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Construct Validity of the Maslach Burnout Inventory in Mental Health Workers: Differentiation from Traumatic Stress Disorders

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Abstract

The construct of psychological burnout has been in the literature for decades, and has been largely assessed through C. Maslach's Maslach Burnout Inventory (MBI). Much of the research on the MBI has been on human service and education workers and has stressed the differentiation of groups. Here we summarize the results of two studies with groups of therapists and explore the relative ability of burnout as assessed by the MBI to differentiate stress disorders that are likely to arise in therapists who deal with clients who have been exposed to severe forms of psychological or physical trauma, namely posttraumatic stress disorder and compassion fatigue or secondary traumatic stress disorder (STSD). Study 1 compared 21 workers from sexual assault centres, 47 from women's refuges, and 21 other counselors and found higher levels of burnout and posttraumatic stress disorder in the sexual assault workers. Study 2 differentiated 19 therapists with posttraumatic stress disorder from secondary traumatic stress disorder in a second group of 51 therapists exposed to many clients with traumatic experiences, and contrasted them with a group of 55 generic mental health workers. Results showed that the groups did not differ in burnout, but the measure of secondary stress disorder did differentiate the two groups with traumatic stress disorders from the generic mental health workers. While the MBI showed some ability to distinguish therapists with symptoms of PTSD from other practitioners, it was less able to discriminate cases of STSD.

Key words: burnout, posttrauamatic stress disorder, secondary stress disorder, Maslach Burnout Inventory

The psychological construct of burnout was first explored in the 1970s in association with studies of coping strategies of workers in human services and their anxieties and frustrations (Kirkhart, 1996; Maslach, et al., 2001). The development of burnout is associated with levels of over commitment and a realization that an individual's goals and ideals are unachievable, leading to the development of disappointment in one's work performance (Kirkhart, 1996). Burnout is a progressive response over time and can be a direct result of helping clients in unsupportive work settings (Arthur, 1990; Maslach, 1982). A common definition of burnout is by Maslach et al. (2001) who define burnout as follows:

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… An overwhelming exhaustion, feelings of cynicism and detachment from the job, and a sense of ineffectiveness and lack of accomplishment. The exhaustion component represents the basic individual stress dimension of burnout. It refers to feelings of being overextended and depleted of one's emotional and physical resources. The cynicism (or depersonalization) component represents the interpersonal context dimension of burnout. It refers to a negative, callous, or excessively detached response to various aspects of the job. The component of reduced efficacy or accomplishment represents the self-evaluation dimension of burnout. It refers to feelings of incompetence and a lack of achievement and productivity at work. (p. 399).

Burnout is associated with long term involvement with daily stressors and hassles in workplaces that have cumulative effects on the workers' emotional state (Capner & Caltabiano, 1993; Figley, 1995; Linton, 2000; Maslach, 1982; Oliver & Kuipers, 1996; Schwan, 1998). Throughout the literature, emotional exhaustion is reported as the key factor in burnout (Figley, 1995; Leiter & Harvie, 1996; Maslach, 1982; O'Halloran & Linton, 2000), but one that while necessary, is not itself sufficient for the development of burnout, which requires the addition of depersonalization and loss of job satisfaction. The most widely used measure of burnout has been the Maslach Burnout Inventory (MBI), the manual for which is now in its third edition (Maslach, Jackson, & Leiter, 1996). The MBI provides separate forms for use in human services (MBI-HSS), in teachers (MBI-ES), and for general use (MBI-GS).

A series of studies has been undertaken using factor analysis that supported the validity of the three factor structure of burnout (see Walkey & Green, 1992; Yadama & Drake, 1995). Maslach and Jackson (1981) reported on validity studies conducted on the MBI that examined correlations between independent behaviour ratings, dimensions of job experience and personal outcomes. Results generally supported the convergent validity of the MBI. Burnout has most consistently been associated with the construct of job satisfaction, with correlations in the range of -.4 to -.5 with measures of job satisfaction.

