients analysed in the groups to which they were randomised?

Detailed questions

4. Were patients, health workers and study   ☐Yes ☐Can't tell

personnel 'blind' to treatment?

HINT: Think about

☐ Patients?

☐ Health workers?

☐ Study personnel?

5. Were the groups similar at the start of the trial?   ☐Yes ☐Can't tell

HINT: Look at

☐ Other factors that might affect the outcome such as age, sex, social class

6. Aside from the experimental intervention,   ☐Yes ☐Can't tell

were the groups treated equally?

(B) What are the results?

7. How large was the treatment effect?

HINT: Consider

☐ What outcomes were measured?

☐ Is the primary outcome clearly specified?

☐ What results were found for each outcome?

8. How precise was the estimate of the treatment effect?

HINT: Consider

☐ What are the confidence limits?

C) Will the results help locally?

9. Can the results be applied in your context? ☐Yes ☐Can't tell ☐No (or to the local population?)

HINT: Consider whether

☐ Do you think that the patients covered by the trial are similar enough to the patients to whom you will
apply this?, if not how to they differ?

10. Were all clinically important outcomes ☐Yes ☐Can't tell ☐No considered?

☐ Is there other information you would like to have seen?

☐ If not, does this affect the decision?

11. Are the benefits worth the harms and costs? ☐Yes ☐Can't tell ☐No

☐ Even if this is not addressed by the review, what do you think?

Appendix 3 Downs & Black (1998) Checklist for Measuring Quality

No.	Question	Response
1	Is the hypothesis/aim/objective of the study clearly described? *Must be explicit*	Yes/No
2	Are the main outcomes to be measured clearly described in the Introduction or Methods section? *If the main outcomes are first mentioned in the Results section, the question should be answered no. ALL primary outcomes should be described for YES*	Yes/No
3	Are the characteristics of the patients included in the study clearly described? *In cohort studies and trials, inclusion and/or exclusion criteria should be given. In case-control studies, a case-definition and the source for controls should be given. Single case studies must state source of patient*	Yes/No
4	Are the interventions of interest clearly described? *Treatments and placebo (where relevant) that are to be compared should be clearly described.*	Yes/No
5	Are the distributions of principal confounders in each group of subjects to be compared clearly described? *A list of principal confounders is provided. YES = age, severity*	Yes/No
6	Are the main findings of the study clearly described? *Simple outcome data (including denominators and numerators) should be reported for all major findings so that the reader can check the major analyses and conclusions.*	Yes/No
7	Does the study provide estimates of the random variability in the data for the main outcomes? *In non normally distributed data the inter-quartile range of results should be reported. In normally distributed data the standard error, standard deviation or confidence intervals should be reported*	Yes/No

8	Have all important adverse events that may be a consequence of the intervention been reported? *This should be answered yes if the study demonstrates that there was a comprehensive attempt to measure adverse events*	Yes/No
9	Have the characteristics of patients lost to follow-up been described? *If not explicit = NO. RETROSPECTIVE – if not described = UTD; if not explicit re: numbers agreeing to participate = NO. Needs to be >85%*	Yes/No
10	Have actual probability values been reported (e.g. 0.035 rather than <0.05) for the main outcomes except where the probability value is less than 0.001?	Yes/No
11	Were the subjects asked to participate in the study representative of the entire population from which they were recruited? *The study must identify the source population for patients and describe how the patients were selected.*	Yes/No/ Unable to Determine (UTD)
12	Were those subjects who were prepared to participate representative of the entire population from which they were recruited? *The proportion of those asked who agreed should be stated.*	Yes/No/UTD
13	Were the staff, places, and facilities where the patients were treated, representative of the treatment the majority of patients receive? *For the question to be answered yes the study should demonstrate that the intervention was representative of that in use in the source population. Must state type of hospital and country for YES.*	Yes/No/UTD
14	Was an attempt made to blind study subjects to the intervention they have received? *For studies where the patients would have no way of knowing which intervention they received, this should be answered yes. Retrospective, single group = NO; UTD if > 1 group and blinding not explicitly stated*	Yes/No/UTD

15	Was an attempt made to blind those measuring the main outcomes of the intervention? *Must be explicit*	Yes/No/UTD
16	If any of the results of the study were based on "data dredging", was this made clear? *Any analyses that had not been planned at the outset of the study should be clearly indicated. Retrospective = NO. Prospective = YES*	Yes/No/UTD
17	In trials and cohort studies, do the analyses adjust for different lengths of follow-up of patients, or in case control studies, is the time period between the intervention and outcome the same for cases and controls? *Where follow-up was the same for all study patients the answer should yes. Studies where differences in follow-up are ignored should be answered no. Acceptable range 1 yr follow up = 1 month each way; 2 years follow up = 2 months; 3 years follow up = 3months........10years follow up = 10 months*	Yes/No/UTD
18	Were the statistical tests used to assess the main outcomes appropriate? *The statistical techniques used must be appropriate to the data. If no tests done, but would have been appropriate to do = NO*	Yes/No/UTD
19	Was compliance with the intervention/s reliable? *Where there was non compliance with the allocated treatment or where there was contamination of one group, the question should be answered no.*	Yes/No/UTD
20	Were the main outcome measures used accurate (valid and reliable)? *Where outcome measures are clearly described, which refer to other work or that demonstrates the outcome measures are accurate = YES. ALL primary outcomes valid and reliable for YES*	Yes/No/UTD
21	Were the patients in different intervention groups (trials and cohort studies) or were the cases and controls (case-control studies) recruited from the same population? *Patients for all*	Yes/No/UTD

	comparison groups should be selected from the same hospital. The question should be answered UTD for cohort and case control studies where there is no information concerning the source of patients	
22	Were study subjects in different intervention groups (trials and cohort studies) or were the cases and controls (case-control studies) recruited over the same time? *For a study which does not specify the time period over which patients were recruited, the question should be answered as UTD.*	Yes/No/UTD
23	Were study subjects randomised to intervention groups? *Studies which state that subjects were randomised should be answered yes except where method of randomisation would not ensure random allocation.*	Yes/No/UTD
24	Was the randomised intervention assignment concealed from both patients and health care staff until recruitment was complete and irrevocable? *All non-randomised studies should be answered no. If assignment was concealed from patients but not from staff, it should be answered no.*	Yes/No/UTD
25	Was there adequate adjustment for confounding in the analyses from which the main findings were drawn? *In nonrandomised studies if the effect of the main confounders was not investigated or no adjustment was made in the final analyses the question should be answered as no. If no significant difference between groups shown then YES*	Yes/No/UTD
26	Were losses of patients to follow-up taken into account? *If the numbers of patients lost to follow-up are not reported = unable to determine.*	Yes/No/UTD
27	Did the study have sufficient power to detect a clinically important effect where the probability value for a difference being due to chance <5% Sample sizes have been calculated to detect a difference of x% and y%.	Yes/No

Chapter 2 Empirical Paper

Investigating predictors and moderators of burnout in staff working in intellectual disability services: The role of emotional intelligence, exposure to violence and self-efficacy.

Abstract

Background The first chapter of this thesis sought to review and critique existing stress management interventions for staff working within intellectual disability (ID) services. Further understanding about predictors of burnout could potentially aid interventions for staff. This study sought to understand predictors of burnout for staff in ID services specifically focusing on the moderating effect of emotional intelligence (EI) and self-efficacy.

Methods 86 support staff and professionals working in ID services completed a series of questionnaires about their experiences of violence, burnout (emotional exhaustion, depersonalisation and reduced personal accomplishment), self-efficacy and EI.

Results Exposure to violence and low self-efficacy predicted emotional exhaustion and depersonalisation. Self-efficacy moderated the relationship between exposure to violence, depersonalisation and emotional exhaustion. Emotional intelligence predicted personal accomplishment. Emotional intelligence did not moderate the relationship between violence and burnout.

Conclusions Self-efficacy may potentially protect individuals from the development of burnout whilst working in ID services. Further research is needed into the utility of the construct of EI and exploring the role of staff emotional intelligence in the context of ID services.

Key words: intellectual disabilities, staff, burnout, stress, emotional intelligence, self-efficacy.

Introduction

Rose (2011) considered how the psychological attributes of staff can influence outcomes for people with intellectual disabilities (ID). ID refers to individuals who have cognitive and adaptive functioning impairments and often require support services (World Health Organisation, 2014). It is increasingly recognised that staff in ID services play a pivotal role in the quality of care that individuals receive and therefore more research has focused on how psychological factors in staff, such as their attributions of clients' behaviour, stress levels and attitudes towards clients, affect outcomes for clients in their care (Bailey, Hare, Hatton & Limb, 2006; Dilworth, Phillips & Rose, 2011; Hastings & Brown, 2002; Jones & Hastings, 2003; Phillips & Rose, 2010). This paper is concerned with staff stress and their emotional reactions in the context of exposure to violence in ID services.

Challenging behaviour (CB) and violence are common-place in ID work settings (Strand, Benzein & Saveman, 2004). CB refers to a client's actions that may place them or others in physical danger (Emerson, 2001). Jenkins, Rose and Lovell (1997) found high instances of CB were associated with poorer psychological wellbeing in staff members. Rose and Rose (2005) investigated the interaction between stress and staff attributions of behaviour and the impact of this interaction on staff reactions to CB. They found that greater stress was correlated with negative emotions such as anger and disgust. Emotional reactions pertain to the emotions that staff experience as a result of CB from a client, for example, experiencing fear, anxiety, depression or anger. Rose, Jones and Fletcher (1998) found that when staff stress is greater, fewer positive interactions with clients occur. Staff demonstrated more support, assistance and positive interactions with clients in ID settings where staff reported lower stress levels. Furthermore, there were higher levels of interaction between staff and clients in general. It appears that stress impacts on client-staff interaction, which appears to affect quality of care and staff well-being (Rose, 1997). Therefore, understanding predictors of stress and burnout might help organisations to reduce staff stress levels and subsequently increase quality of care.

Zijlmans, Embregts, Bosman and Willems (2012) were interested in the attributions and emotional reactions to CB and interpersonal styles of staff members in ID services. CB aimed at the environment produced fear and anxiety in staff with

interpersonal styles of control and hostility. The authors suggest this is because CB aimed at the environment, such as throwing a chair, can often cause a threat to the safety of staff members triggering a hostile interpersonal response from those particular staff. Interpersonal styles were defined by the staff-client interactive behaviour inventory (SCIBI; Willems, Embregts, Stams & Moonen, 2010). Lower tolerance and less sociable interpersonal styles of staff have also been significantly associated with higher exposure to physical assaults (Bilgin, 2009). Negative emotional reactions of staff, such as fear and anxiety, have been found to be positively associated with severity and frequency of CB (Lambrechts, Kuppens & Maes, 2009). Lundstrom, Saveman, Eisemann and Astrom (2007) found the most common emotional reactions to violence were powerlessness, feeling insufficient, anger, unhappiness, and feeling violated. Zijlmans et al. (2012) urged further research to consider a dynamic viewpoint of client-staff interactions, taking into account the interaction between client behaviour and staff emotions.

Zijlmans, Embregts and Bosman (2013) suggest that experiencing negative emotions such as fear, anxiety, depression and anger in response to CB can make the staff member vulnerable to burnout. They suggest the accumulation of persistent CB places emotional demands on staff and subsequently increases their stress. Mills and Rose's (2011) research considered cognitive variables in staff and their impact on the relationship between CB and burnout. The cognitive variables they measured included fear of assault and perceptions of CB. Their findings suggested that negative emotions mediated the relationship between CB and burnout. Therefore, high levels of CB and negative emotional responses were associated with higher levels of burnout.

