

The Prevalence and Severity of Burnout among Physiotherapists in an Arabian Setting and the Influence of Organizational Factors: An Observational Study

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Abstract. Burnout has been shown to be present in different health professions, but the prevalence among physiotherapists working in an Arabian setting has not been established. [Purpose] This study aimed to investigate the burnout levels of physiotherapists working in Saudi Arabia and the association of burnout with work and organization-related factors. [Subjects and Methods] A cross-sectional study was conducted at government hospitals in Saudi Arabia. One hundred and nineteen Saudi physiotherapists were included. They electronically completed a questionnaire that included the Maslach Burnout Inventory and the Areas of Worklife Survey. [Results] Participants showed a moderate degree of burnout as reflected by mean scores of the three subscales of the Maslach Burnout Inventory. The majority of participants demonstrated moderate to high burnout levels across the three subscales. A significant association was found between the exhaustion subscale and the subspecialty in which participants worked. A strong association was found between workload and exhaustion subscale scores. [Conclusion] This study was the first to explore burnout and related factors among physiotherapists in an Arabian setting. A moderate degree of burnout and associations of burnout with work and organizational factors were found. The findings may help human resource planning and managing the physiotherapy services.

Key words: Burnout, Health professional, Workplace

(This article was submitted Jan. 9, 2014, and was accepted Feb. 16, 2014)

INTRODUCTION

Burnout is a response to chronic work-related stress. It is regarded as a major public health problem and a cause of concern for health care policy. Burnout has been described as a psychological process in which professionals are overwhelmed by the stresses of their job¹⁾, and it is characterized by exhaustion, cynicism and reduced professional efficacy within the workplace²⁾. Professionals who work in services that involve interaction with other humans have been found to be at a high risk of burnout as a result of the psychological and emotional demand of the relationships they form with their clients³⁾. In particular, health care professionals, such as physicians, nurses and allied health practitioners, are at high risk of burnout as they work in emotionally demanding situations and are exposed to their clients' psychological and physical problems⁴⁾. Physiotherapists can easily develop burnout and this is an area of concern for the physiotherapy profession and may adversely affect the quality of patient care^{5–7)}. In common with other healthcare profes-

sionals, the prolonged contact and continuous care provided by physiotherapists to clients can be emotionally draining and exceedingly stressful³⁾.

Burnout has been shown to have a negative impact on occupational indicators, such as job performance, job satisfaction, absenteeism and staff turnover⁷⁾. Furthermore, burnout symptoms have been linked to a variety of mental and physical health problems, such as depression, insomnia and gastrointestinal disturbance⁸⁾. Thus, burnout is an important problem with significant sequelae of considerable interest to healthcare managers.

Despite the number of studies on the factors leading to, or contributing to burnout, relatively few have explored organizational factors⁹⁾. A number of organizational factors have been suggested as being associated with burnout, including excessive workload, inadequate rewards, poor interpersonal working relationships and unfair treatment⁴⁾. Leiter and Maslach¹⁰⁾ suggested that burnout results from a mismatch between people and their work environment. They identified six factors contributing to the work environment that had the potential to lead to burnout, namely, workload, community, control, rewards, fairness and value congruence^{10, 11)}. An increased awareness of these organizational stressors may enable managers to identify ways of reducing staff burnout and enhancing engagement with their work¹¹⁾.

To date, it would appear that no studies have investigated

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the prevalence of burnout among physiotherapists working in an Arabian setting. Therefore, the aim of this study was to determine the prevalence and severity of burnout among physiotherapists working in an Arabian setting and to explore factors, particularly organizational, that might impact on this.

SUBJECTS AND METHODS

Subjects

The subjects were Saudi physiotherapists currently practicing in government hospitals in Saudi Arabia. Physiotherapists with more than two years' experience after internship were included.

Methods

A cross-sectional study was conducted to explore the prevalence of burnout and associated factors in the three major provinces of Saudi Arabia (i.e. Riyadh, Makkah and Eastern provinces) where most of the major governmental hospitals are located. Online questionnaires were sent via email to the Saudi Physical Therapy Association and letters of invitation (with an URL link to the questionnaires) were included. Based on Ministry of Health database, the total numbers of physiotherapists who were working in the three major provinces were 236. Ethical approval was obtained from King Saud University Research Board.