Other issues that relate to the construct validity of burnout as measured by the MBI involve stress disorders, which include conditions such as anxiety and panic disorder. The literature has yet to report on the ability of measures of burnout to distinguish among groups of therapists that vary in the potential for having developed traumatic stress-related disorders. Here we deal with the stress disorders related to traumatic experiences in order to evaluate the relative ability of the MBI and measures of traumatic stress disorders to differentiate such conditions.

BURNOUT AND STRESS DISORDERS

Research indicates that those practitioners with higher caseloads of clients with traumatic experiences display more trauma symptoms themselves, presumably due to this increased interaction with traumatic material (Arvay & Uhleman, 1996; Chrestman, 1999; Ortlepp & Friedman, 2002). What has also been noted is that different types of trauma may impact on people in different ways (Cunningham, 2003). For example, trauma that has been induced by human action seems to have a larger impact on individuals than trauma arising from natural disasters (Cunningham, 2003). Meldrum et al. (2002) analyzed the nature of trauma material with which therapists dealt. Their results indicated that out of nine categories of trauma used, only two types were related to the development of symptoms in the therapists. These categories included threats of death (including suicidal ideation) and threats to physical wellbeing as the client material likely to increase practitioners' susceptibility to stress related disorders. Perry (2003) also reports that children's trauma material can have an increased impact on therapists over that of materials reported by adults. When taking into account that

people find man-made disaster more difficult to deal with than natural disasters (Cunningham, 2003), then it is no surprise that man-made trauma inflicted on a child may increase the level of trauma a practitioner may experience beyond the equivalent exposure from adult clients. Those therapists who work in agencies such as sexual assault centers and women's refuges are more likely to be exposed to both adult and child clients who have experienced serious traumas and thus may be at greater risk of acquiring symptoms of traumatic stress disorders themselves, such as Post Traumatic Stress Disorder (PTSD). The MBI is one of the most widely utilized assessment measures within the area of stress research in mental health care workers (Arthur, 1990; Capner & Caltabiano, 1993; (Kalliath et al., 2000) Kalliath, O'Driscoll, Gillespie & Bluedorn, 2000; Leiter & Harvie, 1996; Maslach et al., 1996; Snibbe, et al., 1989; Stebinicki, 2000). In a review of stress studies among mental health care workers, the MBI was utilized in all, bar one (Leiter & Harvie, 1996).

At the level of test convergent and discriminant validity (Campbell & Fiske, 1959), we would expect some positive correlation between a measure of PTSD and the Emotional Exhaustion and Depersonalization scales of the MBI, with little correlation with the Personal Accomplishment scale. We also expected that the PTSD scale would more effectively discriminate groups of counselors exposed to different types and degree of traumatized clients than would the MBI scales. Thus, we predicted higher levels of symptoms of both PTSD and burnout in sexual assault center workers than in refuge workers, both of whom would have more symptoms than general counselors, with the exception that reports of Personal Accomplishment would be higher in counselors than in the other two groups. Similarly, we predicted that symptoms of PTSD would be better able to discriminate the groups than would symptoms of burnout.

STUDY 1

Method

Participants

A total of 89 participants were included, 47 from women's refuges, 21 from Sexual Assault and Referral Centres (SARCs) and 21 from counselling agencies. Participants for the present study were recruited from various women's refuges throughout the Perth metropolitan area (and three surrounding country areas), Sexual Assault and Referral Centers throughout the state and various counselling agencies within the metropolitan Perth area. Participation was voluntary and only counsellors stating they had few or no trauma clients were recruited. Participants were predominantly female (85), married (46), Australian (61), and with a mean age of 44 years (range 24-66). They had worked in their present place of employment for a mean of 5 years (range .5 - 26 years), in a non-supervisory position (57), and had worked in the type of employment for a mean of 9 years (range .5 – 35 years). The majority of participants had a tertiary qualification (42) and 26 held some postgraduate qualifications. Most participants worked between 0-29 hours per week (46), or 30-40 hours per week (40), with 24 working under 20 hours per week and three working over 40 hours per week.

