

## Prevalence of somatisation as a determinant of burnout amongst staff working in drug and alcohol services

**Background:** Occupational groups within the helping professions work within emotionally challenging environments. Staff wellbeing, satisfaction and turnover correlate with treatment outcome. High levels of staff stress and ill health contribute to lower quality service delivery. There is limited evidence relating to work stress and burnout and stress related somatic symptoms amongst drug and alcohol workers in the UK. **Objectives:** This study explored the prevalence of somatisation as a determinant of burnout amongst drug and alcohol staff. **Methods:** The study employed a cross-sectional design utilising a self-completion online questionnaire. Data was collected from substance misuse workers across England and Wales. 165 responses were eligible for analysis, yielding a response rate of 5%. Burnout and somatization were measured with Maslach's Burnout Inventory and the Physical Symptoms Inventory. **Results:** The prevalence of somatic symptoms was relatively low in the sample studied. The reported levels of burnout were moderate. Personal accomplishment remained high in the sample and there was a strong association between burnout and incidence of stress related somatic symptoms, with higher levels of burnout correlating with multiple symptoms. **Conclusions:** The reported levels of burnout and stress related symptomatology indicate vulnerability in this cohort, which is comparable to other human services occupational groups, but higher than within mental health settings. Thus, a direct response aimed at the prevention and management of burnout and stress related symptomatology in drug and alcohol workers is required, and should be integral to the development and maintenance of a healthy workforce.

*Keywords: burnout, somatisation, staff, well-being, substance misuse, drug and alcohol*

## Introduction

Burnout is known to occur across various occupational groups and has been found to be more prevalent amongst care service employees that work within emotionally demanding environments (Ruotsalainen, 2014). Drug and alcohol workers are potentially at high risk due to the needs of cohorts accessing substance misuse services, who often express frustration, present with ambivalence around treatment engagement and often lack intrinsic motivation to change substance related behaviour (Farmer, 1995; Elman & Dowd, 1997). There has been a substantial amount of evidence in the literature concerning burnout and subsequent adverse health outcomes in human services occupational groups. However, the research evidence relating to drug and alcohol staff is limited, with most evidence concerning drug and alcohol workforce in the United States (Knudsen et al., 2006; Lacoursiere, 2001) and Australia (Duraisingam et al., 2009).

In the United Kingdom, the rates of burnout amongst drug and alcohol staff remains largely anecdotal. A recent longitudinal study reported that London drug workers were amongst the most burdened with the highest levels of burnout compared to colleagues in other European countries (Reissner et al., 2010). Moreover, it was found that British substance misuse workers exhibited higher levels of burnout compared to other health professionals in Britain (Oyefeso, Clancy, & Farmer, 2008). There is also substantial evidence in the literature supporting the link between high levels of work related stress and subsequent adverse health outcomes, as reflected in meta-analytic studies (Van Der Doef & Mases, 1998; Nixon et al., 2011). Ford, Cerasoli, Higgins, & Decesare (2011) found that psychological health is a moderate-to-strong correlate of work performance. One study reporting a direct link between burnout and health problems found that the most common problems associated with burnout were low self-esteem, depression and anxiety, prolonged illness, and stress related symptomatology, such as headaches and insomnia (Belcastro, Gold & Grant, 1982; Garner et al., 2007). More recent studies on healthcare workers reported some evidence for a direct link between burnout and memory impairment, sleep problems, back pain and neck pain

(Peterson et al., 2008), and the mediating role of burnout between job risks and physical symptoms (Leiter, 2005). A review and meta-analysis of 485 studies examining the relationship between job satisfaction and mental and physical health outcomes revealed a total correlation across all health outcome measures (Faragher, Cass, & Cooper, 2005). Job satisfaction was significantly linked to mental health outcomes such as burnout and the correlation between job satisfaction and physical health outcomes was more modest. Additionally, the evidence indicates that burnout has vast implications for drug and alcohol practice, leading to poor quality clinical care (Oser et. al, 2013), negatively predicting client engagement in treatment (Landrum, Knight & Flynn, 2012) and subsequently increasing the likelihood of staff turnover (Duraisingam et. al, 2006; Knudsen, Ducharme & Roman, 2006; Ducharme, Knudsen & Roman, 2007). Also, it has been acknowledged in the latest *Advisory Council on the Misuse of Drugs* report that cuts in funding and reduction in resources faced by drug and alcohol services in England reduce the quality of treatment (ACMD, 2017), likely increasing pressure on staff and potentially leading to higher rates of burnout and turnover. Given the unfavourable relationship between stress, burnout and adverse health outcomes and its wider implications for clinical practice demonstrated in the literature, establishing the extent, prevalence and pattern of work stress and burnout, together with stress related symptomatology in drug and alcohol workers could bring various benefits, such as improving job satisfaction and helping employers address staff wellbeing with a view to reduce stress related physical symptoms and improve job performance and staff retention. This study aimed to investigate the relationship between burnout and physical health symptoms in drug and alcohol workers.