Howard, Rose and Levenson (2009) explored the impact of violence on burnout in staff working with ID clients with CB in both a medium secure and community setting. They discovered that high levels of reported physical and verbal aggression from clients were correlated with higher levels of emotional exhaustion in staff. Emotional exhaustion (EE) relates to the depletion of one's emotional coping resources as a result of the interpersonal demands placed on staff from clients. EE is one facet of burnout along with depersonalisation (DP) and reduced personal accomplishment (PA) (Maslach, 1993). Burnout is typically measured by the Maslach Burnout

Inventory (MBI; Maslach & Jackson, 1993), which is a well-validated and frequently used burnout measure. Maslach's (1993) model of burnout is the operational definition being empirically investigated in this paper.

Hastings and Brown's (2002) research looked at the role of staff knowledge, self-efficacy and causal beliefs about CB in relation to their emotional reactions when faced with CB. Self-efficacy in the context of CB related to staff members' perception of how confident they are in managing the behaviour. Regression analyses found that less efficacy reported by staff predicted a greater chance of negative emotions in response to challenging clients. Howard et al. (2009) found that when self-efficacy was high, the impact of aggression on emotional exhaustion was lessened. Increased self-efficacy also correlated with a greater sense of personal achievement and lower reported stress levels (Howard et al., 2009). Jimmieson (2000) found evidence to suggest self-efficacy moderates stress reactions therefore if self-efficacy is high, stress is reduced.

ID research has considered the extent to which training in positive behaviour support can increase staff knowledge, efficacy, change causal attributions and reduce negative emotional responses with regards to CB (McGill, Bradshaw & Hughes, 2007). The positive behaviour support focused on functional analysis of behaviour to determine appropriate interventions for CB. The hypothesis that negative emotional responses would decrease during the course was supported by a significant reduction in depression and anger. The research highlights how training can influence how staff members deal with CB and this in turn can affect their attributions and emotional reactions. This study recommends further research into training packages to increase staff awareness into the impact of their behaviours whilst supporting clients.

Zijlmans, Embregts, Gerits, Bosman and Derksen's (2011) study is one of the few that explores training staff working with clients with ID in emotional intelligence (EI) skills. EI is seen as distinct yet related to cognitive intelligence (Faguy, 2012). This area of intelligence pertains to recognising and managing one's own emotions and feelings as well as respecting and understanding those of others (Zijlmans et al., 2011). Mayer and Salovey (1997) define emotional intelligence:

Emotional intelligence is the ability to perceive accurately, appraise, and express emotion; the ability to access and/or generate feelings when they facilitate thought; the ability to understand emotion and emotional knowledge; and the ability to regulate emotions to promote emotional and intellectual growth. (Mayer & Salovey, 1997, p10)

There is a suggestion that incidents of CB and violence may be exacerbated by staff members' emotional responses such as anxiety, anger and annoyance, (Bilgin, 2009; Zijlmans et al., 2011) which are often as a result of staff stress and burnout (McGrath, 2013). Zijlmans et al. (2011), therefore, used EI training to help improve emotional and behavioural responses of staff to CB. The areas of emotional intelligence that featured in the training included intrapersonal skills, interpersonal skills, stress management, adaptability and mood (Bar-On, 1997). The findings of Zijlmans et al. (2011) suggest that emotional intelligence improved positively in those staff involved, in particular improvements were seen in general mood, adaptability and stress management. The authors recommended further research into the effect of staff EI and EI training on the behaviours of clients and staff, as few research studies have considered the role of staff EI in the context of ID services. Zijlmans et al. (2013) found that individuals scoring high on EI domains of adaptation and stress management reported less negative emotions and feelings in response to work with ID clients. It would appear, therefore, that increasing stress management and adaptation skills through EI training could reduce and prevent negative emotions towards clients. The potential implications of improving EI are twofold; firstly improving staff wellbeing and secondly improving the support that ID clients receive.

Van Dusseldorp, Van Meijel and Derksen, (2010) considered how it is a professional's role to manage and monitor their emotions but also the emotions of their clients too. They found EI to be higher in their nurse participants when compared to members of the public. EI seemingly plays a role in the interaction between worker and their environment (Nooryan, Gasparyan, Sharif & Zoladl, 2011). It appears that staff members' regulation of their own emotions, thus their EI, can impact on the quality of the relationship between staff and client, especially when it is common to experience anger, pity, fear, irritation and impatience towards clients.

Therefore increasing EI could potentially help staff to understand their clients better as well as understand their own emotional responses to clients. Gerits, Derksen and Verbruggen (2004) found higher levels of EI to be associated with lower levels of burnout in ID staff. Thus EI might mitigate the development of stress. This current paper explores the effect that EI has on staff experiences of stress in the context of ID services and CB. CB was defined for the purpose of this research according to the definition by Winstanley & Whittington (2002) which categorises it as aggressive contact, threats of violence and verbal aggression.

Many of the studies discussed point to more research in attempting to gain further understanding into the impact of staff psychological factors such as emotional reactions (Howard et al., 2009; Lundstrom et al., 2007; Rose & Rose, 2005 & Rose et al., 1998). Howard et al. (2009) suggest looking at the emotional reactions of staff to explore the relationship of violence and burnout further. In summary, this paper hopes to replicate and build on the research undertaken by Howard et al. (2009). Emotional intelligence will be measured in addition to self-efficacy to further explore their influence on the relationship between exposure to violence and burnout. This article hopes to contribute to the scarce research literature as accentuated by Ziljmans et al. (2011) surrounding the implications of staff emotional intelligence in ID settings. Emotional intelligence may potentially play a key role in the future prevention of stress and burnout. Whereas many previous studies have focused on nurses (Gerits, et al., 2004; Van Dusseldorp et al., 2010; Winship, 2010), this study has broadened that focus by considering the role of EI in all professionals working in ID services.

Aims

The aim of this research was to explore predictors of burnout and the potential moderating role of emotional intelligence and self-efficacy on the relationship between exposure to violence and subsequent burnout levels in staff members in an ID setting.

Hypotheses

1. Higher exposure to violence, lower emotional intelligence, and lower self-efficacy predict staff burnout.

2. Emotional intelligence moderates the relationship between exposure to violence and staff burnout.

3. Self-efficacy moderates the relationship between exposure to violence and staff burnout.

Materials & Methods

Design & Procedure

This study used a cross-sectional design. Several self-report questionnaires were completed by staff working in ID residential settings at one time point. The research was carried out at four private or charitable organisations providing residential support for adults with ID. The staff members at the services approached were provided with information regarding the research, which was disseminated to them during team meetings prior to being asked to participate. The information packs included an information sheet, consent form and questionnaires in order for potential participants to have time to read and consider whether to participate (Appendix 1). The questionnaires took an average of 20 minutes to complete. Those that participated signed the consent form, completed the survey either at work or home and returned them to their manager or the researcher in a sealed envelope. The consent forms were detached from completed questionnaires to ensure anonymity.

Participants

Those approached worked in a direct supportive and therapeutic role with adults with ID. Therefore they were employed to work with the service users directly rather than in administrative, catering or maintenance roles for the organisations. A total number of 200 questionnaires were distributed and 86 were returned (a response rate of 43%). Participants included 55 women and 31 men and the age range was 21 – 63 years (Mean = 39.7, SD = 13.7). Participant demographics and descriptive statistics can be seen in Table 1 and Table 2.

Table 1 Demographic data: Gender and profession

		n	Percentage (%)
Gender	Female	55	63.95
	Male	31	36.05
Profession	Senior Support Worker	13	15.12
	Support Worker	53	61.63
	Speech & Language	1	1.16
	Psychologist	3	3.49
	Tutor/ Teacher	1	1.16
	Nurse	1	1.16
	Occupational Therapist	3	3.49
	Psychiatrist	2	2.33
	Manager	8	9.30
	Social Worker	1	1.16

Table 2 Demographic data: Age, length of time in professional role, time at the organisation and time working with ID clients

	Mean	SD	Range	n
Age (years)	39.7	13.7	21 – 63	86
Time in professional role (months)	69.0	73.7	1 – 384	86
Time at organisation (months)	54.8	64.5	1 – 385	86
Time working with ID clients (months)	76.4	71.7	1 – 385	86

Measures

The participants were asked to provide demographic characteristics such as age, gender, profession, years in profession, years at the organisation and years working with ID clients along with the following scales:

Violence Scale (Howard et al., 2009; definitions by Winstanley & Whittington, 2002). This scale was replicated from Howard et al. (2009). Participants were asked to rate the frequency of (i) aggressive contact, (ii) threats of violence and (iii) verbal aggression experienced over the previous four weeks. Answers for the three types of violence were categorised as: *0 times, 1-2 times, 3-4 times, 5-6 times, more than 6 times.* These response items corresponded respectively to a Likert scale of one to five. This provided a total aggregated exposure to violence score. The maximum score that could be obtained on this scale was 15, the minimum was three, denoting no violence experienced. Cronbach's Alpha coefficient of the scale was 0.9. Coefficients above 0.7 are desirable (Pallant, 2010).

Difficult Behaviour Self-Efficacy Scale (Hastings & Brown, 2002). This scale consists of five items rated on a seven-point Likert scale. The scale measures perceived self-efficacy when faced with CB. An example item is "*How confident are you in dealing with the challenging behaviours of the clients you support?*" Answers are rated on a scale ranging from *not confident at all* (1) to *very confident* (7). The maximum score that can be obtained is 35 denoting high self-efficacy. This scale had good internal validity and re-test reliability (Cronbach's Alpha = 0.94, Hastings & Brown, 2002). Cronbach's Alpha coefficient for the current data set was sufficient at 0.83.

Abbreviated Maslach Burnout Inventory (aMBI, Maslach & Jackson, 1993). This scale comprises nine items and three subscales; emotional exhaustion (EE), as defined previously, depersonalisation (DP) and personal accomplishment (PA). DP relates to feeling and acting impersonally towards clients and PA relates to the extent that work is fulfilling one's aspirations. The scale measures perceived levels of burnout in staff members. There are three subscale scores produced; an overall score is not calculated for this measure. Each scale has a maximum score of 18. Respondents were asked to rate their answers on a seven-point Likert scale. An example item is "*I feel emotionally drained from work.*" The seven response options were; *never* (0), *a few times a year or less* (1), *once a month or less* (2), *a few times a month* (3), *once a week* (4), *a few times a week* (5) *and every day* (6). Higher scores on EE and DP and lower scores on PA are associated with a higher likelihood of burnout. Although un-validated, factor analysis confirmed the presence of the

three subscales on this abbreviated scale (McManus, Winder & Gordon, 2002). Cronbach's alpha coefficients were calculated for each scale using the current data set. The coefficients for EE, DP and PA were 0.78, 0.75 and 0.71 respectively. The inter-item correlations on these subscales also demonstrated strong relationships between the items.

Trait Emotional Intelligence Questionnaire – Short Form (TEIQue-SF, Petrides & Furnham, 2006). The TEIQue-SF is a 30-item questionnaire measuring global trait emotional intelligence. Trait emotional intelligence pertains to an individual's perception of their emotions and how they cope with them. It is therefore suited to a self-report measure (Petrides, 2011). Respondents rate their responses on a seven-point Likert scale. An example item is "*Expressing my emotions with words is not a problem for me."* The rating scale ranged from *completely disagree* (1) to *completely agree* (7). A maximum score of 210 can be obtained reflecting high EI. Items in the short form were selected from the longer version based on correlations to ensure validity of the construct. The short form has demonstrated good psychometric properties. Factor analysis displayed sampling adequacy as 0.89 and Cronbach's alpha at 0.88 and 0.87 for men and women respectively (Cooper & Petrides, 2010). Internal consistency of this scale was calculated using the current data set and Cronbach's alpha coefficient was 0.82; demonstrating good reliability.