A questionnaire was developed including preliminary questions requesting personal (e.g., age, gender) and work-related information (e.g., work position, subspecialty). The latter information included a question regarding work-related factor, with participants asked to indicate the number of days they were absent from work (and reasons) during the previous month. The questionnaire also incorporated the Maslach Burnout Inventory- General survey (MBI-GS)^{12, 13}. The MBI is frequently used to assess burnout and has been tested and validated across a wide range of occupations including managers, technologists, therapists and nurses¹². It is self-reported and consists of 16 items across three subscales: exhaustion, cynicism and professional efficacy. The exhaustion items are generic and include references to fatigue (e.g., "I feel burned out by my work"). The cynicism items reflect indifference or a distant attitude towards work (e.g. "I have become less enthusiastic about my work"). The professional efficacy items focus on different aspects of occupational accomplishments and an individual's expectations of their continued effectiveness at work (e.g., "I can effectively solve the problems that arise in my work"). Responses to each survey item, which reflect the frequency with which the feelings occur, are scored on a Likert scale that has a range from 0 (never) to 6 (daily). Then scores for each subscale are added and calculated separately. A high level of burnout is reflected in high scores on the exhaustion and cynicism subscales and a low score on the professional efficacy subscale. Moderate burnout corresponds to moderate scores in each subscale and low burnout is reflected by low scores in the exhaustion and cynicism subscales and a high score in the professional efficacy subscale. Subscales scores are considered high if they are

in the upper third of the normative distribution, average if they are in the middle third and low if they are in the lower third^{12, 13}.

The Areas of Worklife Survey (AWLS) questionnaire was also incorporated in the questionnaire in order to measure therapist's relationship to their work¹⁰. The AWLS identifies six areas of work environment most relevant to the relationships people develop at work. It is self-reported and consists of 29 items that make up six subscales: manageable workload, 6 items (e.g., "I do not have time to do the work that must be done"); control, 3 items (e.g., "I have control over how I do my work"); reward, 4 items (e.g., "I receive recognition from others for my work"); community, 5 items (e.g., "People trust one another to fulfill their roles"); fairness, 6 items (e.g., "Resources are allocated fairly here"); and values, 5 items (e.g., "My values and the organization's values are alike"). The items are worded as statements of perceived congruence or incongruence between the individual and the job. Each subscale includes positively worded items of congruence e. g., "I have enough time to do what's important in my job" (manageable workload) and negatively worded items of incongruence, e.g., "working here forces me to compromise my values" (values). Participants indicate their degree of agreement with these statements on a 5-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). The scoring for negatively worded items is reversed. For each of the six subscales, the AWL measure defines congruence as a high score (greater than 3.00) indicating a higher degree of perceived match between the workplace and the participant's preferences, while lower scores (less than 3.00) indicate greater perceived mismatch¹⁰.

The prevalence of career burnout from the MBI with regard to the three subscales of exhaustion, cynicism and professional efficacy were calculated according to the instructions provided by Maslach et al.¹², including means and standard deviations. The relationship between the demographic variables and the burnout subscales were calculated using the χ^2 test. Descriptive analyses were conducted to assess therapists' relationship with their work using data from the AWLS. The relationship between burnout levels measured with the MBI and work-related factors measured using the AWLS were calculated using Pearson correlation coefficients.