Materials

Maslach Burnout Inventory

The Maslach Burnout Inventory – Human Services Survey (MBI-HSS; Maslach et al., 1996) was used. The MBI-HSS is a self-administered, 22-item questionnaire that was designed to assess characteristics most indicative of burnout in terms of the frequency with which the respondent agrees on three subscales. Responses to the 22 statements are measured using a seven point Likert-type scale, ranging from 0 (never experienced such a feeling) to 6 (experience such feelings every day). The three subscales measure Emotional Exhaustion (EE) (for example, "I feel like I'm at the end of my rope"); Depersonalisation (DP) (for example, "I feel I treat some

recipients as if they were impersonal objects"); and Personal Accomplishment (PA) (for example, "I feel I'm positively influencing other people's lives through my work"). According to Yadama and Drake (1995), the "constructs of emotional exhaustion and depersonalization are understood as separate but related, showing consistently moderate correlations. Accomplishment is negatively correlated with both emotional exhaustion and depersonalisation at a lower level" (p. 185). Reliability coefficients reported in the current manual (Maslach et al., 1996) estimated by Cronbach's coefficient alpha (n = 1316) to be .90 for EE, .79 for DP and .71 for PA in the samples reported.

Posttraumatic Stress Disorder Checklist

The PTSD measure used was the Posttraumatic Stress Disorder Checklist – Civilian version (PCL-C) developed by Weathers, Huska and Keane (1991). The PCL-C consists of 17 items that correspond to the DSM-IV (American Psychiatric Association, 1994) symptoms of PTSD. Respondents indicate how much they have been bothered by each symptom in the last month using a 5-point rating scale, ranging from 1 = not at all to 5 = extremely. The PCL-C yields a total score and subscale scores for intrusive (for example, "repeated, disturbing of a stressful experience from the past") and avoidant cognitions (for example, memories, thoughts or images avoiding thinking about or talking about a stressful experience from the past or avoiding having feelings related to it"), numbing (for example, "feeling distant or cut off from other people") and arousal (for example, "feeling irritable or having angry outbursts").

Internal consistency is very high for each of the three groups of items corresponding to the DSM-IV clusters as well as for the full scale (Weathers, Litz, Herman, Huska & Keane, 1993). According to Wilson and Keane (1997), the PCL-C has good sensitivity (.82) and specificity (.83) and is positively correlated with standard measures of PTSD such as the Mississippi Scale, r = .93 (Keane, Caddell & Taylor, 1988), the PK scale of the MMPI-2, r = .77 (Keane, Malloy & Fairbank, 1984), and the Impact of Events scale, r = .90 (Horowitz et al., 1979; Weathers et al., 1993).

Procedure

The project was approved by the Edith Cowan University Human Research Ethics Committee. The researcher attended a monthly meeting of the Women's Refuge Group, which deals with issues related to domestic violence issues within Western Australia, explained the research project, and asked for volunteers. The refuges not represented then were informed about the research project through an article distributed with the minutes. Refuges not responding by the date requested were contacted by telephone. The researcher distributed and collected the questionnaires personally by attending staff meetings. Where too great a distance was involved the questionnaires and a detailed set of written instructions about how to complete them were sent by mail. A stamped self-addressed envelope was also enclosed for the return of completed questionnaires.

The SARC agencies throughout the state were contacted by telephone. In Perth, the questionnaires and the set of instructions were distributed personally by the researcher to a contact person within the agency. Completed surveys were then collected by the researcher or mailed to a central SARC office. Finally, various counselling agencies, those not specializing in trauma work within the metropolitan Perth area were contacted by telephone. Only counsellors with little or no trauma clientele were recruited for the study. The questionnaires were distributed and collected in the same way as for the other groups.