## **Method**

### ***Design***

Data was collated as part of an anonymous, cross-sectional national online survey of workers across England and Wales. The questionnaire covered areas such as demographic characteristics, works stressors, measurements of burnout and physical symptoms. The sampling and two standardised instruments used in the study are described below. The survey was active online for 10 weeks.

### ***Participants***

The sample consisted of staff and volunteers across 180 integrated drug and alcohol recovery services across England and Wales. The integrated services comprised multidisciplinary teams including social workers, mental health nurses, speciality doctors, psychologists, drug and alcohol recovery workers and peer mentors. A potential total sample of 3410 staff including clinical and unpaid staff yielded a response rate of 165 staff (5%). Sample characteristics showed 64.2 % were female and 35.8 % male. The mean age of respondents was 34.9 years (SD= 11.2), and the mean length of time in current position was 2.3 years (SD= 1.6). Due to a variety of job titles, occupational groups were divided into three groups: regulated professionals such as doctors, nurses, counsellors and psychologists (6.6%, n=11), unregulated professionals such as community drug and alcohol workers, prison workers, hospital liaison workers, probation officers, team managers etc. (83.6%, n=138), and unpaid staff volunteer drug and alcohol workers (9.7%, n=16). 81.2 % of respondents worked in prescribing services, and 61% managed a caseload.

### ***Materials***

#### *Maslach Burnout Inventory*

Maslach Burnout Inventory (MBI) – Human Services Survey (Maslach & Jackson, 1981) was used to assess the levels of burnout. The scale consists of 22 statements to measure emotional exhaustion, depersonalisation and personal accomplishment. The scale has been shown to have satisfactory factorial validity (Schutte, Toppinen, Kalimo, & Schaufeli, 2000).

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### *Physical Symptoms Inventory*

The Physical Symptoms Inventory was used to assess stress related symptomatology (Spector & Jex, 1998), measuring symptoms such as tiredness or fatigue, headache, upset stomach or nausea, dizziness, ringing in the ears, backache, loss of appetite, constipation, eye strain, and stomach cramps. Internal reliability and validity for this scale have been established by the authors in a small scale meta-analysis (Spector et al., 1998).

### ***Procedure***

The invitation to participate in the study was included in the organisational email newsletter, and sent to staff emails. This was followed with direct emails to individual services managers, asking to promote the survey among the staff.

### ***Ethics***

The research was approved by the Middlesex University Ethics Committee

## **Results**

### ***Descriptive Statistics***

The results revealed moderate levels of Emotional Exhaustion ( $m=18.38$ ,  $SD=5.42$ ) and Depersonalisation ( $m=7.24$ ,  $SD=4.94$ ), with high levels of Personal Accomplishment ( $m=21.31$ ,  $SD=5.87$ ) in the sample. The mean score of physical symptoms reported was low ( $m=1.92$ ,  $SD=.555$ ).

Independent samples t-tests and one-way analysis of variance found no differences in gender, age, caseload, position, tenure, or prescribing/non-prescribing service in all scale scores.

Over half the sample reported moderate levels of emotional exhaustion (52.7%), and 5.5% of participants reported high levels of emotional exhaustion. However, the majority of participants scored in the low range for depersonalisation (52.1%), suggesting that most workers feel a connection with their work and themselves. Only 17.6% reported high levels of depersonalisation. Moreover, 92.1% of participants scored in the high range for personal accomplishment, indicating high levels of satisfaction with one's performance despite elevated levels of emotional exhaustion. None of the participants reported low levels of personal accomplishment.