RESULTS

One hundred and seventy-one questionnaires were completed and the rate of response was 72.4%. After excluding those who did not fit the inclusion criteria, the final sample consisted of responses from 119 participants. The general characteristics of the sample are shown in Table 1: 75 (62%) were females, the majority (74%) were aged between 23 and 33 years, and most (76%) lived in Riyadh province. Most of the participants worked in clinical positions (92%) and the majority held a bachelor degree (77%). The majority of participants worked 6–8 hours per day (61%) and saw 10 or fewer patients per day (66%). The majority (66%) reported no work absenteeism in the previous month but, for those

Table 1. General characteristics of the 119 subjects

Characteristics	Number (%)
Gender *	
Male	44 (37)
Female	74 (62)
Age (years) *	
23–33	88 (74)
34–44	23 (19)
44–55	4 (3)
Marital status *	
Single	55 (46)
Married	62 (52)
Province	
Riyadh	90 (76)
Makkah	19 (16)
Eastern	9 (8)
Other	1 (1)
Highest educational level	
Bachelor	92 (77)
Masters	26 (22)
PhD	1 (1)
Type of hospital *	
Governmental	66 (93)
Other	7 (6)
Position *	
Administrator	8 (7)
Clinical supervisor	13 (11)
Senior clinician	39 (33)
Junior clinician	57 (48)
Other	1 (1)
Subspecialty *	
Orthopedics	28 (24)
General	26 (22)
Neurology	19 (16)
Pediatrics	16 (13)
Inpatients	8 (7)
Hands	5 (4)
Cardiopulmonary	5 (4)
Other	5 (4)
Average working hours per day	
6–8	73 (61)
9–11	45 (38)
12–14	1 (1)
Average number of patients seen per day *	
≤ 10	79 (66)
11–16	31 (26)
17–23	7 (6)
Reasons for work absenteeism in the previous month *	
Not absent	78 (66)
Health, medical	17 (14)
Social	8 (7)
Work	5 (4)
Other	3 (3)
Health, psychological, work	1 (1)

* Total sample size does not equal 119 due to missing data

Table 2. Data from the Maslach Burnout Inventory

Subscale	
Exhaustion, Mean ± SD*	14.2 ± 7.3
Category, number (%)	
High (≥ 16)	50 (42.0)
Moderate (8–15)	45 (37.8)
Low (0–7)	23 (19.3)
Cynicism, Mean ± SD*	10.6 ± 6.5
Category, number (%)	
High (≥ 13)	40 (33.6)
Moderate (6–12)	47 (39.4)
Low (0–5)	28 (23.5)
Professional efficacy, Mean ± SD*	26.4 ± 7.1
Category, number (%)	
High ≥ 30	45 (37.8)
Moderate (24–29)	37 (31)
Low (0–23)	34 (28.5)

*Exhaustion subscale: ≥16 high, moderate 8–15, low 0–7.
Cynicism subscale: high ≥13, moderate 6–12, low 0–5.
Professional efficacy subscale: high ≥30, moderate 24–29, low 0–23

who had been absent from work, this was most often for health-related reasons (Table 1).

Table 2 summarises data from the MBI regarding the prevalence of burnout among the participants. The prevalence of a high exhaustion level was found in 50 participants (42%). Regarding the cynicism subscale, 47 of participants (39.4%) had a moderate level. However, forty-five of the subjects showed a high professional efficacy level (37.8%). The mean scores for the entire sample for the exhaustion, cynicism and professional efficacy subscales indicate that physiotherapists in this sample had moderate levels of burnout (Table 2). The prevalence of high burnout level (high exhaustion, high cynicism and low professional efficacy) was found to be only 7.5% in this sample. The relationships between the three burnout subscales of the MBI and the general characteristics of the subjects are shown in Table 3. A significant association was found between scores on the exhaustion subscale of the MBI and subspecialty ($p=0.01$), and the association between professional efficacy scores and job position approached statistical significance ($p=0.05$). However, due to the limited number of subjects in some categories, the result did not show which subspecialty or position was associated with higher level of burnout.

The scores for the AWLS are shown in Table 4. The scores of workload and fairness indicate an overall tendency towards mismatches more often than matches. This indicates that participants perceived that the amount of workload and organizational justice were inconsistent with their expectations. However, control, reward, community and value scores indicate an overall tendency towards matches more often than mismatches. This indicates that participants perceived that the organizational values and the quality of social interaction in the workplace were consistent with their expectations. The results also indicate that the participants had the opportunity to be actively involved in

Table 3. Association between Maslach Burnout Inventory subscale scores and general characteristics