Ethics

Ethical approval was granted by Staffordshire University (Appendix 2). Governance procedures within the organisations were also followed and permission was granted for the research. The information sheet provided to participants detailed the nature of what was expected of them in order to ensure potential participants could make an informed decision regarding participation. The information sheet reminded participants of their right to withdraw from the research and how participants could request the removal of their data from the study. Additionally, available support mechanisms were highlighted to participants in case the questionnaire caused distress.

Analysis

Data were analysed using SPSS Statistics 21 software (IBM Corp, 2012). The data resulted in an overall score for each of the various subscales. Power calculations using Gpower (GPower; Faul, Erdfelder, Buchner & Lang, 2009) to achieve power of 0.80 (Cohen, 1988) with an alpha value of 0.05 for a medium effect size (0.15) required 85 participants for regression   This is a comparable sample size to similar research studies (Devereux, Hastings, Noone, Firth & Totsika, 2009; Howard et al., 2009).   An initial standard multiple regression was conducted to explore the predictors of burnout.   A hierarchical regression model explored the potential moderating effect of emotional intelligence and self-efficacy on the relationship between exposure to violence (predictor variable) and the dependent (criterion) variable of burnout. According to Baron and Kenny (1986) a moderator is a variable that affects the strength of relationship between two other variables. Therefore the relationship between two variables differs depending on the level of the moderator variable (Howitt & Cramer, 2011). Missing data analyses were conducted and it was not necessary to remove any participant data sets or influential outliers.

The statistical assumptions required for a regression analysis were checked. These included normality, linearity and homoscedasticity. The only variable to significantly violate any of these assumptions was the variable of depersonalisation, which was positively skewed (Appendix 3) and violated normality. This suggests that the distribution of the sample was significantly different from a normal distribution (Field, 2005). Therefore, caution is given to the interpretation and generalisation of the findings in relation to DP. Bootstrapping is a re-sampling method which estimates confidence intervals for indirect effects providing a sampling distribution when normal distribution is significantly violated (MacKinnon, Lockwood & Williams, 2004). Hence bootstrapping was performed and reported alongside the regression models where predictors of DP were being explored due to the violation of normality. Multi-collinearity was checked using the tolerance and variance inflation factor statistics to ensure that the variables were not measuring the same concepts; multi-collinearity was not present.

Results

Means, standard deviations and the ranges for each variable are detailed in Table 3. In relation to the burnout variables, medium levels of EE were experienced (mean = 7.44, SD = 4.37). Low levels of depersonalisation were reported (mean = 1.09, SD = 1.97) and high levels of personal accomplishment (mean = 13.47, SD = 3.69). The mean score on the EI measure was high and there was a large standard deviation (Mean = 158.08, SD = 21.55). The mean for self-efficacy was relatively high (Mean = 27.08, SD = 4.54). Reported exposure to violence scores were moderate (Mean = 7.13, SD = 3.99).

Table 3 Means, standard deviations and ranges for the dependent variable (EE, DP & PA) and the predictor variables (Violence, Self-Efficacy and EI)

	Mean	*SD*	*Minimum*	*Maximum*
EE	7.44	4.37	0	18
DP	1.09	1.97	0	11
PA	13.47	3.69	0	18
Violence	7.13	3.99	3	15
Self-Efficacy	27.08	4.54	15	35
EI	158.08	21.55	77	191

Note: EE: Emotional Exhaustion, DP: Depersonalisation, PA: Personal Accomplishment (aMBI, Maslach & Jackson, 1993); Violence (Howard et al., 2009); Self-Efficacy (Hastings & Brown, 2002); EI: Emotional Intelligence (TEIQue-SF, Petrides & Furnham, 2006).

Correlations

Pearson's product-moment correlations between the variables are detailed in Table 4. Emotional exhaustion was moderately positively correlated with depersonalisation ($r = 0.472$, $p < 0.01$), weakly positively correlated with exposure to violence ($r = 0.228$, $p < 0.05$) and weakly negatively correlated with self-efficacy ($r = -0.263$, $p < 0.05$) and emotional intelligence ($r = -0.227$, $p < 0.05$). Therefore, participants with high EE had greater reported levels of DP and exposure to violence, and lower

reported self-efficacy and EI. Depersonalisation was moderately positively correlated with exposure to violence (r = 0.312, p < 0.05) and moderately negatively correlated with self-efficacy (r = -0.341, p < 0.01). Therefore those reporting high DP had higher exposure to violence and lower self-efficacy. Personal accomplishment was moderately positively correlated with emotional intelligence (r = 0.380, p < 0.01). This meant that those reporting higher levels of PA also reported higher levels of EI.

Table 4 Pearson's correlation matrix for the dependent variable (EE, DP & PA) and the predictor variables (Violence, Self-Efficacy and EI)

	EE	DP	PA	Violence	SE	EI
EE	-	0.472**	-0.123	0.228*	-0.263*	-0.227*
DP		-	-0.098	0.312*	-0.341**	-0.062
PA			-	-0.034	0.062	0.380**
Violence				-	0.001	-0.094
Self-Efficacy					-	0.015
EI						-

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

Note: EE: Emotional Exhaustion, DP: Depersonalisation, PA: Personal Accomplishment (aMBI, Maslach & Jackson, 1993); Violence (Howard et al., 2009); SE: Self-Efficacy (Hastings & Brown, 2002); EI: Emotional Intelligence (TEIQue-SF, Petrides & Furnham, 2006).

Multiple Regression Analyses: Predictors of Burnout

Standard multiple regression analyses were conducted for EE, DP and PA (dependent variable) to identify predictors of burnout. All variables were initially added into the model: gender, age, time in role, time working with ID clients, time at organisation, self-efficacy, violence and emotional intelligence. The demographic variables were included to explore any confounding effects, the only identified effect was male gender predicted higher DP (Appendix 4). Standard multiple regression analyses were then repeated with only the predictor variables (self-efficacy, EI and exposure to violence) loaded into the model. Regression coefficients for each of the

three dependent variables: EE, DP and PA, and the predictor variables, are reported in tables 5, 6 and 7.

Table 5 Standard multiple regression for emotional exhaustion (dependent variable): Unstandardised and standardised coefficients and significance levels for self-efficacy, exposure to violence and emotional intelligence as predictors of EE

	B	*SE B*	*β*	*Sig.*
Constant (EE)	19.128	4.313		0.000
SE	-0.251	0.097	-0.260	0.012*
EI	-0.041	0.021	-0.203	0.049*
Violence	0.228	0.111	0.209	0.043*

* $p < 0.05$

Note: R^2 = .162, Adjusted R^2 = .132.

Significant predictors of EE were self-efficacy, emotional intelligence and exposure to violence. This model accounted for 16.2% (R^2) of the variance in EE, 13.2% (R^2 Adjusted) when adjusted. The model was significant $F_{(3, 82)} = 5.391$, $p = 0.002$. Therefore greater exposure to violence, lower self-efficacy and lower emotional intelligence predicted higher EE.

Table 6 Standard multiple regression for depersonalisation (dependent variable): Unstandardised and standardised coefficients, significance levels and confidence intervals for self-efficacy, exposure to violence and emotional intelligence as predictors of DP with bootstrap comparisons

	Standard Multiple Regression						Bootstrapping				
	B	*SE*	*β*	*Sig.*	95% CIs		*Bias*	*SE*	95% CIs		*Sig.*
					Lower	Upper			Lower	Upper	
Constant	4.429	1.886		0.021	0.678	8.180	0.100	1.570	1.444	8.215	0.007
SE	-0.148	0.043	-0.341	0.001**	-0.233	-0.064	0.000	0.049	-0.259	-0.055	0.007**
EI	-0.003	0.009	-0.028	0.774	-0.021	0.015	-0.001	0.007	-0.017	0.009	0.701

Violence	0.153	0.049	0.309	0.002**	0.056	0.249	-0.001	0.066	0.038	0.282	0.031*

* $p < 0.05$ ** $p < 0.01$

Note: R^2 = .214, Adjusted R^2 = .186. CIs: Confidence Intervals.

Bootstrap results are based on 1000 bootstrap samples.

Significant predictors of DP were exposure to violence and self-efficacy. This model accounted for 21.4% (R^2) of the variance in DP, 18.6% (R^2 Adjusted) when adjusted. The model was significant $F_{(3, 82)}$ = 7.456, $p < 0.001$. Bootstrapping was performed for the DP regression due to the normality violation. Bootstrap confidence interval comparisons were similar to the regression model and provided robust coefficients (Table 6). Therefore greater exposure to violence and lower self-efficacy predicted greater DP.

Table 7 Standard multiple regression for personal accomplishment (dependent variable): Unstandardised and standardised coefficients and significance levels for self-efficacy, exposure to violence and emotional intelligence as predictors of PA

	B	*SE B*	*β*	*Sig.*
Constant (PA)	1.952	3.668		0.596
SE	0.046	0.083	0.057	0.579
EI	0.065	0.018	0.379	0.000***
Violence	0.001	0.094	0.001	0.991

*** $p < 0.001$

Note: R^2 = .148, Adjusted R^2 = .116.

The sole significant predictor of PA was emotional intelligence (Table 7). This model accounted for 14.8% (R^2) of the variance in PA, 11.6% (R^2 Adjusted) when adjusted. The model was significant $F_{(3, 82)}$ = 4.734, p = 0.004. Higher emotional intelligence predicted higher PA.

In summary: low self-efficacy and exposure to violence were significant predictors of both EE and DP but not PA, and emotional intelligence was a significant predictor of PA and EE. These findings provide partial support for hypothesis one that lower self-efficacy and higher exposure to violence predicts stress and higher emotional intelligence reduces stress.

Hierarchical Regression Analyses: Moderators of Burnout

Hierarchical regression was conducted to explore the potential moderating effects of self-efficacy and emotional intelligence on EE, DP and PA. If the interaction terms are significant a moderated relationship is found. The significant moderator relationships are reported.

Table 8 Hierarchical multiple regression for emotional exhaustion (dependent variable): Unstandardised and standardised coefficients and significance levels for violence and self-efficacy and the interaction of violence and self-efficacy as predictors of EE

Model	*B*	*SE B*	*β*	*Sig.*
Model 1 Constant (EE)	1.008	0.102		1.00
Violence	0.228	0.103	0.228	0.030*
Self-Efficacy	-0.263	0.103	-0.263	0.012*
Model 2 Constant (EE)	0.00	0.100		0.999
Violence	0.254	0.102	0.254	0.014*
Self-Efficacy	-0.251	0.101	-0.251	0.015*
Interaction	-0.209	0.099	-0.214	0.038*

* $p < 0.05$

Note: Model 1 $R^2 = 0.121$, Model 2 Adjusted $R^2 = 0.136$.