Each participant was asked to complete both measures, a demographic data sheet and a consent form, however, the order of presentation of the different measures was counterbalanced. The covering letter gave instructions for the completion and return of the instruments, information on access to the data, and instructions on contact for follow up.

In addition to standard descriptive statistics and analysis of variance for group differences, a discriminant function analysis was performed to assess the prediction of membership in three groups from scores on the four scales of the MBI and PCL-C.

RESULTS

Descriptive statistics are provided for the three groups, refuge workers, sexual assault workers, and counsellors in Table 1.

Eight cases were identified as multivariate outliers by extreme scores. Three cases were in Group 1 on the Depersonalisation and PCL-C scales. One case was in Group 2 on Depersonalisation and four cases were in Group 3 across all four predictor variables. In accordance with recommendations by Tabachnick and Fidell (1989), extreme scores were changed to one unit larger (or smaller) than the next most extreme score in the relevant distribution. After these adjustments, evaluation of the assumptions of linearity, normality, multicollinearity and homogeneity of the variance-covariance matrix revealed no threat to the multivariate analysis. Although there were unequal sample sizes, there were few predictors and the smallest groups consisted of more than twenty cases, so robustness was expected as consistent with Tabachnick and Fidell's (1989) recommendations.

Table 1: Group descriptive statistics

Group	EE		DP		PA		PSC	
	M	SD	M	SD	M	SD	M	SD
Women's Refuge (n = 47)	12.7	8.39	3.0	2.53	37.1	7.15	27.4	8.01
SARC (n = 21)	18.3	9.79	3.6	2.98	38.9	5.38	31.6*	10.11
Counsellors (n = 21)	15.0	7.88	1.8	1.69	42.8*	3.80	23.6	4.46

Note: * $p < .01$; MBI - Maslach Burnout Inventory, DP – Depersonalisation, EE - Emotional Exhaustion, PA - Personal Accomplishment, PSC - Posttraumatic Stress Checklist

Correlations among the MBI scales and the PCL-C score did not conform to expectations. Instead of no association of the measure of PTSD with Personal Accomplishment, that correlation was -.33 ($p < .01$). The correlation with Depersonalization was not significant ($r = .19$, ns), also not as was predicted, while the correlation with Emotional Exhaustion was significantly greater than zero as predicted ($r = .31$, $p < .01$).

Two discriminant functions were calculated, with a combined $x2\ (8) = 26.42$, $p < .001$. The two discriminant functions accounted for 61% and 39%, respectively, of the between-group

variability. The first discriminant function separated counsellors from women's refuge workers, with sexual assault workers falling between these groups. The second discriminant function separated sexual assault workers from the other two groups. With all four predictors in the equation, 55.1% of the original groups were correctly classified, as opposed to the 33% expected by chance.

The standardized discriminant weights are reported in Table 2 and suggest that the best predictor for distinguishing between counsellors and the other two groups (first function) is scores on Personal Accomplishment and Emotional Exhaustion. As seen in Table 1, counsellors have a statistically significantly greater sense of personal accomplishment than refuge workers or sexual assault workers ($F(2,86) = 6.26$, $p < .01$, Tukey test). Only one predictor, the PTSD measure, has a loading in excess of .50 on the second discriminant function, which separates sexual assault workers from the other two groups. Sexual assault workers have more symptoms of posttraumatic stress than refuge workers or counselors on the Posttraumatic Stress Checklist ($F(2,86) = 5.36$, $p < .01$, Tukey test).

