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

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

## **Abstract**

*Objectives* Understanding predictors of burnout could potentially aid interventions for staff working in services for people with intellectual disabilities (ID). This study sought to understand predictors of burnout for staff specifically focusing on the moderating effect of emotional intelligence (EI) and self-efficacy.

*Methods* 86 staff members working in services for people with ID 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 services for people with ID. Further research is needed into the utility of the construct of EI and exploring the role of staff emotional intelligence in the context of services for people with ID.

*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). People with ID have cognitive and adaptive functioning impairments and often require support services (World Health Organisation, 2014). It is increasingly recognised that staff in services for people with ID 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, effect outcomes for clients in their care (Bailey et al., 2006; Dilworth et al., 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 services for people with ID.

Challenging behaviour (CB) and violence are common-place in services for people with ID (Strand et al., 2004). CB is when a client's actions may place them or others in physical danger (Emerson, 2001). Jenkins et al. (1997) found that more frequent CB was associated with poorer psychological wellbeing in staff members. [Rose and Rose \(2005\) The investigated the](#) interaction between stress and staff attributions of behaviour and the impact of this interaction on staff reactions to CB [have been investigated \(Rose and Rose, 2005\)](#). [They-It was](#) 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 et al. (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 services for people with ID 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 et al. (2012) were interested in the attributions and emotional reactions to CB and interpersonal styles of staff members in services for people with ID. 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. 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 et al., 2009). Lundstrom et al. (2007) found the most common emotional reactions to violence were powerlessness, feeling insufficient, anger, unhappiness, and feeling violated.

~~Zijlmans et al. (2012)~~ It has been suggested that ~~urged~~ further research ~~should~~ consider a dynamic viewpoint of client-staff interactions, taking into account the interaction between client behaviour and staff emotions (Zijlmans et al., 2012).

Zijlmans et al. (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 et al. (2009) explored the impact of violence on burnout in staff working with people with ID displaying 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). DP relates to feeling and acting impersonally towards clients and PA relates to the extent that work is fulfilling one's aspirations. Burnout is typically measured by the Maslach Burnout Inventory (MBI; Maslach & Jackson, 1993), which is a well-validated and frequently used burnout measure. [A large scale study also found that EE and DP as measured by the MBI were both significantly positively correlated with exposure to aggression in staff supporting adults with ID \(Hensel et al., 2012\). They concluded that aggression does impact on staff well-](#)

[being yet judging by the high scores of PA other variables must also affect well-being and burnout.](#)

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~~ relates to staff members' perception of how confident they are in managing the [client's](#) 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.

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 in services for people with ID (McGill et al., 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.

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) used Emotional Intelligence (EI) training to help improve emotional and behavioural responses of staff to CB. 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)*

Zijlmans et al. (2011) is one of the few studies that explores training EI skills to staff working with people with ID. 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 EI 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 services for people with ID. 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 people with ID. Increasing stress management and adaptation skills through EI training might, therefore, 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 people with ID receive.

Van Dusseldorp et al. (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 et al., 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 et al. (2004) found higher levels of EI to be associated with lower levels of burnout in staff working in services for people with ID. Thus EI might mitigate the development of stress. This current paper explores further the effect that EI has on experiences of stress for staff working in services for people with ID.

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 build on previous research (e.g. Hensel et al., 2012), and replicate the research undertaken by Howard et al. (2009) and extend this work by measuring 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 ~~paperarticle~~ hopes to contribute to the scarce research literature as accentuated by Zijlmans et al. (2011) surrounding the implications of staff emotional intelligence in services for people with ID. 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 multipleall professionals working in services for people with ID.

### ObjectivesAims

The objectives aim of this research are 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 working in services for people with ID.

### **Hypotheses**

1. Higher exposure to violence, lower emotional intelligence, and lower self-efficacy predict higher staff burnout.
2. Emotional intelligence moderates the relationship between exposure to violence and staff burnout. Therefore higher emotional intelligence will reduce the impact that violence has on staff burnout thus burnout will be lower.

3. Self-efficacy moderates the relationship between exposure to violence and staff burnout. Therefore higher self-efficacy will reduce the impact that violence has on staff burnout thus burnout will be lower.