Self-efficacy was found to moderate the relationship between EE and exposure to violence as its interaction term was significant $F(1,82) = 4.4$, $p = 0.038$ (Table 8). The proportion of variance explained by the moderator or interaction was 4.5% (R^2 Change). The findings show that exposure to violence is a stronger predictor of EE

when self-efficacy is low. Figure 1 displays the moderator interaction model between the three variables.
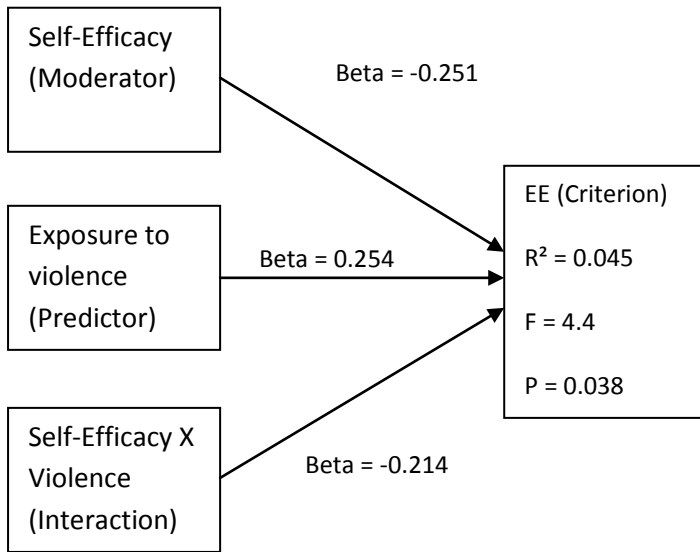

Figure 1 Diagram to show the moderator relationship for self-efficacy and exposure to violence and EE
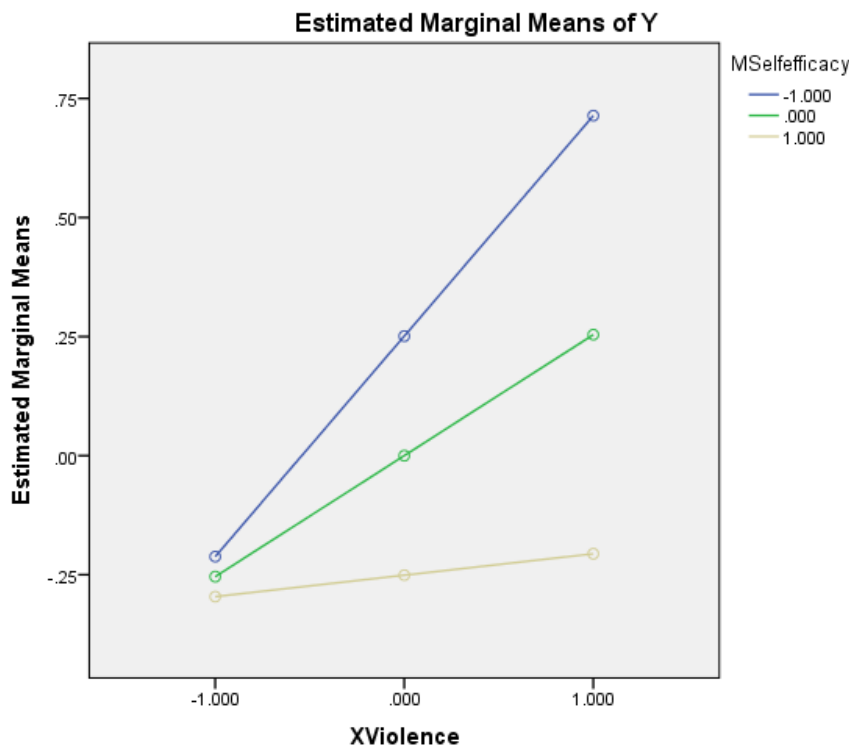

Figure 2 The interaction between exposure to violence and self-efficacy in predicting EE

The graph in Figure 2 shows unstandardised regression lines between standardised violence, standardised self-efficacy and standardised EE at the mean and at one standard deviation above and below the mean. The graph shows that at higher levels of violence (above the mean), higher levels of self-efficacy (above the mean) meant lower levels of EE, whereas at lower levels of self-efficacy (below the mean) EE was higher.

Self-efficacy was also found to moderate the relationship between DP and exposure to violence as a significant interaction term was found $F(1,82) = 18.85$, $p < 0.001$ (Table 9). The proportion of variance explained by the moderator or interaction was 14.7% (R^2 Change) (Figure 3). Bootstrapping was also performed for criterion variable DP and is detailed in Table 9 alongside the moderator regression. The bootstrap figures are more robust yet they are similar to the regression model. Therefore exposure to violence is a stronger predictor of DP when self-efficacy is low.

Table 9 Hierarchical multiple regression for depersonalisation (dependent variable): Unstandardised and standardised coefficients, significance levels and confidence intervals for violence and self-efficacy and the interaction of violence and self-efficacy as predictors of DP with bootstrap comparisons

Model	Hierarchical Multiple Regression						Bootstrapping			
	B	*SE*	*β*	Sig.	95% CIs		*Bias*	*SE*	95% CIs	
					Lower	Upper			Lower	Upper
Model 1 (DP) Constant	1.012	0.097		1.00	-0.192	0.192	0.001	0.099	-0.184	0.208
Violence	0.312	0.097	0.312	0.002**	0.118	0.505	-0.002	0.131*	0.073	0.574
SE	-0.341	0.097	-0.341	0.001**	-0.535	-0.148	0.002	0.105**	-0.559	-0.137
Model 2 (DP) Constant	0.000	0.088		0.998	-0.174	0.175	-0.005	0.089	-0.171	0.168
Violence	0.360	0.089	0.360	0.000***	0.183	0.537	-0.014	0.122*	0.101	0.579
SE	-0.319	0.088	-0.319	0.001**	-0.495	-0.144	-0.002	0.090**	-0.507	-0.149
Interaction	-0.377	0.087	-0.387	0.000***	-0.550	-0.204	0.004	0.121**	-0.616	-0.141

* p < 0.05 * * p <0.01 *** p <0.001

Note: Model 1 R² = 0.214, Model 2 Adjusted R² = 0.337. CIs: Confidence Intervals.
Bootstrap results are based on 1000 bootstrap samples.
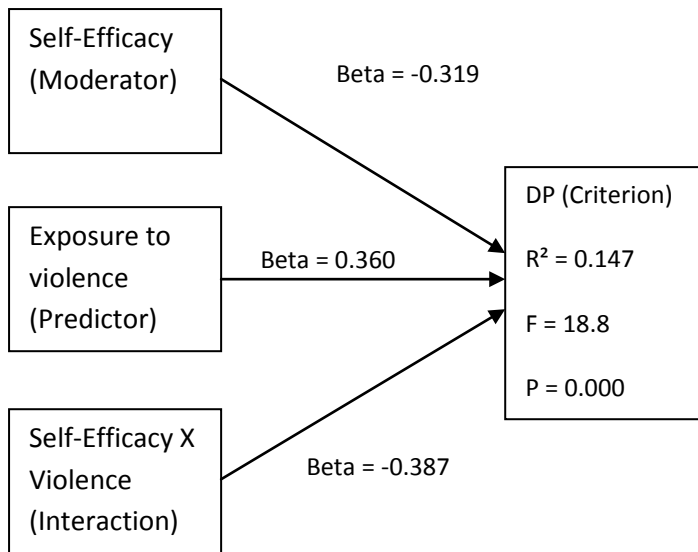
Figure 3 Diagram to show the moderator relationship for self-efficacy and exposure to violence and DP
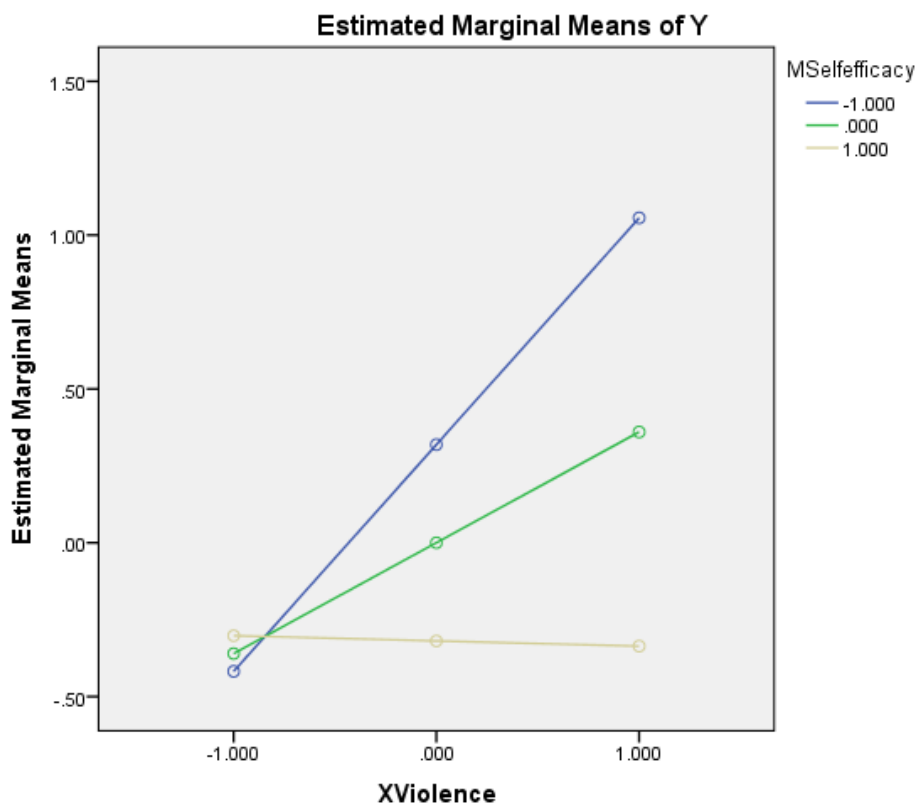
Figure 4 The interaction between exposure to violence and self-efficacy in predicting DP

The graph in Figure 4 shows unstandardised regression lines between standardised violence, standardised self-efficacy and standardised DP at the mean and at one standard deviation above and below the mean. The graph shows that when violence was high (above the mean), higher levels of self-efficacy (above the mean) meant lower levels of depersonalisation, whereas at lower levels of self-efficacy (below the mean) depersonalisation was higher.

Emotional intelligence was not a significant moderator of the effect of violence on EE, DP or PA (burnout) in these analyses; therefore, hypothesis two was not supported. Hypothesis three was partially supported as self-efficacy moderated the relationship between exposure to violence and two of the burnout variables, EE and DP, but not PA.

Discussion

Summary of Findings

The research aimed to investigate the predictors of burnout and the moderating role of emotional intelligence and self-efficacy on the relationship between exposure to violence and burnout in staff in an ID setting. In summary, the results provided evidence that low emotional intelligence, exposure to violence and low self-efficacy predicts EE; and exposure to violence and low self-efficacy predicts DP in staff working in ID services. This supports previous research findings that low self-efficacy is associated with negative emotions following exposure to CB (Hastings & Brown, 2002). Furthermore, it confirms previous findings that exposure to violence correlates with burnout variables (Mills & Rose, 2011). When considering the variance explained by the regression model, emotional intelligence, self-efficacy and violence explained 13.2% of EE and self-efficacy and violence explained 18.6% for DP. Self-efficacy and exposure to violence did not correlate with or predict PA. This could be due to individuals feeling over-qualified in their role, as they may feel they can deal with the violence effectively yet not receive PA from their work. The lack of relationship suggests that other variables contribute to personal accomplishment in one's employment.

In addition to low EI predicting EE, the regression analyses demonstrated that emotional intelligence predicts PA with 11.6% of the variance in PA explained by EI. Gerits et al. (2004) found higher EI to be associated with lower burnout, which is characterised by higher PA. However, emotional intelligence was not found to moderate the relationship between violence and burnout. Further moderator regression analyses identified that self-efficacy moderated the relationship between exposure to violence and DP. This regression model accounted for 14.7% of the variance in DP. Exposure to violence and its relationship to EE was also moderated by self-efficacy accounting for 4.5% variance in the EE variable. Howard et al. (2009) also demonstrated that self-efficacy was a moderator of the relationship between violence and burnout.