Analysis of burnout severity categories revealed that those with high emotional exhaustion were significantly more likely to have high depersonalisation  $X^2(4) = 41.954, p < 0.001$  and more likely to have high personal accomplishment  $X^2(2) = 11.174, p < 0.01$ . There was also a significant association between high depersonalisation and high personal accomplishment,  $X^2(2) = 54.578, p < 0.001$ . Therefore, there was no connection found between high emotional exhaustion, depersonalisation and low personal accomplishment.

### **Correlation Analysis**

#### *Inter-Relationships among Burnout Components*

Based on Cohen's (1988) effect size classification, emotional exhaustion was strongly and positively correlated with both personal accomplishment ( $r = 0.724, p < .001$ ) and depersonalisation ( $r = 0.616, p < .001$ ). Depersonalisation also strongly, positively correlated with personal accomplishment ( $r = 0.717, p < .001$ ), with high scores on one burnout component associated with high scores on other burnout components.

#### *Relationships between Burnout Components and Total Physical Symptoms*

Three burnout components were significantly positively correlated with the total physical symptom scale; emotional exhaustion ( $r = 0.595, p < 0.01$ ), depersonalisation ( $r = 0.498, p < 0.01$ ) and personal accomplishment ( $r = 0.467, p < 0.01$ ). Participants with higher burnout severity, tended to have more physical symptoms.

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Overall, these results suggest that higher burnout scores on each MBI component were significantly associated with having multiple physical symptoms. In particular, tiredness or fatigue was strongly correlated with each burnout component, emotional exhaustion ( $r = 0.763, p < 0.01$ ), depersonalisation ( $r = 0.585, p < 0.01$ ) and personal accomplishment ( $r = .632, p < .01$ ) suggesting it is a major symptom of burnout. Similarly, trouble sleeping was most strongly correlated with emotional exhaustion ( $r = 0.417, p < 0.01$ ), suggesting it is a major symptom of emotional exhaustion. Headache was also moderately correlated with depersonalisation ( $r = 0.469, p < 0.01$ ).

#### *Relationship between MBI-Emotional Exhaustion and Physical Symptoms*

Emotional exhaustion correlated significantly with 12 of 13 physical symptoms. It was very strongly correlated with tiredness or fatigue ( $r = 0.763, p < 0.01$ ), moderately correlated with trouble sleeping ( $r = 0.417, p < 0.01$ ), and weakly correlated with headache ( $r = 0.387, p < 0.01$ ), upset stomach or nausea, dizziness ( $r = 0.323, p < 0.01$ ), ringing in the ears ( $r = 0.278, p < .01$ ), backache ( $r = 0.276, p < 0.01$ ), loss of appetite ( $r = 0.267, p < 0.01$ ), constipation ( $r = 0.217, p < 0.01$ ), eye strain ( $r = 0.203, p < 0.01$ ), and stomach cramps (non-menstrual) ( $r = 0.170, p < 0.05$ ).

#### *Relationship between MBI-Depersonalisation and Physical Symptoms*

Depersonalisation correlated significantly with 10 of 13 physical symptoms. It was most strongly correlated with tiredness and fatigue ( $r = 0.585, p < 0.01$ ), followed by moderate correlation with headache ( $r = 0.469, p < 0.01$ ), and was weakly correlated with upset stomach or nausea ( $r = 0.327, p < 0.01$ ), dizziness ( $r = 0.278, p < 0.01$ ), ringing in the ears ( $r = 0.275, p < 0.01$ ), trouble sleeping ( $r = 0.273, p < 0.01$ ), eye strain ( $r = 0.216, p < 0.01$ ), backache ( $r = 0.210, p < 0.01$ ), loss of appetite ( $r = 0.201, p < 0.01$ ), and constipation ( $r = 0.177, p < 0.05$ ).

#### *Relationship between MBI-Personal accomplishment and Physical Symptoms*

Personal accomplishment correlated significantly with eight of 13 physical symptoms. It most strongly correlated with tiredness or fatigue ( $r = 0.632$ ,  $p < 0.01$ ), and moderately correlated with headache ( $r = 0.411$ ,  $p < 0.01$ ), weakly correlated with trouble sleeping ( $r = 0.336$ ,  $p < 0.01$ ), dizziness ( $r = 0.303$ ,  $p < 0.01$ ), upset stomach or nausea ( $r = 0.281$ ,  $p < 0.01$ ), ringing in the ears ( $r = 0.240$ ,  $p < 0.01$ ), eye strain ( $r = 0.202$ ,  $p < 0.01$ ), and loss of appetite ( $r = 0.184$ ,  $p < 0.05$ ).

