

Review Article

Open Access, Volume 3

Psychological effects of burnout among health workers**Elizabeth Yeboah^{1,5}; Francisca Arboh²; Eric Atta Quainoo^{3,4*}**¹Department of Psychology, University of Ghana, Legon-Accra, Ghana.²Department of Management Science and Engineering, Jiangsu University, Jiangsu, China.³Faculty of Education, Beijing Normal University, Beijing, China.⁴Department of Education, Wesley College of Education, Kumasi, Ghana.⁵Korle-BU Teaching Hospital, Accra, Ghana.***Corresponding Author: Eric Atta Quainoo**Faculty of Education, Beijing Normal University,
Beijing, China

Email: equainoo767@yahoo.com

Abstract

Stress and burnout among human service professionals have been considered by researchers as an endemic affecting the quality-of-service delivery within the profession. A cross-sectional survey research method through a quantitative approach was used in exploring the psychological effects of burnout among health professionals. Through stratified and simple random sampling procedures, 150 health workers (90 from Korle-Bu Teaching Hospital and 60 from Ridge Hospital) were sampled and responded to a standardized burnout questionnaire designed by Maslach (Maslach burnout inventory 2008). Frequencies, percentages, means, standard deviation, and t-test were used to analyze the data. The findings of the study rejected the hypothesis that experienced doctors will experience less burnout than inexperienced doctors. Again, the finding of the study indicated that there is an age barrier when it comes to burnout, thus, younger health workers experience burnout more than older health workers. The outcome of the study further rejected the fact that there is a correlation between gender and the level of burnout. The study concluded that as burnout was closely related to age and experience as a more source of stress and burnout among doctors, management and staff of the health institution must consider appropriate measures to alleviate job stress and burnout.

Keywords: Stress; Burnout; Health workers.**Introduction**

Burnout in human service occupations is of interest to researchers and practitioners in the health sector because of its effects on productivity and service delivery. Within the health sector, stress and the effects of burnout among health professionals are crucial because the focus of health and medical practice has always been the improvement of the general well-being of people. It encompasses activities that are directed at improving human physical and psychological conditions and alleviating human distress and medical problems. As such, health workers must not be heavily burdened with stress but be happy with

their work so that they can deal with human feelings and problems using the specific skills, knowledge, and values of health work practice. Despite this, Health professionals experience stress and burnout by the very nature of their work and maybe more at risk than their colleagues in other areas or occupations.

Burnout is a process that begins with excessive and prolonged levels of job tension. This stress produces strain in the worker including feelings of tension, irritability, and fatigue. The process is completed when the workers defensively cope with the job stress by psychologically detaching themselves from the job and becoming apathetic, cynical, and rigid [6]. Again, one

can describe burnout as a point at which important, meaningful, and challenging work becomes unpleasant, unfulfilling, and meaningless. Energy turns into exhaustion, involvement leads to cynicism, and efficacy is replaced by ineffectiveness. In a simple term, burnout is described as a concept with three separate dimensions; emotional exhaustion, depersonalization, and reduced accomplishments at work.

In a health or hospital environment, health workers address the physical and psychological factors that are either contributing causes of medical ailments or are side effects of a medical condition that must be dealt with to facilitate recovery and prevent occurrences of non-functional dependence. The health worker in a hospital is a team member who works closely with other health care professionals and experts. He/she carries many roles and responsibilities and his/her practice contributes towards the overall assessment, diagnostics, and treatment plan. It is therefore important that the health professional does not get burnout so that his or her contributions and services to patients are equally effective.

Stress and burnout among human service professionals have been considered by researchers as an endemic affecting the quality-of-service delivery within the profession. The issue of burnout among health workers is no exception as it is said to have serious effects not only on the professionals/ workers themselves but also on the health care delivery as well as the general relationship that exists between patients and health workers. Different scholars [11,27] regarded Health workers as a professional who was prone to burnout easily due to its specific service natures which required strong emotional involvement and often functioned within the framework of crisis intervention model. It is obvious that the consequences of burnout are potentially serious for the professionals; the patients and the sector (i.e., Health Sector) as well. For instance, patients who visit health centers are often seen complaining of being humiliated, maltreated, and sometimes disappointed by the health professionals who have to offer effective and efficient health care services to patients.