Limitations

In this study participants were expected to report their experience of violence during the previous four weeks. A longitudinal measure, which would have accounted for

the quantity of violence experienced over a longer period, may have been more appropriate, particularly as previous research suggests that burnout develops with prolonged exposure to stressors (Maslach & Schaufeli, 1993). Unfortunately, due to the time constraints of this research, a longitudinal design was not possible. Despite this there are limitations to relying on retrospective memories over a long period of time. A further limitation of this research is the use of the short form of the Trait Emotional Intelligence Questionnaire (TEIQue-SF, Petrides & Furnham, 2006) and an abbreviated version of the burnout scale (aMBI; Maslach & Jackson, 1993). Despite both displaying strong psychometric properties, using the full scale versions of these scales would have produced further data on these measures. In the context of the current research, using shorter scales was deemed most appropriate in relation to engaging staff in the research. Staff members were unable to give vast amounts of time to the research; therefore, if the questionnaire demanded greater time the researcher was at risk of not obtaining sufficient participants.

Depersonalisation on the aMBI was the only variable that significantly violated the assumptions of normality. It is possible that socially desirable answering was present on this item. During data collection many participants questioned the meaning and wording of these items which include ideas of being "*callous*" or "*impersonal*" towards clients. It may be due to safeguarding and risk that participants were mindful about how they rated themselves on these scales which could have caused the overall low responses and range on this scale.

Obtaining a sample of participants with varying exposure to CB and violence was necessary to investigate the hypotheses. Therefore the range of professionals involved in this research, by nature, meant that some participants spent a larger amount of time with service users than others. The support staff may predominantly provide direct face-to-face support yet the psychologists, for example, would have other elements to their professional role such as training and/or research. However, different professional training pathways may have influenced emotional intelligence and self-efficacy regardless of exposure to violence. The use of different organisations does not control for the variance in training and organisational support provided to staff to equip them to work with individuals with ID which could have impacted on their responses. The organisations used were all residential settings,

these were deemed appropriate to explore the exposure to CB as such units are commissioned to provide specialist support for challenging clients. Researchers could compare residential settings against other settings (i.e. day services or secure services) with the variables explored in the paper to consider differences.

This study considers trait emotional intelligence that is measured using self-reports (TEIQue-SF, Petrides & Furnham, 2006). Other related concepts such as the emotional and social competence models (Boyatzis & Sala, 2004) and Mayer and Salovey's (1997) emotional intelligence model use ability tests to assess EI performance. The different approaches to emotional intelligence have created confusion around the concept (Cherniss, 2010). Perhaps self-report measures limit what participants report about themselves which may account for why the variable of EI was not found to moderate burnout in this research. These other approaches to capturing emotional intelligence could be used in future ID research concerning its impact on staff and clients.

Future Directions

Overall the results suggest that are there are variables unaccounted for that might help to explain the relationships between these variables further. Therefore consideration could be given to differences between professional groups in how they deal with exposure to violence and the subsequent effects. Particular groups may feel less efficacious in dealing with challenging environments. This may help to concentrate interventions where particular staff groups may require specific support in relation to the prevention of burnout. Future research could also focus on the predictive relationship found between EI and emotional exhaustion and personal accomplishment within this research. It is possible that individuals with higher emotional intelligence may still experience stress yet personal accomplishment protects against burnout. Another direction could be qualitative research methods exploring stress management in ID staff to discover themes and underlying processes from an employee perspective. Quantitative research is often critiqued for an over emphasis on objective measurement and proponents of qualitative research would suggest social behaviour is subjective (Robson, 2002). Therefore qualitative interviews of staff could attempt to understand what subjectively contributes to their levels of self-efficacy in dealing with clients in challenging situations.

Implications for Clinical Psychology

The research has found evidence to suggest that increasing self-efficacy in dealing with violence and CB can moderate negative effects such as burnout, which supports other similar research findings (McGill et al., 2007). Clinical psychologists have a role in working with staff to help increase and train self-efficacy. Providing training to staff in ID services is often a key role for psychologists working in ID inpatient and community services. Lundstrom et al. (2007) found that staff commonly reported having insufficient knowledge to deal with CB in ID clients. This research has contributed to the understanding that equipping individuals with the skills to feel competent when working with individuals with ID could help support staff wellbeing and subsequently increase the quality of care service users receive. Further research could focus on how to increase self-efficacy in staff members.

It was predicted that the outcomes of this study may have provided support for the notion of emotional intelligence training for ID staff. The results demonstrated significant relationships between EI and the burnout components EE and PA from Maslach's (1993) burnout model. This suggests that higher emotional intelligence can prevent EE and promote personal accomplishment which can protect against burnout. Training nurses and physicians in EI skills has been shown to reduce occupational stress and negative health effects (Nooryan et al., 2011). EI training which incorporated stress management also reduced the negative emotional experiences following CB (Zijlmans et al., 2011). The authors of this training research urge aspects of EI to be used in future stress management training packages for clinicians and this may be a role for clinical psychologists to undertake. EI training incorporates interpersonal skills which could help to alleviate the interpersonal demands that can result in EE according to Maslach's (1993) burnout model. This type of skills training may help to reduce stress levels in staff but also further incidence of violence in clients. Therefore further research into EI in ID services is advocated to build upon the findings from this paper.

Conclusion

Attempting to understand predictors of stress and how psychological factors of staff can moderate the negative effects of CB could potentially help organisations to

increase the quality of care provided. As research by Rose (2011) demonstrates, psychological factors in staff can have an impact on the quality of care clients receive. This paper has contributed to the knowledge base that exposure to violence does have significant effects on EE and DP, and self-efficacy could be a key component in protecting against burnout. Therefore understanding how to increase self-efficacy in staff could be a future research project. Chapter three of this thesis provides a reflective account of the research project exploring the decisions which were made during the process.

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Appendices

Appendix 1 Information Sheet, Consent Form & Questionnaire Pack

Appendix 2 Ethical Approval from Staffordshire University

Appendix 3 Scatterplot demonstrating violation of normality in DP variable

Appendix 4 Standard Multiple Regression coefficients for all independent variables
& demographic variables displaying predictors of EE, DP and PA

Appendix 1 Information Sheet, Consent Form & Questionnaire Pack

Participant Information Sheet

Title: The effects of violence and emotions on stress

You are being invited to take part in a research study. Before you decide it is important for you to understand why the research is being done and what it will involve. Please take time to read the following information carefully:

This research is towards a Doctorate in Clinical Psychology. The research has been granted ethical approval from Staffordshire University Ethics Panel. It is concerning factors that may influence staff stress when working with individuals with intellectual disabilities. In particular it is considering staff experiences of violence and their emotional reactions.

Why have I been chosen?

Your employer has agreed to participate in this study. The work is being undertaken within the psychology department of Staffordshire and Keele Universities. Staff working directly with people who have intellectual disabilities have been invited to take part in the study.

Do I have to take part?

It is up to you to decide whether or not to take part. Participation in this study is entirely voluntary and you are not under any obligation to take part. If you do decide to take part you will be asked to sign a consent form. You are still free to withdraw at any point up until you return your completed questionnaire. A decision to withdraw, or a decision to not take part, will not affect your employment.

What will I have to do if I take part?

If you wish to participate you will be asked to fill in a questionnaire. The questionnaire should take no longer than 20 minutes to complete. The questions relate to your experience of violence, stress and your emotional reactions.

Will taking part in this study be kept confidential?

All information which is collected will be kept anonymous and strictly confidential. No identifiable information will be requested and each questionnaire pack will have a participant number written on it. Completed questionnaires will be kept securely in a locked filing cabinet.   The data is being used for the purposes of this study only. Only the researcher, their supervisors and the University will have access to the data.

What will happen to the results of the study?

The results of the study will be used to inform a thesis for a Doctorate in Clinical Psychology. The findings of the study will be made available to research participants and participating services. It is anticipated that the results will be published in a research journal. No participation will be identified in any report or publication.

What if there is a problem?

If you have any concerns, questions or queries about the research study you should contact Jennifer Shead, Trainee Clinical Psychologist by email at Jennifer.shead@nhs.net. If you wish to make a complaint about the research process you can do this by contacting Dr Helen Scott, Senior Lecturer and Research Tutor at Staffordshire University at H.Scott@staffs.ac.uk or (01782) 295785.

You are free to withdraw at any time up until you return your completed questionnaire. As data is kept anonymously, we would be unable to withdraw completed questionnaires once they have been returned.

If you experience distress at any time during the study or are experiencing high level of work-related stress, you can contact your Occupational Health Team or line manager/supervisor at your organisation. In addition the Samaritans (0845 790 9090) provide a safe space to talk about mental health and emotional wellbeing.

Thank you for considering to take part and reading the information sheet.

If you are interested in taking part in the study, you will be required to sign the consent form overleaf and answer the attached questionnaires.

CONSENT FORM

Title: The effects of violence and emotions on stress

Name of Researcher: Jennifer Shead

Please initial box

1. I confirm that I have read and understood the information sheet for the above study. I have had the opportunity to consider the information, ask questions and have had these answered satisfactorily.

2. I understand my participation is voluntary and that I am free to withdraw at any time, without giving reason up until the point when I return the completed questionnaire. I understand that withdrawing from the study will not affect my rights.

3. I agree to take part in the above study.

_____   _____

Signature of Participant   Date

_____   _____

Signature of Researcher   Date

Measures

Demographic Questions

Age_____
Gender: Male ☐ Female ☐
Profession/ Job Title _____
How long have you worked at the organisation?   Years_____Months_____
How long have you worked in your current professional role?   Years_____Months_____
How long have you worked with people with learning disabilities? Years_____Months_____

Violence Scale (Howard et al, 2009; definitions by Winstanley & Whittington, 2002)

Please circle the frequency of your experience of these 3 items in the last 4 weeks:

Levels of Aggressive Contact	0	1-2	3-4	5-6	6+
Threats of Violence	0	1-2	3-4	5-6	6+
Verbal Aggression	0	1-2	3-4	5-6	6+

Difficult Behaviour Self-Efficacy Scale (Hastings & Brown, 2002)

Below are 5 questions that ask about your responses to challenging behaviours displayed by the clients you support. Please read each question, and place a circle around the number on the scale that reflects your own views. *Please select one response for each of the questions:*

1. How confident are you in dealing with the challenging behaviours of the clients you support?	1 Not at all confident	2	3	4	5	6	7 Very Confident
2. How difficult do you personally find it to deal with the challenging behaviours of the clients you support?	1 Very Difficult	2	3	4	5	6	7 Not at all difficult
3. To what extent do you feel that the way you deal with the challenging behaviours of the clients you support has a positive effect?	1 Has no positive effect at all	2	3	4	5	6	7 Has a very positive effect
4. How satisfied are you with the way in which you deal with the challenging behaviours of the clients you support?	1 Not satisfied at all	2	3	4	5	6	7 Very satisfied
5. To what extent do you feel in control of the challenging behaviours of the clients you support?	1 Not in control at all	2	3	4	5	6	7 Very much in control

Abbreviated Maslach Burnout Inventory

These questions are designed to measure burnout, this is the term given to feelings that may be experienced as a result of stressful activity. Please circle the number that feels most appropriate. Only circle one for each item.