## **Methods**

### *Design*

This study used a cross-sectional design. Several self-report questionnaires were completed by staff working in residential settings for people with ID 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 packs which included an information sheet, consent form and questionnaires. The questionnaires took an average of 20 minutes to complete. Those that participated signed the consent form, completed the survey and returned them to their manager.

### *Participants*

Those approached worked in a direct supportive and therapeutic role with adults with ID. A total number of 200 questionnaires were distributed and 86 were returned (43% response rate). Participants included 55 women (63.95%) and 31 men

(36.05%) and the age range was 21 – 63 years (Mean = 39.7, SD = 13.7). Participant job titles included support workers ( $n = 53$ , 61.63%), senior support workers ( $n = 13$ , 15.12%), managers ( $n = 8$ , 9.30%), psychologists ( $n = 3$ , 3.49%), occupational therapists ( $n = 3$ , 3.49%), psychiatrists ( $n = 2$ , 2.33%), speech and language therapist ( $n = 1$ , 1.16%), teacher ( $n = 1$ , 1.16%), nurse ( $n = 1$ , 1.16%), and social worker ( $n = 1$ , 1.16%). The mean time in professional role in months was 69.0 (SD = 73.7, Range = 1 – 384). The mean time at the organisation in months was 54.8 (SD = 64.5, Range = 1 – 385) and the mean time spent working with clients with ID clients in months was 76.4 (SD = 71.7, Range = 1 – 385).

### *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 people with ID 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), depersonalisation (DP) and personal accomplishment (PA). 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 et al., 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 the University's Faculty of Health Sciences Ethics Panel. 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.

### *Analysis*

Data were analysed using SPSS Statistics 21 software (IBM Corp, 2012). Power calculations using Gpower (GPower; Faul et al., 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 multiple regression. This is a comparable sample size to similar research studies (Devereux et al., 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).

The statistical assumptions required for a regression analysis were checked. The only variable to significantly violate any of the assumptions was the variable of depersonalisation, which was positively skewed and violated normality. Due to this, bootstrapping was employed, which estimates confidence intervals for indirect effects providing a sampling distribution when normal distribution is significantly violated (MacKinnon et al., 2004). Bootstrapping is reported alongside the regression models where predictors of DP were being explored.

## Results

In relation to the burnout variables, medium levels of EE were experienced (Mean = 7.44, SD = 4.37, Range = 0 – 18). Low levels of depersonalisation were reported (Mean = 1.09, SD = 1.97, Range = 0 – 11) and high levels of personal accomplishment (Mean = 13.47, SD = 3.69, Range = 0 – 18). The mean score on the EI measure was high (Mean = 158.08, SD = 21.55, Range = 77 – 191). The mean for self-efficacy scores was relatively high (Mean = 27.08, SD = 4.54, Range = 15 – 35). Reported exposure to violence scores were moderate (Mean = 7.13, SD = 3.99, Range = 3 – 15).

### *Correlations*

Pearson's product-moment correlations coefficients show that emotional exhaustion was moderately positively correlated with depersonalisation ( $r = 0.472, p < 0.001$ ), 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 ( $r = 0.312, p < 0.01$ ) 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 ( $r = 0.380, p < 0.001$ ). This meant



that those reporting higher levels of PA also reported higher levels of EI. There were no other statistically significant correlations between variables.

#### *Multiple Regression Analyses: Predictors of Burnout*

Standard multiple regression analyses were conducted for EE, DP and PA (dependent variable) to identify predictors of burnout. The predictor variables loaded into the regression model were self-efficacy, EI and exposure to violence. Regression coefficients for each of the three dependent variables: EE, DP and PA, and the predictor variables, are reported in tables 1, 2 and 3.

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 (Table 1). 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 1* 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

	<i>B</i>	<i>SE B</i>	$\beta$	<i>Sig.</i>
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<sup>2</sup> = .162, Adjusted R<sup>2</sup> = .132.

Significant predictors of DP were exposure to violence and self-efficacy. This model accounted for 21.4% (R<sup>2</sup>) of the variance in DP, 18.6% (R<sup>2</sup> 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 2). Therefore greater exposure to violence and lower self-efficacy predicted greater DP.