These problems of stress and psychological burnout are often traced to various factors. The phenomenon is often viewed as the consequences of a complex interaction between a person's character (i.e., being too empathetic, idealistic, altruistic, and over-committed in the service of others to the detriment of self) and the characteristics of the work environments [19]. Although numerous scholars are investigating the causes and effects of burnout among different service settings, a limited number of local empirical researches relating to the phenomenon of burnout among family social workers are found. It is, therefore, worthwhile to explore the topic to understand the general situation of burnout among health professionals.

Literature review

Maslach burnout model and inventory

According to Maslach Burnout Model and Inventory theory/conceptualization [21,24] burnout is viewed as a syndrome that consists of three dimensions: Emotional exhaustion, depersonalization, and reduced personal accomplishment. Emotional exhaustion refers to feelings of being depleted of one's emotional resources. This dimension was regarded as the basic individual

stress component of the syndrome [25]. Depersonalization, referring to the negative, cynical, or excessively detached response to other people at work, represents the interpersonal component of burnout. Reduced personal accomplishment, referring to feelings of decline in one's competence and productivity and one's lowered sense of self-efficacy, represents the self-evaluation component of burnout [23]. Subsequently, Maslach and her colleagues modified the original definition of the latter two dimensions [25]. Depersonalization was replaced by cynicism, referring to the same cluster of symptoms. Cynicism is an emerging concept in psychology and organizational behaviour, used to refer to negative attitudes involving frustration, disillusionment, and distrust of organizations, persons, groups, or objects [1,10] has suggested that work cynicism, one of the forms of cynicism that she had identified in her research, tends to be closely related to burnout. The third dimension was re-labelled as reduced efficacy or ineffectiveness, depicted to include the self-assessments of low self-efficacy, lack of accomplishment, lack of productivity, and incompetence [25]. Each of these concepts, namely self-efficacy, accomplishment or achievement, personal productivity or performance, and personal competence, represent well-known distinct fields of research in the behavioural sciences. The MBI has been the most popular instrument for measuring burnout in empirical research [33]. It contained items purportedly assessing each of the three clusters of symptoms included in the syndrome view of burnout, i.e., emotional exhaustion, cynicism or depersonalization, and reduced effectiveness or lowered professional efficacy. In meta-analytic reviews, it is the most responsive to the nature and intensity of work-related stress [33].

Pines' burnout model and measure

Pines and her colleagues defined burnout as the state of physical, emotional, and mental exhaustion caused by long-term involvement in emotionally demanding situations [29]. This view does not restrict the application of the term burnout to the helping professions, as was initially the case with the first version of the MBI [37]. A possible drawback is that this approach does not view burnout in a work context. Indeed, it was applied not only to employment relationships and organizational careers [29] but also to marital relationships and the aftermath of political conflicts [30]. Much like the MBI, the conceptualization of burnout emerged from clinical experiences and case studies. In the process of actually constructing a measure that purported to assess burnout, dubbed the BM, Pines and her colleagues have moved away from the definition offered above. In the BM, Pines and her colleagues view burnout as a syndrome of co-occurring symptoms that include helplessness, hopelessness, entrapment, decreased enthusiasm, irritability, and a sense of lowered self-esteem [30]. None of these symptoms is anchored in the context of work or employment relationships. The BM is considered a one-dimensional measure yielding a single composite burnout score. The overlap between the conceptual definition and the operational definition is minimal. In addition, the discriminated validity of burnout, as assessed by the BM, relative to depression, anxiety, and self-esteem, is impaired [36]. This has led researchers to describe the BM as an index of psychological strain that encompasses physical fatigue, emotional exhaustion, depression, anxiety, and reduced self-esteem [32].