Table 2: Standardized discriminant function loadings

	Discriminant function loadings		Pooled within-group correlations among predictors			
Predictor Variable	1	2	Univariate F(2,86)	DP	EE	PA	PSC
Depersonal-isation	-.343	.282	2.85		.38	-.36	.19
Emotional Exhaustion	.530	.425	3.08			-.14	.31
Personal Accomplishment	.675	.468	6.26				-.33
Posttraumatic Checklist	-.349	.737	5.36				

Note:1 - Function 1, 2 - Function 2, DP – Depersonalisation, EE - Emotional Exhaustion, PA - Personal Accomplishment, PSC - Posttraumatic Stress Checklist

Table 3: Mean and Standard Deviations for measures across PTSD, Mental Health and Trauma Groups

	Mental Health (n = 55)		Trauma (n = 51)		PTSD (n = 19)	
MBI Scale	Mean	STD	Mean	STD	Mean	STD
Emotional Exhaustion	18.1	10.12	17.5	7.76	27.9	11.37
Depersonalization	3.6	3.67	3.6	2.79	7.3	8.84
Personal Accomplish-ment	39.2	6.71	39.2	6.06	33.4	11.46
Compassion Fatigue Scale						
Compassion Satisfaction	97.6	14.22	98.58	14.16	79.8	19.34
Compassion Fatigue	21.9	9.70	23.56	11.93	44.4	15.06
Compassion Burnout	25.1	8.93	24.00	9.21	34.6	14.41

Note: STD: Standard Deviation

While the pattern of correlations was not as expected, the results of the comparison of the three groups and the discriminant analysis suggest that the MBI does operate differently from the PCL-C in these samples. The PCL-C differentiated the group with higher exposure to clients with sexual assault trauma, while the MBI Personal Accomplishment score was higher in the group of counselors. While the pattern of mean scores was parallel for PCL-C and MBI Depersonalization, the discriminant analysis showed these two variables loading on different functions. This in turn suggests a degree of divergent validity for the two measures, and support for the distinction of the burnout measure from that of PTSD.

DISCUSSION

The expectation that symptoms of PTSD would be most evident in the SARC group was supported, along with the hypothesis that they together with the refuge workers would exceed the symptom level of generic counselors who would have the lowest level of symptoms of PTSD. The measures of burnout showed a different pattern, with there being no difference across the groups in levels of scores on Emotional Exhaustion or Depersonalization scales. This finding supports the distinction of PTSD from burnout and the ability of the MBI scale to discriminate two of the groups studied from the third one.

The results of Study 1 suggested that groups exposed to clients who have experienced trauma can lead to symptoms of post traumatic stress disorder. Other discussions in this broad area prefer the concept of Secondary Traumatic Stress Disorder (Figley, 1995, 1999) because of the absence of direct experience of the traumatic event. Secondary trauma is closely related to the

concept of PTSD, but is caused by the exposure to the reports of clients' traumatic experiences and not the direct experience of trauma.

While the empirical support for using the MBI as a measure of burnout is high, an issue at the level of construct validity is that aspects of emotional exhaustion, depersonalization, and a lowered sense of personal accomplishment may overlap with symptoms of secondary trauma. The question of the ability of the concept of burnout as implemented in the MBI to differentiate STS from burnout in therapists has not been addressed to date in the literature.

BURNOUT AND STSD

STSD has been distinguished conceptually from burnout and is diagnostically linked to PTSD. In contrast, STSD as a result of hearing emotionally traumatic materials from clients is more specific than burnout, which can generally develop in working with any client group (O'Halloran & Linton, 2000) as a result of long term involvement with daily stressors and workplace hassles (Capner & Caltabiano, 1993; Figley, 1995; Linton, 2000; Maslach, 1982; Oliver & Kuipers, 1996; Schwan, 1998). Throughout the literature, emotional exhaustion is reported as the key factor in burnout (Figley, 1999; Leiter & Harvie, 1996; Maslach, 1982; O'Halloran & Linton, 2000). In contrast to the slow development of burnout, STS can emerge suddenly, with little warning, and with a sense of helplessness and isolation from supporters that may resemble the emotional exhaustion of burnout.