## **Discussion**

The results revealed that a relatively small number of respondents reported high levels of emotional exhaustion, compared to that reported in previous studies on the same occupational group (Oyefeso et al., 2008; Reissner et al., 2010). Nonetheless, a majority of respondents in the present study reported moderate levels of emotional exhaustion, suggesting high vulnerability to burnout in the sample. Seventeen per cent of respondents reported high levels of depersonalisation, which was the same as the rates reported by Oyefeso et al., (2008), but lower than the rates reported by Reissner et al., (2010), 17% and 25% respectively. However, the majority of participants scored in the low range for depersonalisation, suggesting that most workers feel connection with their work and themselves. None of the respondents in current study reported low levels of personal accomplishment, compared to 36% and 17.5 % reported by Oyefeso et al., (2008) and Reissner et al., (2010) respectively.

One explanation for the contrast between the findings of the current study and the previous studies would be a non-response bias, where low response rates increase the likelihood that non-respondents would significantly differ in responses. In this study the response rate was lower compared to other studies presented here. It is, however, a widely recognised problem in the literature that online surveys entail low response rate and representativeness issues (Pan, 2010 in Pan, Woodside & Meng, 2014). Online surveys are reported to have a large response rate range spanning from 6% to 75% (Sheehan & McMillan, 1999). Additionally,



lengthy surveys and surveys of sensitive nature have been found to have lower response rates (Edwards et al., 2002). The current study was a part of a bigger study involving a lengthy survey with questions of a sensitive nature.

Another explanation for the contrast in findings could be that the sample studied had better coping strategies, serving as a protective factor against burnout and subsequent stress related symptoms. Reissner et.al (2010) reported that active coping strategies and higher self-efficacy were positively linked to higher job satisfaction and lower levels of burnout among drug and alcohol workers. Recent systematic review of occupational stress in healthcare workers (Ruotsalainen, 2014), revealed that stress and low job satisfaction resulted in large part from limited coping resources and discrepancies in expectations about work and its reality. To some extent, the sample studied might have been better prepared for their roles through lived experience with addiction. The organisation from which the sample was selected, supports service users into employment through special mentoring programs, followed by work experience, which prepares potential employees for the reality of the job and teaches necessary skills, potentially reducing the risk of discrepancies in expectations about work and its reality reported by Ruotsalainen (2014). It is also possible that for those with lived experience of addiction, the job itself is more of a vocation rather than just a job.

On the other hand, however, lived experience of addiction and the 'ex-addict' stigma can also have negative repercussions for practice, such as over involvement with work and feelings of inadequacy, leaving little space for involvement in voluntary surveys which may be seen as threatening as it exposes worker's coping abilities and vulnerabilities. This could hypothetically explain the low response rate in this study, and it finds support in a systematic review by Edwards et al., (2002) who found that surveys of sensitive nature were less likely to be returned. Additionally, the most recent review of literature on recovered addicts in substance misuse field (Doukas & Cullen, 2010) suggests that recovered counsellors, who often enter the field at an older age and who missed opportunities for education, may overcompensate for their lack of training or feelings of incompetency by over-involvement

with work and with clients. This hard work may be misconceptualized by other staff as high performance and be welcomed (Doukas and Cullen, 2010), what together with existing organisational strains (Garner, 2007) create poor working conditions and can lead to burnout and turnover. In addition to these pressures is the continuous exposure to triggers which results in increased reports of low-mood (Sinha, Fuse, Aubin, & O'Malley, 2000) what can be a precursor to burnout, and what increases risk of relapse (Sinha & Li, 2007). Finally, the widely used single measure of effectiveness of drug and alcohol treatment, a total abstinence as opposite to improvements in users' overall functioning, and low rates of so understood treatment success may lead to workers' disappointment with this client group (Jöhncke, 2009), potentially leading to burnout.