	Exhaustion χ^2 (p value)	Cynicism χ^2 (p value)	Professional efficacy χ^2 (p value)
Gender	0.05 (0.97)	0.58 (0.74)	0.45 (0.49)
Age	2.4 (0.65)	3.6 (0.46)	4.3 (0.11)
Marital status	0.63 (0.72)	1.3 (0.50)	0.89 (0.34)
Province	4.4 (0.62)	6.1 (0.40)	2.3 (0.50)
Educational level	2.4 (0.65)	3.6 (0.46)	2.4(0.28)
Residency	2.1 (0.33)	1.9 (0.37)	1.2 (0.26)
Type of contract	8.2 (0.08)	2.2 (0.69)	2.3 (0.30)
Position	7.8 (0.45)	3.8 (0.87)	9.1 (0.05)
Subspecialty	28.6 (0.01)*	15.6 (0.33)	12.9 (0.07)

* Significant at $p < 0.05$ level**Table 4.** Data from the Areas of Worklife Survey (Mean \pm SD)

Subscales	Mean* \pm SD
Manageable workload	2.87 \pm 0.72
Control	3.46 \pm 0.84
Reward	3.23 \pm 0.85
Community	3.31 \pm 0.84
Fairness	2.70 \pm 0.74
Values	3.09 \pm 0.74

*Match if Mean > 3 , Mismatch if Mean < 3 **Table 5.** Correlations between Maslach Burnout Inventory and Areas of Worklife Survey data

Areas of Worklife Survey subscales	Maslach Burnout Inventory subscales Pearson Correlation Coefficient		
	Exhaustion	Cynicism	Professional efficacy
Workload	-0.553 *	-0.183	-0.075
Control	-0.263 *	-0.104	0.274 *
Reward	-0.236 *	-0.438 *	0.243 *
Community	-0.137	-0.207 *	0.395 *
Fairness	-0.339 *	-0.358 *	0.120
Values	-0.323 *	-0.306 *	0.298 *

* Significant at $p < 0.05$ level

decision-making, and they were rewarded for their contribution.

As summarised in Table 5, analyses of the relationship between burnout levels measured using the MBI and work-related factors measured using the AWLS indicated significant inverse relationships existed between the exhaustion subscale of the MBI and manageable workload, control, reward, fairness and values. Similarly, significant inverse relationships were demonstrated between cynicism scores of the MBI and reward, community, fairness and values. For professional efficacy, significant positive relationships were found with control, reward, community and values.

DISCUSSION

The aim of this study was to explore the prevalence and severity of burnout among physiotherapists working in an Arabian setting and factors affecting burnout. The results demonstrate that a moderate level of burnout existed among the subjects, and that it was significantly associated with the six areas of organizational worklife explored.

These findings regarding the prevalence and severity of burnout agree with previous studies^{14, 15} which have also reported moderate burnout levels among physiotherapists. Personal characteristics (e.g. gender) of the physiotherapists in this study did not have a significant relationship with burnout, which is also in agreement with other studies of physiotherapists^{4, 15}. A significant association was found, however, between the exhaustion subscale of the MBI and

subspecialty. Thus, it would seem that burnout amongst physiotherapists may differ according to factors such as the subspecialty in which the physiotherapist works. For example, working in the subspecialty of orthopaedics may be less demanding than working in a rehabilitation setting³. An almost significant relationship was found between physiotherapists' sense of professional efficacy and their job position. This may reflect that less experienced physiotherapists usually have higher expectations of themselves, which may put them under higher stress¹⁶. Furthermore, being in a superior role could reduce direct client contact, which in turn may reduce stress, since direct patient contact has been shown to be the main antecedent to burnout among health professionals¹⁷. Moreover, an individual who has progressed to a superior job position may be more likely to perceive their work environment as being fair, which in turn may reduce burnout, particularly in the subscale of cynicism¹⁸. The progression to a higher job position may also signify to individuals that they are making a positive contribution to their working environment, which may help to counter any feelings of diminished professional efficacy^{19, 20}.