Research has given support for burnout as independent of the direct impact of trauma, consistent with the outcome of Study 1. This support is seen in the Schauben and Frazier (1995) study, which found that those practitioners who reported experiencing trauma themselves did not necessarily report burnout symptoms. Other studies also indicate differences between the concept of burnout and conditions related to exposure to clients' trauma. Munroe (1991) compared exposure to combat related PTSD clients on therapist's symptoms. Results indicated that the effects of exposure to PTSD clients was related to the therapist's stress disorder symptoms, such as hyper-arousal and nightmares, and was different from burnout (Munroe, 1991).

Wee and Myers (2003) observed differences between STS and burnout. They reviewed compassion fatigue, compassion satisfaction and burnout in 71 therapists. Results indicated that 58% displayed psychological reactions after providing critical incident stress management services. Although a moderate number (40%) indicated the presence of STS, the majority of subjects (87%) appeared a low risk for burnout, suggesting the measurement of two different constructs and supporting burnout and STS as different concepts. Furthermore, as the majority (89%) also indicated high levels of satisfaction despite their level of STS, it was suggested that compassion satisfaction may outweigh the negative psychological impact of working with traumatized clients (Wee & Myers, 2003).

Our findings in the first study did not support the hypothesis that counsellors would have the lowest level of symptoms of burnout. They did support, however, the prediction that sexual assault workers would score higher on the burnout measure than women's refuge workers. This partially supported the hypothesis that counselors would have a higher sense of personal accomplishment than the other groups and also that stress disorders are more likely with exposure to more violently traumatized clients.

Study 2 attempts to replicate this distinction in a second sample of mental health workers and to extend the distinctions between burnout and related disorders to the condition of secondary traumatic stress disorder.

STUDY 2

Participants

Participants were drawn from mental health practitioners who were employed in the trauma field or in generic counselling fields. To limit professional bias by occupational and professional roles, the sample was restricted to those persons holding a minimum of an undergraduate degree in psychology or social work or other recognized counselling degrees, that is, those professionals eligible to register with the Australian state registration board of psychologists or the Australian Association of Social Workers. The aim was to establish subgroups consisting of qualified counselors of a similar educational background. Selection for the "Trauma" subgroup consisted of 210 practitioners within Australian police services and the Department of Veteran Affairs. Another 210 practitioners throughout Community Mental Heath, Centacare, and other practitioners listed within telephone directories were contacted to form the "Mental Health" subgroup

Out of the 125 responses, 19 cases with probable PTSD were identified, with 55 others from the Mental Health group and 51 from the Trauma group. Thirty were private practitioners, 44 were working directly for an organization dealing with trauma clients, and 32 were employed by another organization.

Out of the 125 participants that returned data sets, 68% were female and 32% were male. The age range of participants was between 18 and 61 years with the majority (20.8%) between 46-50 years. The majority of participants (55.2%) were married. The breakdown by profession showed that 79.2% of participants were psychologists, 12.8% social workers, and 8.0% other.

Length of service in the participants' profession ranged from 0 to 39 years, with a mean of 13.6 years (SD=8.72). Mental Health and Trauma practitioners reported 3 months to 42 years (M=16.1, SD=9.84) since their initial graduation. Participants reported holding from 0 to 30 jobs, with a mean of 4.0 (SD=3.47) since graduation. 9.6% reported having graduate education, whilst 90.4% reported post-graduate qualifications. Eighty three percent of participants reported postgraduate qualifications, 12% tertiary and 5% secondary education. In terms of post-secondary education, 40.8% of subjects reported having a Masters degree, 29.6% Bachelor, 12% Ph.D., 12.8% had Diplomas, and 4.8% did not specify. Length of service in their current employment ranged from 0 to 25 years with a mean of 6.2 (SD=5.39) years. The group reported 0 to 37 years (M = 10.2, SD = 7.97) exposure to trauma material. They reported a mean of 1.4 (SD= 1.92) sick days per year (range of 0 to 8.5). The main client base described across Mental Health and Trauma groups was 46.23% General Public/Adults, 24.8% Vietnam Veterans, 20.5% Trauma, and 8.59% Children and Adolescents.