Shirom-Melamed burnout model and measure (S-MBM)

The conceptualization of burnout that underlies the Shirom-Melamed Burnout Measure (S-MBM) was inspired by the work of Maslach and her colleagues and Pines and her colleagues, as described above. Burnout is viewed as an affective state characterized by one's feelings of being depleted of one's physical, emotional, and cognitive energies. Theoretically, the S-MBM was based on Hobfoll's (1998) Conservation of Resources [COR] theory. COR theory's basic tenets are that people have a basic motivation to obtain, retain, and protect that which they value. The things that people value are called resources, of which there are several types, including material, social, and energetic resources. The conceptualization of burnout formulated by Shirom based on COR theory [16] relates to energetic resources only and covers physical, emotional, and cognitive energies. Burnout thus represents a combination of physical fatigue, emotional exhaustion, and cognitive weariness. According to COR theory [14], stress at work occurs when individuals are either threatened with resource loss, lose resources, or fail to regain resources following resource investment. One of the corollaries of COR theory is that stress does not occur as a single event, but rather represents an unfolding process, where in those who lack a strong resource pool are more likely to experience cycles of resource loss. The affective state of burnout is likely to exist when individuals experience a cycle of resource loss over some time at work [15]. There are three reasons for the focus on the combination of physical fatigue, emotional exhaustion, and cognitive weariness in the conceptualization of burnout that has led to the construction of the S-MBM. First, these forms of energy are individually possessed and theoretically are expected to be closely interrelated. COR theory postulates that personal resources affect each other and exist as a resource pool, and that lacking one is often associated with lacking the other [16]. Empirical research conducted with the S-MBM has supported the linkage among physical fatigue, emotional exhaustion, and cognitive weariness [35]. Second, the three forms of individually possessed energy included in the S-MBM represent a coherent set that does not overlap any other established behavioral science concept, like depression and anxiety, or like aspects of the self-concept such as self-esteem and self-efficacy. Third, the conceptualization of the S-MBM differentiates burnout from stress appraisals antecedent to burnout, from coping behaviors that individuals may engage in to ameliorate the negative aspects of burnout like distancing themselves from client recipients, and from probable consequences of burnout like performance decrements. This stands in contrast to the two other conceptualizations of burnout outlined above.

Review of related studies

One of the findings of their studies the burnout, Schaufeli and Enzmann (1998) indicated that adverse work conditions have been shown significantly in the etiology of burnout than personality factors. The lesson to burnout researchers is that it is plausible that individual/ personal factors predisposing workers/ professionals to burnout interact with organizational features that are conducive to the development of burnout. As an example, when a major health problem moves management to require that all health professionals increase their input of available personal energy and time to ensure the patients' survival, those workers who endure are more likely to experience burnout as a result [8].

One of the predictions of COR theory is that individuals who

lack strong resources are more likely to experience cycles of resource losses. When not replenished, such cycles are likely to result in chronic depletion of energy, namely progressive burnout. Cherniss (1995) posited that the advance of burnout is contingent upon individuals' level of self-efficacy, and there is some support for this contention [4]. Lower levels of burnout would be expected in work situations that allow employees to experience success and thus feel efficacious, namely under job and organizational conditions that provide opportunities to experience challenge, control, feedback of results, and support from supervisors and co-workers [4]. Thus, Chang and his colleagues [5] found, in a study of working college students, that optimism was a potent predictor of the emotional exhaustion scale of the BMI even after the effects of stress were controlled. Chang et al. (2000) concluded that concrete affirmation of job accomplishments, such as by merit awards, and increasing employees' optimistic expectancies may lower their risk for job burnout.

Studies by Pines (1996) also found that autonomy was positively correlated with job satisfaction and negatively correlated with burnout. It was confirmed by the study of Hansung and Madeleine (2008) showing that job autonomy interacted with role stress in predicting burnout, while social support interacted with role stress in predicting turnover intention among social workers. In short, the extent to which a certain work environment provided discretion and enabled people to decide on their own how to do their work influenced their sense of control over the environment [31].