Although the prevalence of burnout was low in the sample, the average levels of burnout remained in the same range as the levels reported in studies on similar cohorts, indicating continuous vulnerability in this occupational group. The average emotional exhaustion score reported in the study was 18.38, compared to 21.1 and 19.07 reported by Oyefeso (2008) and Reissner et al.,(2010) respectively, but higher than in British mental health workers (16.9) (in Oyefeso et al., 2008). The average level of depersonalisation reported in the study (7.24) was higher compared to results reported by Oyefeso et al., (2008) and Reissner et al. (2010), 6.1 and 5.14 respectively. However, the average level of personal accomplishment reported in the current study was high (21.31), compared to moderate levels reported by both Oyefeso et al., (2008) (35.4), and Reissner et al., (2010) (35.47), indicating that despite elevated emotional exhaustion, most respondents were still satisfied with their performance. These findings give some support to the findings of Collins (2008) who reported that despite elevated levels of stress in British social workers, the levels of satisfaction (concept similar to personal accomplishment) with their work remained high due to good use of support and coping resources.

There was a strong positive correlation found between all three burnout components and incidence of physical symptoms. This gives support to the findings by Belcastro et al., (in

Garner, 2007), Nixon et al., (2011) and Peterson et al., (2008), but is novel in a way that it reveals correlations between a variety of specific stress related physical symptoms and the three components of burnout. The strongest association was found for emotional exhaustion, followed by depersonalisation, and then personal accomplishment, with higher burnout severity linked to more physical symptoms. Emotional exhaustion was linked to most stress related physical symptoms, followed by depersonalisation, and personal accomplishment. Tiredness and fatigue had the strongest correlation with all the three components of burnout, suggesting it is the most significant symptom of burnout. Trouble sleeping was most strongly correlated with emotional exhaustion, suggesting that a person with burnout may not get adequate rest from sleep, despite feeling emotionally exhausted. Headache had a stronger correlation with depersonalisation and diminished personal accomplishment.

These results suggest that somatic symptoms could be used as an indicator of burnout, both by individuals and health professionals, and could inform interventions to diagnose and help prevent burnout from escalating from low to high levels, in individuals prone to burnout.

### ***Limitations***

There were several limitations identified in the study, largely due to the design of the study and the sample. Firstly the study utilised cross-sectional design, which did not allow for the determination of the causal relationships between variables. Since the majority of research reported in the literature, concerning stress, burnout and health morbidity in human services, relies on cross-sectional approach, causality and stability of these variables over time may have not been investigated completely. Future research should employ longitudinal approach for better explanation of the relationship between these variables.

It was not possible to determine the extent of non-response bias, as at the time of the study there was no information available relating to the characteristics of drug and alcohol staff in the selected services. Therefore, as the response rate was very low (5%) it was recognised that non-response bias might have affected the findings, in such way that non-respondents may have differed in their experiences of work stress, satisfaction, burnout and health outcomes.

### ***Study implications***

Despite the limitations, the study provided practical information relating to burnout vulnerability and associated physical symptoms in this specific occupational group. These findings can support employers to address staff wellbeing with a view to prevent burnout and reduce existing levels of burnout and related somatic symptoms, and improve job performance, job satisfaction, and staff retention through making appropriate adjustments, such as developing staff-wellbeing programmes. These adjustments could potentially contribute to improvement in substance misuse practice, through maintenance of healthy and satisfied workforce.

Additionally, these findings indicate that physical symptoms could be used as indicators of burnout, aiding health professionals in diagnosing burnout, and preventing it from escalating from low to high levels. Nonetheless, there are still unexplored relationships between various stressors, sociodemographic characteristics, job characteristics, burnout and stress related symptomatology. Personality, coping styles, attitudes towards work, mental health history, secondary trauma, locus of control and lived experience of addiction are some examples of potential moderators of these relationships, which should be investigated in future studies on stress and burnout amongst drug and alcohol workers.

### ***Conclusion***

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In the sample of drug and alcohol workers studied the reported levels of burnout were moderate suggesting vulnerability similar to other human services occupational groups, however, higher than in mental health. Moreover, there was strong association found between burnout and incidence of stress related somatic symptoms, with higher levels of burnout related to multiple symptoms. Thus, a direct response aimed at the prevention and management of burnout and stress related symptomatology in drug and alcohol workers is required, and should be integral to the development and maintenance of a healthy workforce.

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