Excessive workload is an important factor of burnout, especially with respect to exhaustion¹¹. The ability to effectively manage a workload, leads to the perception that an employee has the ability to control and solve the overload and decrease exhaustion. However, in the present study,

participants indicated an unamenable workload that mismatched their expectation. In addition, there was an inverse relationship between workload and professional efficacy, that is, the higher the workload the lower the individual's professional efficacy scores. Although this relationship was not statistically significant, this inverse relationship may reflect that at times covering a high workload may lead to better recognition from the organization but the efficacy of their treatment might decrease⁸⁾. Our results show that workload was the factor most closely related to exhaustion, which is consistent with the inverse relationship between manageable workload and exhaustion reported in the present study as well as in previous studies involving physiotherapists^{6, 15, 21)}.

Physiotherapists in the current study reported a higher mean for control than any other of the six worklife factors. In addition, they reported control in their organizations that matched their expectation which suggests that they had sufficient autonomy to effectively control their workload. In agreement with previous studies¹⁰⁾, the current study found that control was consistently associated with higher professional efficacy and lower exhaustion levels. Thus, having sufficient work control may have been instrumental in increasing subjects' perception of achievement (i.e., professional efficacy) and reducing their levels of exhaustion. Physiotherapists in the present study also recognized that their contributions were acknowledged by their organizations. The findings of the present study are also in agreement with those of previous studies that showed a significant relationship between reward and levels of cynicism^{4, 6)}. Rewards and punishment and how they are linked to performance are associated with raising the sense of engagement at work. Aside from career rewards, the reward that physiotherapists achieve from seeing their patients recover is very important in counteracting burnout and keeping them dedicated to their job²²⁾.

Physiotherapists in the current study reported that the social community within their organizations was consistent with their expectations, which may indicate effective communication in the work place. Social support, sharing comfort and supporting people who you like and respect, is considered an important coping resource, particularly for health professionals²³⁾. This might be an important factor especially for cynicism and professional efficacy⁴⁾. Hence, the physiotherapists who responded to the study were able to adapt well to the climate of the community in their organization which in turn would have helped them to manage their level of burnout.

The current study found that the fairness subscale scored the lowest of the six areas covered in the AWLS. This low score for fairness may reflect that participants perceived that they had a lack of equal opportunity for further improvement and a lack of faith in their superiors, both of which are considered important factors contributing to exhaustion and cynicism among participants, in the present study as well as in previous studies¹⁴⁾. Lack of fairness could increase burnout in two ways: first, the experience of unfair treatment is mentally exhausting, and people react with anger and anxiety when they are unfairly treated¹⁹⁾;

second, unfair decisions may indicate a weak administration in which the personal biases of people in authority dominate the allocation of resources and access to opportunity¹⁸⁾. In addition, the willingness of administration to have discussions, review roles and share plans and actions with employees may provide a chance to modify unpleasant decisions. Thus, the development and promotion of a sound organizational framework can be used to raise employees' levels of fairness¹⁸⁾.

Participants in the current study perceived that their values were consistent with the values of their organizations. It has been shown that if organizational values match employee values, work engagement will increase²¹⁾. The relationship between employees' sense of organizational identity and their own sense of who they are and what they stand for is very important and is closely connected employees' levels of motivation²⁴⁾. Organizations that actively practise their stated missions are considered to be the most powerful as this supports their employees and enhances their engagement with work¹⁸⁾. In addition, the interest of the institutions in ensuring that their employees know about their overall objectives might be an important factor for a match between organizational values and clinician values.

The current study had a number of limitations. The response rate that we calculated was based on the number of physiotherapists who were working in Ministry of Health hospitals. It was not possible to estimate the accurate response rate due to a lack of data regarding the number of physiotherapists who were working in governmental hospital in other sectors. In retrospect, we considered the survey was overly long, which may have led to many uncompleted surveys. Although considerable efforts were made to contact non-responders to encourage them to participate, it is possible that they were too busy with work demands to respond. This in itself may have resulted in a biased sample, thus limiting the generalizability of the study.

In conclusion, this study found a moderate level of burnout among Saudi physiotherapists working in Saudi Arabia, with burnout levels significantly associated with different factors. This study also investigated and highlighted the importance of work and organizational factors contributing to burnout level.

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