*Table 2* 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	$\beta$	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<sup>2</sup> = .214, Adjusted R<sup>2</sup> = .186. CIs: Confidence Intervals.

Bootstrap results are based on 1000 bootstrap samples.

The sole significant predictor of PA was emotional intelligence (Table 3). 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.

*Table 3* 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

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	<i>B</i>	<i>SE B</i>	$\beta$	<i>Sig.</i>
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

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\*\*\*  $p < 0.001$

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

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.

Self-efficacy was found to moderate the relationship between EE and exposure to violence  $F(1,82) = 4.4, p = 0.038$  (Table 4). The proportion of variance explained by the moderator or interaction was 4.5% (R<sup>2</sup> Change). The findings show that exposure to violence is a stronger predictor of EE when self-efficacy is low. Fig. 1 displays the moderator interaction model between the three variables.

*Table 4* 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	<i>B</i>	<i>SE B</i>	$\beta$	<i>Sig.</i>
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	0.014*
Self-Efficacy	-0.251	0.101	0.015*
Interaction	-0.209	0.099	0.038*

\* p < 0.05

Note: Model 1 R<sup>2</sup> = 0.121, Model 2 Adjusted R<sup>2</sup> = 0.136.

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

Self-efficacy was also found to moderate the relationship between DP and exposure to violence  $F(1,82) = 18.85, p < 0.001$  (Table 5). The proportion of variance explained by the moderator or interaction was 14.7% (R<sup>2</sup> Change) (Fig. 2). Bootstrapping was also performed for DP and is detailed in Table 5 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 5 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	$\beta$	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  $R^2 = 0.214$ , Model 2 Adjusted  $R^2 = 0.337$ . CIs: Confidence Intervals.

Bootstrap results are based on 1000 bootstrap samples.

*Figure 2* Diagram to show the moderator relationship for self-efficacy and exposure to violence and DP

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 potentially moderating role of emotional intelligence and self-efficacy on the relationship between exposure to violence and burnout in staff working in services for people with ID. In summary, the results provided evidence that low emotional intelligence, exposure to violence and low self-efficacy may predict EE; and exposure to violence and low self-efficacy may predict DP in staff. 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 aspects of burnout-variables (Mills & Rose, 2011). ~~When considering the variance explained by the regression model,~~ E emotional intelligence, self-efficacy and violence contributed significantly to the regression with explained 13.2% of EE and self-efficacy and violence contributed to 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 ~~but yet this does not receive PA therefore~~ result in greater fulfilment from their work (PA). The ~~absence~~ lack of a relationship suggests that ~~other~~ variables other than self-efficacy contribute to personal accomplishment in one's employment.

In addition to lower ratings of EI being related to greater 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. Overall the results suggest that there are variables unaccounted for that might help to explain the relationships between these variables or that the measures that were used in this research may not have been able to measure these concepts adequately. Other possible protective factors against burnout include support and rewards outweighing stressors (Pines & Aronson, 1988), as a result these may be possible confounding variables. 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.

The research suggests increasing self-efficacy in dealing with violence and CB can moderate negative effects such as burnout, which supports similar research findings (McGill et al., 2007). Lundstrom et al. (2007) found that staff commonly reported having insufficient knowledge to deal with CB in services for people with ID. 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 clients receive.



It was predicted that the outcomes of this study may have provided support for the notion of emotional intelligence training for staff working in services for people with ID. 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 may prevent EE and promote personal accomplishment which may 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). 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.

### *Limitations*

Methodologically this study was a cross-sectional study considering correlations between variables therefore causality can not be attributed within the relationships of the variables studied. In addition to this the small sample size is a limitation in being able to make generalised conclusions from this research study.

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.

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.

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. 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 research concerning its impact on staff and clients.

The range of professionals involved in this research, by nature, meant that some participants spent a larger amount of time with clients 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. In addition, different job roles and levels of responsibility may have impacted on burnout levels and therefore been a confounding variable. In this sample, 76% of the participants were support staff; therefore, heterogeneity may have been present which limits the findings as robust comparisons between professions were not possible. 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 possible 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 this developing into burnout.

Furthermore 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 people with ID. 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.

### *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.

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