MATERIALS

Maslach Burnout Inventory

This was described in Study 1 (Maslach et al., 1996)

The Compassion Fatigue Scale

The Compassion Fatigue Scale (CFS; Figley and Stamm, 1996) has become prominent in the literature (Jenkins & Baird, 2002; Ortlepp & Friedman, 2002; Stamm, 1997; Wee & Myers, 2003) as a "self-test for psychotherapists" to assist them in differentiating between burnout and STS. Initial scoring for the measure was derived from a sample of 142 therapists attending workshops. Coefficient alpha reliability scores ranged from .94 to .86

Posttraumatic Diagnostic Scale

The PDS (Foa, 1995) is a 49 item self-report measure utilized as a brief screening and diagnostic tool to help assess the presence and symptom severity of PTSD. The PDS parallels DSM-IV criteria for a PTSD diagnosis and may be administered repeatedly over time to help monitor changes in symptoms. The PDS was normed on a group of 248 men and women between the ages of 17 and 65 who had experienced a traumatic event at least one month before they took the test (Foa, 1995). The normative base includes clients of women's shelters, PTSD treatment clinics, and Veteran's Administration hospitals, in addition to staff of fire stations and ambulance corps

Test re-test reliability over 10-22 days indicated a kappa of .74, and a percent agreement between administrations at 87.3%, indicating a high level of reliability (Foa, 1995). Pearson correlation coefficients between the two administrations' Severity Scores was .83 (Foa, 1995). A Cronbach's alpha of .92 was calculated across the 17 items upon which the Severity Score is based (Foa, 1995). The PDS shows high internal consistency and test-retest reliability, and has been reported to have high diagnostic agreement with the Structured Clinical Interview for DSM-III-R (Williams, et al., 1992). Having been designed to assess PTSD symptomatology, the measure has been widely utilized within PTSD and STSD research (Foa, 1995). Within this study, the PDS scale was utilized to screen for subjects that met DSM criteria A to F for PTSD. . The standard cut off score was used to identify cases of probable PTSD.

Procedure

Ethics proposals were constructed and submitted for the appropriate bodies, including James Cook University, both State and Federal police services, and the Australian Department of Veteran Affairs. Once approval was met through the appropriate ethics committees and governing bodies, the assessment batteries were collated and mailed to potential participants of the above subgroups. For participating departments, the mail out of the survey was held in accordance with the governing bodies' regulations. Four weeks after the first mail out, a reminder card was forwarded to all participants to maximize return rates. Once all questionnaires were received, data screening was completed and data analysis commenced.

RESULTS

Survey Return Rate

Four hundred twenty survey packages (210 per subgroup) were distributed. Out of the 420 packages, 90 packages were returned by Australia Post or the addressee made contact indicating that they were not eligible to complete the study. Out of the 90 undelivered or rejected packages, 42 were from the Trauma group, and 48 were from the Mental Health group. Out of the 125 surveys that were received, 19 were determined to meet criteria for PTSD, leaving 51 from the Trauma group and 55 from the Mental Health group; the overall survey return rate for the study was 37.9%. Table 4 reports descriptive statistics for the scores of the three groups on the various measures.

Table 4: Discriminant analysis standardized loadings for measures used in Study 2

Variable	Function 1	Function 2
Maslach Burnout Inventory		
Emotional Exhaustion	.212	.073
Depersonalization	.183	.040
Depersonalization	.074	.196
Compassion Fatigue Scale		
Compassion Satisfaction	-.337	.299
Compassion Fatigue	.973	.781
Burnout	-.397	-1.165

Relationship between Compassion Fatigue (STS) and Burnout

Pearson correlations between the CFS Burnout and CFS Fatigue subscale indicate a significant positive correlation (.66, $p < .05$) between burnout and compassion fatigue. Correlations between the CFS Fatigue subscale and MBI Emotional Exhaustion and MBI Depersonalization subscales indicate a significant positive correlation between Emotional Exhaustion (.53, $p < .05$) and Depersonalization (.39, $p < .05$) and CFS compassion fatigue. As the risk for compassion fatigue increases, so does the likelihood for burnout, whilst compassion satisfaction and personal accomplishment decrease.