Pines, Aronson, and Kafry (1981) undertook a study on the gender correlation with burnout level. The study revealed that female social workers felt more environmental pressures, a greater level of burnout than male counterparts while Lingard and Francis (2006) failed to identify significant differences between gender and burnout in their study. Thus, not all studies presented consistent findings on the association between gender and burnout. Burnout has also been linked to several negative organizational outcomes, including increased turnover and absenteeism, lower organizational commitment, and the self-reported use of violence by police persons against civilians [17].

Based on six studies, Schaufeli and Enzmann (1998) concluded that self-rated performance correlated weakly with the MBI emotional exhaustion scale, with only about 5% of the variance shared. In comparison, other-rated performance or objectively assessed performance, in seven studies, was found to share only 1% of the variance with the MBI emotional exhaustion scale, and the expected negative correlations were found in only four out of the seven studies. To illustrate, Parker and Kulik (1995) reported that, after controlling for negative affectivity, the performance of nurses who were higher in their feeling of emotional exhaustion was rated lower both by the nurses themselves and independently by their supervisors. Wright and Cropanzano (1999), using the Emotional Exhaustion Scale (EE) of the MBI in a longitudinal design, reported finding a correlation of .27 between this scale and a one-item measure of global performance as assessed by the supervisors of 52 social workers over three years. In a similar vein, Wright and Bonnett (1997) found that the EE scale negatively predicted Time 2 performance (supervisor assessed, one item tapping global performance), after controlling for Time 1 performance, age, and gender, among 44 human-service personnel. These studies (including Parker & Kulik, 1995) failed to find relationships among performance and the two other MBI-derived scales, depersonalization and reduced personal accomplishment, thus lending

support to the pivotal importance of emotional exhaustion in the burnout experience.

The work of Chang and his colleagues [5] found that optimism was the potent predictor of emotional exhaustion. Chang et al, (2000) concluded that concrete affirmation of job accomplishments, such as by merit awards and increasing employees' optimistic expectancies may lower their risk for job burnout.

Courage and Williams (1987) researched gender, age, and ambiguity of workloads and the level of burnout among nurses. Their study reveals that age and gender have a great influence on emotional exhaustion and depersonalization and a study by Antoniou and his colleagues in 2000 emphatically concluded that age that is younger personnel experience more emotional exhaustion.

Shirom (1989) said that burnout research has for the most part given only nominal attention to the issues related to gender but the only exception has been those studies that examined whether women were more susceptible to burnout than men, either for burnout in general or to one of its components. These studies do not offer consistent results. Maslach and Jackson (1985) concluded that gender as an individual characteristic was not a significant predictor of burnout. Others have reported that men scored higher on depersonalization [12] and that women scored higher on emotional exhaustion. (Fitzgerald & Stark- Adamic, 1990).

Based on the aim of the study and the works of literature reviewed above, the study will test the following hypotheses;

1. *Experienced health workers are likely to experience less burnout than inexperienced health workers.*
2. *Younger health workers will experience more burnout than older health workers.*
3. *Female health workers will experience more burnout than male health workers.*

Methodology

A cross-sectional survey research method was used in exploring the concepts of the study, one that implores the quantitative method was carried out mainly at the Korle Bu Teaching Hospital and Ridge Hospital. The specific choice of the hospitals was because of the busy nature and the patients/people who visit the hospital. The population of the study included health workers in the Korle-Bu Teaching Hospital and Ridge Hospital. Through stratified and simple random sampling procedures, 150 health workers (90 from Korle-Bu Teaching Hospital and 60 from Ridge Hospital) were sampled and responded to a standardized burnout questionnaire designed by Maslach (Maslach burnout inventory 2008). The questionnaire which comprised 25 items (with a reliability coefficient of 0.90) was scored on a five-point Likert scale as Strongly Agree (5), Agree (4), Not sure (3), Disagree (2), and Strongly Disagree (1). Participants who scored 60 and above were considered to have a high level of burnout, 59-50 was considered to have a moderate level of burnout and 49 and below were considered as low level of burnout. Frequencies, percentages, means, standard deviation, and t-test were used to analyze the data. The study addressed all ethical considerations including but not limited to informed consent, anonymity, and confidentiality.