	0 Never	1 A few times a year or less	2 Once a month or less	3 A few times a month	4 Once a week	5 A few times a week	6 Every day
I feel emotionally drained from work.	0	1	2	3	4	5	6
I feel fatigued when I get up.	0	1	2	3	4	5	6
Working with clients all day is a strain.	0	1	2	3	4	5	6
I see clients as impersonal.	0	1	2	3	4	5	6
I feel callous toward people.	0	1	2	3	4	5	6
I do not care what happens to clients.	0	1	2	3	4	5	6
I deal effectively with clients' problems.	0	1	2	3	4	5	6
I feel I positively influence others.	0	1	2	3	4	5	6
I feel exhilarated after working with clients.	0	1	2	3	4	5	6

PTO

Emotions Questionnaire

(TEIQue-SF, Petrides & Furnham, 2006)

Instructions: *Please answer each statement below by putting a circle around the number that best reflects your degree of agreement or disagreement with that statement. Do not think too long about the exact meaning of the statements. Work quickly and try to answer as accurately as possible. There are no right or wrong answers. There are seven possible responses to each statement ranging from 'Completely Disagree' (number 1) to 'Completely Agree' (number 7).*

1 . . . . 2 . . . . 3 . . . . 4 . . . . 5 . . . . 6 7

Completely Disagree   *Completely Agree*

Statement							
1. Expressing my emotions with words is not a problem for me.	1	2	3	4	5	6	7
2. I often find it difficult to see things from another person's viewpoint.	1	2	3	4	5	6	7
3. On the whole, I'm a highly motivated person.	1	2	3	4	5	6	7
4. I usually find it difficult to regulate my emotions.	1	2	3	4	5	6	7
5. I generally don't find life enjoyable.	1	2	3	4	5	6	7
6. I can deal effectively with people.	1	2	3	4	5	6	7
7. I tend to change my mind frequently.	1	2	3	4	5	6	7
8. Many times, I can't figure out what emotion I'm feeling.	1	2	3	4	5	6	7
9. I feel that I have a number of good qualities.	1	2	3	4	5	6	7
10. I often find it difficult to stand up for my rights.	1	2	3	4	5	6	7
11. I'm usually able to influence the way other people feel.	1	2	3	4	5	6	7
12. On the whole, I have a gloomy perspective on most things.	1	2	3	4	5	6	7
13. Those close to me often complain that I don't treat them right.	1	2	3	4	5	6	7
14. I often find it difficult to adjust my life according to the circumstances.	1	2	3	4	5	6	7
15. On the whole, I'm able to deal with stress.	1	2	3	4	5	6	7
16. I often find it difficult to show my affection to those close to me.	1	2	3	4	5	6	7
17. I'm normally able to "get into someone's shoes" and experience their emotions.	1	2	3	4	5	6	7
18. I normally find it difficult to keep myself motivated.	1	2	3	4	5	6	7
19. I'm usually able to find ways to control my emotions when I want to.	1	2	3	4	5	6	7
20. On the whole, I'm pleased with my life.	1	2	3	4	5	6	7
21. I would describe myself as a good negotiator.	1	2	3	4	5	6	7
22. I tend to get involved in things I later wish I could get out of.	1	2	3	4	5	6	7
23. I often pause and think about my feelings.	1	2	3	4	5	6	7
24. I believe I'm full of personal strengths.	1	2	3	4	5	6	7
25. I tend to "back down" even if I know I'm right.	1	2	3	4	5	6	7
26. I don't seem to have any power at all over other people's feelings.	1	2	3	4	5	6	7
27. I generally believe that things will work out fine in my life.	1	2	3	4	5	6	7
28. I find it difficult to bond well even with those close to me.	1	2	3	4	5	6	7
29. Generally, I'm able to adapt to new environments.	1	2	3	4	5	6	7
30. Others admire me for being relaxed.	1	2	3	4	5	6	7

Appendix 2 Ethical Approval from Staffordshire University

STAFFORDSHIRE UNIVERSITY

Faculty of Health/Faculty of Sciences

ETHICAL APPROVAL FEEDBACK

Student name:	Jennifer Shead
Title of Study:	Investigating predictors of burnout in staff working within intellectual disability services: exploring the role of emotional intelligence, exposure to violence and self-efficacy.
Award Pathway:	Doctorate in Clinical Psychology
Status of approval:	Approved

Action now needed:

Your project proposal has now been approved by the Faculty's Ethics Panel and you may now commence the implementation phase of your study. You do not need to approach the Local Research Ethics Committee. You should note that any divergence from the approved procedures and research method will invalidate any insurance and liability cover from the University. You should, therefore, notify the Panel of any significant divergence from this approved proposal.

You should arrange to meet with your supervisor for support during the process of completing your study and writing your dissertation.
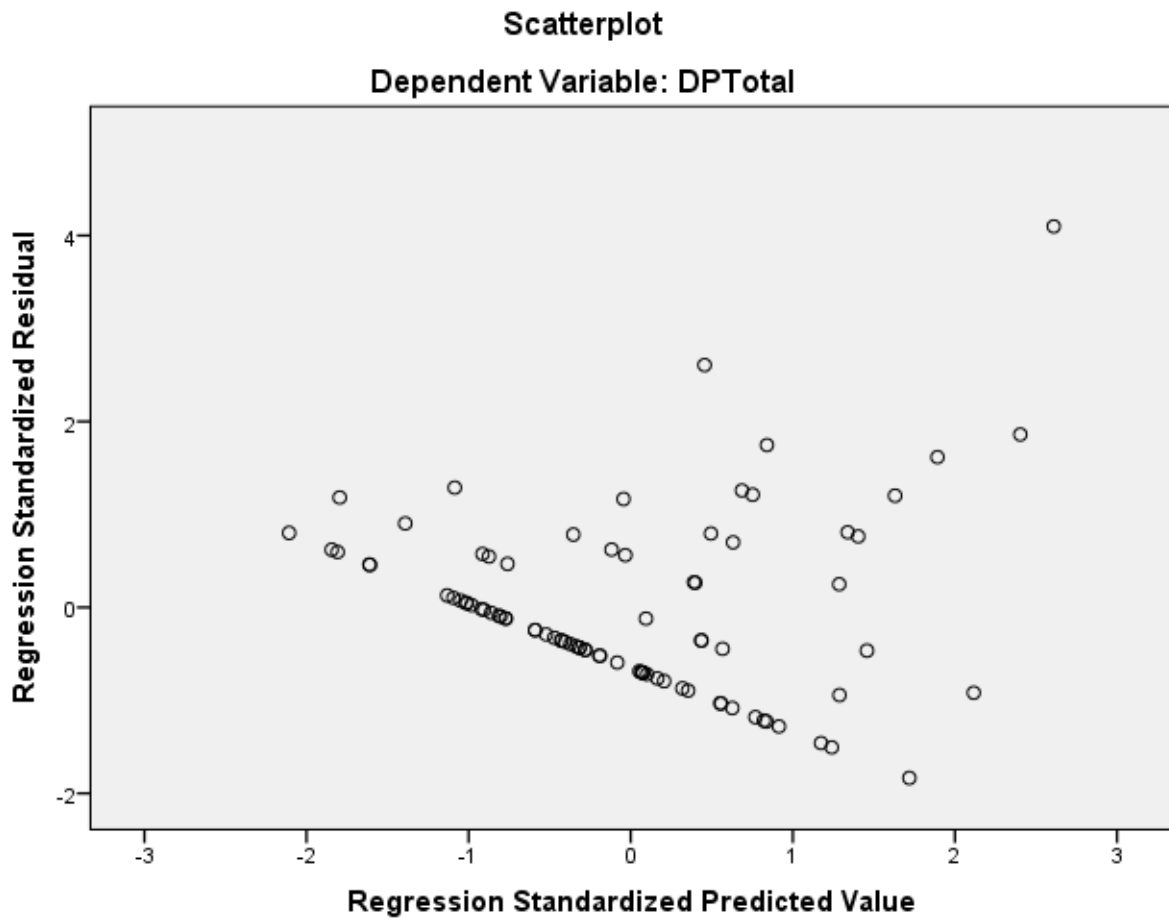
Thank you for forwarding the amendments requested by the Panel

PP

Signed: Dr Mark Forshaw
Chair of the Faculty of Health/Faculty of Sciences
Ethics Panel

Date: 17th October 2012

Appendix 3 Scatterplot demonstrating violation of normality in DP variable

The plots should show a rectangular distribution with no clear pattern (Pallant, 2010). This plot clearly displays a diagonal clustering demonstrating the positive skew and the violation of normality.

Appendix 4 Standard Multiple Regression coefficients for all independent variables and demographics variables for EE, DP and PA

(ia)Table to show: Standard Multiple Regression for Emotional Exhaustion (dependent variable): Unstandardised and standardised coefficients and significance levels for Time in role, Time at organisation, Time working with ID clients, Violence Total, Self-Efficacy Total, EI Total, Gender and Age as predictors of EE

	B	SE B	β	Sig.
Constant (EE)	19.549	4.416		0.000
Time in role	0.016	0.007	0.263	0.035*
Time at organisation	-0.017	0.011	-0.247	0.125
Time in ID	0.021	0.010	0.344	0.043*
Violence total	0.229	0.110	0.209	0.040*
Self-Efficacy Total	-0.251	0.097	-0.261	0.011*
EI Total	-0.037	0.020	-0.183	0.068
Gender	-0.772	0.949	-0.085	0.419
Age	-0.044	0.036	-0.139	0.217

* $p < 0.05$

Note: R^2 = .292, Adjusted R^2 = .219. EI Total, Emotional Intelligence Total (TEIQUE-SF, Petrides & Furnham, 2006)

(ib) Table to show: Standard multiple regression for emotional exhaustion (dependent variable): Unstandardised and standardised coefficients and significance levels for significant predictors (time in role, time working with ID clients, violence and self-efficacy) of EE

	B	SE B	β	Sig.
Constant (EE)	10.916	2.834		0.000
Time in Role	0.012	0.007	0.209	0.073
Time in ID	0.008	0.007	0.135	0.244

	B	SE B		β	Sig.
Violence	0.251	0.108		0.229	0.023*
Self-Efficacy	-0.249	0.098		-0.258	0.013*

* p < 0.05

Note: R^2 = .210, Adjusted R^2 = .171.

Significant predictors of EE were self-efficacy and exposure to violence. This model accounted for 21% (R^2) of the variance in EE, 17.1% (R^2 Adjusted) when adjusted. The model was significant $F_{(4, 81)}$ = 5.38, p = 0.001. Therefore greater exposure to violence and lower self-efficacy predicted higher EE.

(iia)Table to show: Standard Multiple Regression for Depersonalisation (dependent variable): Unstandardised and standardised coefficients and significance levels for Time in role, Time at organisation, Time working with ID clients, Violence Total, Self-Efficacy Total, EI Total, Gender and Age as predictors of DP

	B	SE B	β	Sig.
Constant (DP)	2.960	1.919		0.127
Time in role	0.001	0.003	0.044	0.708
Time at organisation	-0.002	0.005	-0.067	0.666
Time in ID	0.005	0.004	0.175	0.280
Violence total	0.127	0.048	0.257	0.009**
Self-Efficacy Total	-0.146	0.042	-0.336	0.001**
EI Total	-0.006	0.009	-0.067	0.483
Gender	1.220	0.412	0.298	0.004**
Age	0.004	0.016	0.029	0.788

** p < 0.01

Note: R^2 = .344, Adjusted R^2 = .276. EI Total, Emotional Intelligence Total (TEIQue-SF, Petrides & Furnham, 2006).