Table 5: Correlation between Compassion Fatigue Scale and Maslach Burnout Inventory

	CFS Satisfaction	CFS Fatigue	CFS Burnout	Emotional Exhaustion	Personal Accomp-lishment	Deperson-alization
CFS Satisfaction	1	-.25**	-.25**	-.27**	.58**	-.21*
CFS Fatigue		1	.66**	.53**	-.24**	.39**
CFS Burnout			1	.74**	-.14	.58**
Emotional Exhaustion				1	-.07	.53**
Personal Accomplishment					1	-.18*

Depersonalisation	1

The results of the discriminant analysis to separate the three groups are reported in Table 5. The functions were significant ($F (12, 226) = 6.27$, $p < .001$. The first function weighted the two CSF scales of Compassion Fatigue and Burnout, while the second function had the same variables weighting the function and did not contribute to the overall group discrimination. The Mental Health group had the highest correct classification at 69.1%, followed by the PTSD group at 52.6%. The members of the Trauma group were classified correctly in 41.2% of the cases. The overall correct classification rate was 55.2%, very close to the rate found in Study 1 for three groups there.

DISCUSSION

The mean MBI scores in the Mental Health group are similar to that reported by Rupert and Morgan (2005) in their study of psychologists and to the Counsellor group in Study 1. The values for Emotional Expression in this study are closest to the solo practitioners in the Rupert and Morgan study, while the present Depersonalization score is closest to their group of practitioners, while the current score of Personal Accomplishment is closest to their agency group. Scores for the Mental Health and Trauma groups on Depersonalization were also comparable to those of the SARC and refuge groups in Study 1.

These results in both present studies are also consistent with Wee and Myers' (2003) research, which observed burnout and STSD in therapists, reporting that the compassion satisfaction displayed by practitioners seemed to outweigh the negative impact of working with traumatized people. A relationship was also found between STSD and burnout. Results indicated that as the risk for STSD increased, so did the risk for burnout. Consequently, the higher the risk of both STSD and burnout, the lower the level of compassion satisfaction and personal accomplishment that was experienced. These results were consistent with the literature that those who were at risk of STSD were also susceptible to burnout (Figley, 1995; Maslach, 1976, 1982; Schwan, 1998). The results give further support that high levels of cumulative stressors in the lives of practitioners can negatively impact on their resilience, thus making them more susceptible to both STSD and burnout. The results also gave support for the two constructs as being independent of each other, identifying them as separate entities. Although individuals with STSD are susceptible to burnout, they appear to be separate conditions (Schauben & Frazier, 1995; Wee & Myers, 2003), indicating that individuals may be diagnosed with either STSD or burnout or both.

Different work environments place different demands on people that can lead to burnout. Rupert and Morgan (2005) reported higher personal accomplishment among independent practitioners than among agency employees, with an interaction by gender. Men in independent practice reported higher emotional exhaustion and women reported higher rates in agency employment. A later report (Rupert & Kent, 2007) only partially replicated these findings. Neither study explored the role that dealing with traumatized clients might have on burnout or the development of other disorders.

It is evident that burnout as assessed by the MBI can be distinguished from both PTSD and to a lesser extent, from STSD. Other reports show that stress arousal is also a distinct construct from burnout (Smith et al., 2006). The issue of gender differences in therapists was not addressed in this study due to the limited sample size and numbers of male therapists in both studies. However, the recent report by Toker et al. (2005) of gender differences in biomarkers of inflammation between genders and the differential associations of anxiety and depression

suggests that increased attention to the association of gender with burnout in future research is important. Consistent with that report, Wang et al. (2007) report differential responses by gender to stress in an fMRI study. Therefore, it is clear that further research is needed to replicate and extend our findings to further explicate the construct validity of burnout as measured by the MBI.

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