(iib) Table to show*: Standard multiple regression for depersonalisation (dependent variable): Unstandardised and standardised coefficients, significance levels and confidence intervals for significant predictors (violence, self-efficacy and gender) of DP with bootstrap comparisons

	Standard Multiple Regression						Bootstrapping				
	B	SE	β	Sig.	95% CIs		Bias	SE	95% CIs	
					Lower	Upper			Lower	Upper
Constant	2.158	1.264		0.092	-0.356	4.672	0.047	1.279	-0.186	4.916
SE	-0.138	0.040	-0.138	0.001**	-0.218	-0.059	0.001	0.044**	-0.236	-0.058
Violence	0.128	0.046	0.259	0.007**	0.037	0.219	-0.006	0.054*	0.017	0.235
Gender	1.300	0.381	0.318	0.001**	0.543	2.058	-0.024	0.409**	0.508	2.140

* p < 0.05 ** p < 0.01

Note: R^2 = .311, Adjusted R^2 = .286. SE: Self-Efficacy (Hastings & Brown, 2002). Bootstrap results are based on 1000 bootstrap samples.

Significant predictors of DP were exposure to violence, self-efficacy and gender. This model accounted for 31.1% (R^2) of the variance in DP, 28.6% (R^2 Adjusted) when adjusted. The model was significant $F_{(3, 82)}$ = 12.36, p < 0.001. Bootstrap confidence interval comparisons were similar to the regression model and provided robust coefficients. Therefore greater exposure to violence, lower self-efficacy and being male predicted greater DP.

(iiia)Table to show: Standard Multiple Regression for Personal Accomplishment (dependent variable): Unstandardised and standardised coefficients and significance levels for Time in role, Time at organisation, Time working with ID clients, Violence Total, Self-Efficacy Total, EI Total, Gender and Age as predictors of PA

	B	SE B	β	Sig.
Constant (PA)	3.915	4.033		0.335
Time in role	-0.005	0.007	-0.106	0.426
Time at organisation	-0.004	0.010	-0.068	0.697
Time in ID	0.005	0.009	0.102	0.574
Violence total	-0.017	0.100	-0.018	0.866

	B	SE B	β	Sig.
Self-Efficacy Total	0.034	0.088	0.042	0.700
EI Total	0.061	0.018	0.358	0.001**
Gender	0.074	0.867	0.010	0.932
Age	-0.022	0.033	-0.080	0.510

** p < 0.01

Note: R^2 = .169, Adjusted R^2 = .083. EI Total, Emotional Intelligence Total (TEIQue-SF, Petrides & Furnham, 2006).

(iiib)Table to show: Standard linear regression for personal accomplishment (dependent variable): Unstandardised and standardised coefficients and significance levels for emotional intelligence as a predictor of PA

	B	SE B	β	Sig.
Constant (PA)	3.189	2.754		0.250
EI	0.065	0.017	0.380	0.000***

*** p < 0.001

Note: R^2 = .144, Adjusted R^2 = .134. EI: Emotional Intelligence (TEIQue-SF, Petrides & Furnham, 2006).

The sole significant predictor of PA was emotional intelligence. This model accounted for 14.4% (R^2) of the variance in PA, 13.4% (R^2 Adjusted) when adjusted. The model was significant $F_{(1, 84)}$ = 14.178, $p < 0.001$. Higher emotional intelligence predicted higher PA.

Chapter 3

Commentary and Reflective Review

Abstract

This paper begins with a reflective commentary of the process of undertaking the thesis project. It considers the process of the literature review and the empirical paper, particularly the choice of measures and data collection. The clinical and theoretical implications of the thesis are discussed. Secondly this paper considers the personal reflexive account of the author during the research process. This takes into account the effects of the research on the researcher, the epistemological position of the researcher and the ethical issues encountered.

Reflective Commentary

Literature Review

The author's background of working in intellectual disability (ID) services provided prior experience of working as a researcher on a multi-centre randomised control trial (RCT). This research had then supported the completion of a quantitative Masters dissertation in the field of intellectual disability (Rose, Willner, Shead, Jahoda, Gillespie et al., 2013). The dissertation focussed on the relationship between staff-reports and self-reports of ID clients' anger. Clients' anger ratings were predicted by their mental health and emotional state whereas staff rated anger based on the clients' overt challenging behaviour.

Whilst working in ID support services, the author had been exposed to significant challenging behaviour such as physical assaults and this had had effects on their emotional responses and coping strategies. This had impacted on their confidence when working with ID clients at the time and also their own anxiety and stress levels. Consequently, part of the reason for wanting to undertake research in this area was personal as well as being motivated by an interest in finding out about the effects of such work on ID staff. The author had also subsequently worked with this client group in a psychological role and had enjoyed this. Overall the familiarity with this research area and the clinical experience obtained in ID services influenced the author to pursue a thesis in a similar field. The complexity of the client group and the exposure to certain working conditions, personally experienced by the author, stimulated a literature search.

The literature search began with a focus on staff attributions of challenging behaviour. The search then progressed to experiences of violence and challenging behaviour and its effects on staff. A common variable populated from the research searches was stress experienced by staff. Therefore, the search was widened to the phenomena of stress in ID staff and potential predictors. It became apparent that a substantial amount of research had been dedicated to the pursuit of establishing an understanding of the phenomena of stress in ID staff. It seemed reasonable to conclude that staff stress was a particular concern in ID services due to the volume of research that had been dedicated to this area.

The author initially felt that a literature review focusing on the predictors of stress in ID staff would be a suitable topic for summarising and critiquing given the reported impact on staff of working with challenging behaviour. After completion of the database searches it became apparent that this focus was too broad as the quantity of papers that would need to be reviewed was not suitable. After hand-searching abstracts during initial searches it became apparent that few intervention studies had been published in relation to stress reduction for ID staff. One paper that had attempted such a review found little research to critique in the area of stress management interventions for ID staff (Innstrand, Espnes & Mykletun, 2002). A further paper had discussed stressors, a model of stress and stress management intervention principles for ID staff, but this was not a systematic review and was 17 years old (Rose, 1997). An extensive search of the literature on stress management interventions and their effectiveness for ID staff, resulted in 10 papers being included in the review in chapter one.

Empirical Paper

The decision to undertake a research study on the predictors and moderators of stress was influenced by the original literature searches. It became apparent that despite emotional responses of ID services staff being considered, little research had investigated this using a specific theory such as emotional intelligence. Emotional intelligence is a theoretical framework that attempts to account for people's emotional experiences and responses to others (Mayer & Salovey, 1997). It pertains to being able to understand your own emotional responses to stimuli but also understanding the responses of others (Zijlmans, Embregts, Gerits, Bosman & Derksen, 2011). The findings from chapter one highlighted that in order to conduct successful stress management training, organisations must be aware of the processes behind stress development and influences upon this. The literature review therefore highlighted the gaps in understanding processes involved in staff developing stress in ID services. Emotional intelligence was a variable that was beginning to be the focus of training packages as it is increasingly believed to impact positively on stress management (Gerits, Derksen & Verbruggen, 2004; Zijlmans et al., 2011).

Empirical Data Collection

Initially one organisation was identified for data collection for the empirical element of the thesis; they had sufficient staff members to provide the sample of participants required. After several months of active recruitment, however, only a handful of data sets had been collected. With participants slow to engage it became apparent that further participant pools would be required and further proactive recruitment was needed. One reason given for non-participation included being too busy with work related activities. A further three organisations were approached where residential support was provided for ID service users 24 hours a day. Ethical approval was sought for these changes. The increase in the number of organisations and visits to the premises to promote the research project enabled the data collection to increase. This investment of time was necessary to support data collection. It took a total of eight months to collect all of the data. At times during the eight months the author did feel frustrated and exhausted by the data collection process. In retrospect, it was crucial that data collection began early and promptly to enable sufficient time for analysis and write-up. The university ethical procedure process was relatively short and therefore meant that recruitment could commence as early as possible.

Measures

The study built on previous research by Howard, Rose and Levenson (2009) which recommended further research into the moderators of stress. The Difficult Behaviour Self-Efficacy Scale (Hastings & Brown, 2002), the Violence Scale (Howard et al., 2009) and the Maslach Burnout Inventory (MBI; Maslach & Jackson, 1993) were replicated from this study (Howard et al., 2007). The MBI has been one of the most widely used scales for measuring burnout (Skirrow & Hatton, 2007) and an abbreviated version featured in Lancet publications (McManus, Winder & Gordon, 2002) was used in this study. Past experience of working on a large RCT has demonstrated that when substantial sample sizes are required, large questionnaire packs can hinder recruitment of required participant numbers. Therefore asking busy participants to fill in extensive questionnaires would, no doubt, have meant they were less inclined to take part. In view of this, it seemed more conducive to use the shorter versions of the stress and emotional intelligence questionnaires. The Trait Emotional Intelligence Questionnaire – Short Form was selected for the emotional intelligence measure as it was a well validated self-report survey (TEIQue-SF,

Petrides & Furnham, 2006). Comments and reflections from participants about the process echoed the concerns the author had about extensive questionnaires, specifically in relation to the number of items on a scale. Comments included *'How long will this take?'* and '*There are loads of questions'*. In hindsight it seemed the right decision to be mindful about the overall length of the surveys distributed due to the requirement to extend recruitment.

The measures used stimulated interesting queries and questions from the participants involved in the research. The language used in some of the measures prompted frequent questions from participants regarding the meaning of a word or phrase. In particular, the depersonalisation (DP) scale within the Abbreviated Maslach Burnout Inventory regularly prompted such queries (aMBI). The scale consists of the following three items; *"I see clients as impersonal", "I feel callous toward people"* and *"I do not care what happens to clients".* Several participants enquired about the meaning of *impersonal* and *callous.* It also seemed apparent that they were surprised by the definitions of these words and they felt that it was not appropriate to feel that way towards their clients. This may well have led to under-reporting which could account for why this data was not normally distributed but instead positively skewed to the lower responses on the scale. Also on reflection matching the language featured on measures to the vocabulary of the respondents is crucial in research projects. The queries made by participants highlights the assumptions made about the accessibility of surveys for their intended audience.

The analysis of the DP variable found that it had the lowest range of scores and produced the lowest scores when compared to the emotional exhaustion and personal accomplishment scales from the aMBI. This corresponds with normative data from a systemic review of the MBI conducted by Skirrow and Hatton (2007). They found that depersonalisation produced the lowest mean score across the three domains of the MBI in 14 papers reviewed. It may be possible this survey produced a socially desirable response bias rather than capturing true beliefs and attitudes, which is a disadvantage of self-report measures (Robson, 2002).

Clinical and Theoretical Implications

The journal selected for publication of this thesis was the Journal of Applied Research in Intellectual Disabilities (JARID). The topics covered in this journal which were pertinent to this thesis included staff stress, staff training, quality of life and challenging behaviour therefore this felt an appropriate selection. The author guidelines for this journal can be found in Appendix 1.

This thesis hoped to achieve further understanding into the process of stress and burnout development in ID staff. The literature review aimed to summarise theories and concepts of stress and burnout and, furthermore, review stress management techniques which had been evaluated with ID service staff. The empirical paper aimed to explore variables that may predict and moderate the stressful impact of working in ID services for staff members. The empirical findings found that low self-efficacy and exposure to violence does predict stress. Furthermore self-efficacy can moderate the effect of violence on stress. The results also suggested that emotional intelligence can predict personal accomplishment in one's job which can protect against stress. The implications of these findings suggest that emotionally intelligent and self-efficacious staff will experience less stress and therefore provide more effective care to their clients. The research has also sought to acknowledge that working with clients that challenge can have a significant impact on staff well-being as well as affect the subsequent care and support that service users receive. Our skills as psychologists enable us to reduce distress, guide mental well-being and formulate emotional processes and dynamics that occur during interactions with our clients. Therefore it may be a role of psychology to consult and deliver training that can help staff manage their emotions and stress whilst simultaneously supporting clients in challenging environments.

Personal Reflexivity

Effects on Researcher

The task of narrowing down a literature review topic became quite overwhelming and this did take a substantial amount of time to complete. I had not previously undertaken a systematic approach to a literature review for academic studies. Therefore, it was the novelty of the situation that also seemed daunting. I was also surprised by the volume of papers dedicated to the area of staff stress in ID services.

Once I had found my intervention focus and the final papers were selected I began the write-up. I was keen to obtain feedback on my first draft to see which areas of chapter one needed improvement.

The slow recruitment and experience of participants not wanting to engage in the research was disheartening. It was hard not to take it personally as it felt like people might resent me as the researcher for making extra demands on their time. At times, therefore, I had negative feelings towards the research project. These negative emotions may have also reflected the negative emotions I experienced from potential participants towards me. The feelings, though, were channelled into motivating me to obtain my required sample size. At points during data collection I experienced feeling powerless and not in control of my participant recruitment, therefore I had to tolerate this distress. I have a tendency to need to be in control of things and I found being proactive and recruiting other organisations helped alleviate some of this distress.

Ethical Issues

As an NHS trainee clinical psychologist entering other organisational premises, individuals were often inquisitive in relation to one's knowledge, skills and advice. On occasion people requested careers advice about the psychology profession. Therefore it was a balance between offering information but also remaining focused on the research task. During my visits I came into contact with service users and I felt the contention between oneself as a clinician and oneself as a researcher and where there are limits to one's role. Service users were interested in why I was present and during these interactions I was mindful that my role was in a research capacity rather than a therapeutic role as a trainee clinical psychologist. Therefore I could not spend the time and engage with service users in ways I might otherwise if I had been attending the unit as a clinician.

Empirical Methodology

My approach to the empirical elements of this thesis was quantitative which was influenced by my epistemological position of positivism. Positivist approaches assume facts are obtained through scientific enquiry (Robson, 2002). I was most experienced in using quantitative methods of research therefore it felt appropriate to

use methodology that I was skilled in. I had undertaken dissertations at both Bachelor and Masters utilising quantitative approaches and felt practised in this type of analysis. My statistical knowledge influenced my preference of design and research methods. Statistical analysis followed a procedure with data collection and analysis as distinct processes and on reflection I like to do things in a logical progression. Positivist approaches are critiqued for their assumptions that human behaviour can be researched objectively (Robson, 2002). Consequently, qualitative interview approaches to staff members' personal experience of stressors could provide deeper understanding into the individual experiences of employees to help future stress management programmes.

Conclusion

Overall this thesis represents a personal as well as an academic journey. The process and completion of this project has bestowed me with further research competence. The requirement of psychologists to build research into their clinical roles is pertinent and I feel confident to be able to work towards further publications in my career. I hope I can further contribute to the evidence base in the future services I work within.

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Appendices

Appendix 1 Author Guidelines for Journal

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1. GENERAL The *Journal of Applied Research in Intellectual Disabilities* is an international, peer-reviewed journal which draws together findings derived from original applied research in intellectual disabilities. The journal is an important forum for the dissemination of ideas to promote valued lifestyles for people with intellectual disabilities. It reports on research from the UK and overseas by authors from all relevant professional disciplines. It is aimed at an international, multi-disciplinary readership. The topics it covers include community living, quality of life, challenging behaviour, communication, sexuality, medication, ageing, supported employment, family issues, mental health, physical health, autism, economic issues, social networks, staff stress, staff training, epidemiology and service provision. Theoretical papers are also considered provided the implications for therapeutic action or enhancing quality of life are clear. Both quantitative and qualitative methodologies are welcomed. All original and review articles continue to undergo a rigorous, peer-refereeing process. Please read the instructions below carefully for details on submission of manuscripts, the journal's requirements and standards as well as information concerning the procedure after a manuscript has been accepted for publication. Authors are encouraged to visit http://authorservices.wiley.com/bauthor/ for further information on the preparation and submission of articles. **Crosscheck** The journal to which you are submitting your manuscript employs a plagiarism detection system. By submitting your manuscript to this journal you accept that your manuscript may be screened for plagiarism against previously published works.

2. ETHICAL GUIDELINES Acceptance of papers is based on the understanding that authors have treated research participants with respect and dignity throughout. Please see Section 2.2 below.

2.1 Authorship and Acknowledgements

Authorship: Authors submitting a paper do so on the understanding that the manuscript has been read and approved by all authors and that all authors agree to the submission of the manuscript to the journal. ALL named authors must have made an active contribution to the conception and design and/or analysis and interpretation of the data and/or the drafting of the paper and ALL authors must have critically reviewed its content and have approved the final version submitted for publication. Participation solely in the acquisition of funding or the collection of data does not justify authorship. It is a requirement that all authors have been accredited as appropriate under submission of the manuscript. Contributors who do not qualify as authors should be mentioned under Acknowledgements.

Acknowledgements: Under Acknowledgements please specify contributors to the article other than the authors accredited. Please also include specifications of the source of funding for the study and any potential conflict of interest if appropriate. Suppliers of materials should be named and their location (town, state/county, country) included.

2.2 Ethical Approvals

Research involving human participants will only be pubished if such research has been conducted in full accordance with ethical principles, including the World Medical Association Declaration of Helsinki (version, 2002 www.wma.net) and the additional requirements, if any, of the country where the research has been carried out. Manuscripts must be accompanied by a statement that the research was undertaken with the understanding and written consent of each participant (or the participant's representative, if they lack capacity), and according to the above mentioned principles. A statement regarding the fact that the study has been independently reviewed and approved by an ethical board should also be included. All studies using human participants should include an explicit statement in the Material and Methods section identifying the review and ethics committee approval for each study, if applicable. Editors reserve the right to reject papers if there is doubt as to whether appropriate procedures have been used. Ethics of investigation: Papers not in agreement with the guidelines of the Helsinki Declaration as revised in 1975 will not be accepted for publication.

2.3 Clinical Trials

Clinical trials should be reported using the CONSORT guidelines available at www.consort-statement.org. A CONSORT checklist should also be included in the submission material (www.consort-statement.org). The *Journal of Applied Research in Intellectual Disabilities* encourages authors submitting manuscripts reporting from a clinical trial to register the trials in any of the following free, public trials registries: www.clinicaltrials.org, www.isrctn.org. The clinical trial registration number and name of the trial register will then be published with the paper.

2.4 Conflict of Interest and Source of Funding

Conflict of Interest: Authors are required to disclose any possible conflict of interest. These include financial (for example patent ownership, stock ownership, consultancies, speaker's fee). Author's conflict of interest (or information specifying the absence of conflict of interest) will be published under a separate heading. The *Journal of Applied Research in Intellectual Disabilities* requires that sources of institutional, private and corporate financial support for the work within the manuscript must be fully acknowledged, and any potential conflict of interest noted. As of 1st March 2007, this information is a requirement for all manuscripts submitted to the journal and will be published in a highlighted box on the title page of the article. Please include this information under the separate headings of 'Source of Funding' and 'Conflict of Interest' at the end of the manuscript. If the author does not include a conflict of interest statement in the manuscript, then the following statement will be included by default: 'No conflict of interest has been declared'.

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4.1 Manuscript Files Accepted Manuscripts should be uploaded as Word (.doc) or Rich Text Format (.rft) files (not write-protected) plus separate figure files. GIF, JPEG, PICT or Bitmap files are acceptable for submission, but only high-resolution TIF or EPS files are suitable for printing. To allow double-blinded review, please upload your manuscript and title page as **separate** files.

Please upload:
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4.2 Blinded Review All articles submitted to the journal are assessed by at least two anonymous reviewers with expertise in that field. The Editors reserve the right to edit any contribution to ensure that it conforms with the requirements of the journal.

5. MANUSCRIPT TYPES ACCEPTED *Original Articles, Review Articles, Brief Reports, Book Reviews* and *Letters to the Editor* are accepted. *Theoretical Papers* are also considered provided the implications for therapeutic action or enhancing quality of life are clear. Both quantitative and qualitative methodologies are welcomed. Articles are accepted for publication only at the discretion of the Editor. Articles should not exceed 7000 words. Brief Reports should not normally exceed 2000 words. Submissions for the Letters to the Editor section should be no more than 750 words in length.

6. MANUSCRIPT FORMAT AND STRUCTURE

6.1 Format

Language: The language of publication is English. Authors for whom English is a second language must have their manuscript professionally edited by an English speaking person before submission to make sure the English is of high quality. It is preferred that manuscripts are professionally edited. A list of independent suppliers of editing services can be found at http://authorservices.wiley.com/bauthor/english_language.asp. All services are paid for and arranged by the author, and use of one of these services does not guarantee acceptance or preference for publication.

6.2 Structure All manuscripts submitted to the *Journal of Applied Research in Intellectual Disabilities* should include:

Cover Page: A cover page should contain only the title, thereby facilitating anonymous reviewing. The authors' details should be supplied on a separate page and the author for correspondence should be identified clearly, along with full contact details, including e-mail address.
Running Title: A short title of not more than fifty characters, including spaces, should be provided.
Keywords: Up to six key words to aid indexing should also be provided.
Main Text: All papers should be divided into a structured abstract (150 words) and the main text with appropriate sub headings. A structured abstract should be given at

the beginning of each article, incorporating the following headings: Background, Materials and Methods, Results, Conclusions. These should outline the questions investigated, the design, essential findings and main conclusions of the study. The text should then proceed through sections of Introduction, Materials and Methods, Results and Discussion, and finally Tables. Figures should be submitted as a separate file.

Style: Manuscripts should be formatted with a wide margin and double spaced. Include all parts of the text of the paper in a single file, but do not embed figures. Please note the following points which will help us to process your manuscript successfully:

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-If you use a table editor function, ensure that each data point is contained within a unique cell, i.e. do not use carriage returns within cells.

Spelling should conform to *The Concise Oxford Dictionary of Current English* and units of measurements, symbols and abbreviations with those in *Units, Symbols and Abbreviations* (1977) published and supplied by the Royal Society of Medicine, 1 Wimpole Street, London W1M 8AE. This specifies the use of S.I. units.

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-Emerson E. (1995) *Challenging Behaviour: Analysis and Intervention in People with Learning Disabilities.* Cambridge University Press, Cambridge.
-McGill P. & Toogood A. (1993) Organising community placements. In: *Severe Learning Disabilities and Challenging Behaviours: Designing High Quality Services* (Eds E. Emerson, P. McGill & J. Mansell), pp. 232-259. Chapman and Hall, London.
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6.4 Tables, Figures and Figure Legends Tables should include only essential data. Each table must be typewritten on a separate sheet and should be numbered consecutively with Arabic numerals, e.g. Table 1, and given a short caption. Figures

should be referred to in the text as Figures using Arabic numbers, e.g. Fig.1, Fig.2 etc, in order of appearance. Figures should be clearly labelled with the name of the first author, and the appropriate number. Each figure should have a separate legend; these should be grouped on a separate page at the end of the manuscript. All symbols and abbreviations should be clearly explained. In the full-text online edition of the journal, figure legends may be truncated in abbreviated links to the full screen version. Therefore, the first 100 characters of any legend should inform the reader of key aspects of the figure.

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