Results

This study investigated the psychological effects of burnout among health workers with a sample size of 150 doctors from Korle-Bu and Ridge Hospital. Three hypotheses were formulated and tested in connection with the aims of the study. These hypotheses included:

1. *Experienced health workers are likely to experience less burnout than inexperienced health workers*
2. *Younger health workers will experience more burnout than older health workers*
3. *Female health workers will experience more burnout than male health workers*

Table 1 : Demographic characteristics of the respondents.

Variable	N	Percentage
Gender		
Males	89	59.3
Females	61	40.7
Age:		
20-29	53	35.3
30-39	79	52.7
40-49	17	11.3
50-50	-	-
60 and above	1	7
Marital Status		
Single	67	45.4
Married	80	53.3
Divorced	2	1.3
Position		
HO	36	24.1
MO	70	46.7
PMO	2	1.3
SHO	34	22.7
SMO	8	5.2
Duration of service		
1-5 Years	98	61.8
6-25 years	52	38.2

Hypothesis 1: Experienced health workers are likely to experience less burnout than inexperienced health workers.

Hypothesis one (1) was tested using an independent t-test to compare means between experienced health workers and inexperienced health workers on burnout. In experienced health workers are those who have been practicing for 5 years and below and 98 respondents fell within this category, representing 77.4% and 52 respondents demonstrating 22.2% of the sample have been practicing for more than 5 years.

Table 2 : Summary of means, Standard deviations, and independent t-test results on the influence of experience on burnout.

Groups	N	Mean	SD	Df	t	p
Inexperience (1-5)	98	1.4694	.50163	148	-.355	.661
Experience (Above 5)	52	1.5000	.50488	-	-	-

*P>.05

From Table 2, the mean and standard deviation scores for inexperienced and experienced health workers were: inexperienced (M=1.4694, SD= .50163) and experienced (M=1.5000, SD=.50488). The result (t(148)=-.355, p= .661) indicated a non-significant difference at 0.05 significance level. This did not support the hypothesis that experienced health workers are less likely to experience burnout than Inexperienced health workers.

Hypothesis 2: Younger health workers will experience more burnout than older health workers

Hypothesis two (2) was tested using an independent t-test to compare the mean scores of younger and older health workers. From the data collected majority of the respondents fell within the ages 30-39. Seventy-nine (79) out of the 150 samples were in that group demonstrating 52.7%. Fifty-three respondents were between the ages of 20-29 indicating 35.3%. Seventeen respondents fell between the ages of 40-49 which also represent 11.3% and 1 respondent being 60 and above indicative of

Table 3 : Summary of means, Standard deviations, and independent t-test results on age and burnout.

Groups	N	Mean	SD	Df	t	p
Younger	132	1.5152	.50167	148	2.361	.000
older	18	1.2222	.42779	-	-	-

0.7%. These are represented in the Table below:

*P< .05

From Table 3, the means and standard deviation of younger and older health workers, younger health workers (M= 15.152, SD= .50167), and older health workers (M= 1.2222, SD=.42779) indicates a difference. The independent t result $t_{(148)} = 2.361$, P = .000 shows that significant different exist at 0.05 significant level. This result, therefore, confirmed the hypothesis that younger health workers will experience more burnout than older health workers.

Hypothesis 3: Female health workers will experience more burnout than male health workers

Hypothesis three (3) was tested using a t-test to compare the mean scores of males and female health workers on burnout. With Gender majority of them were males. The males were 89 representing 59.3% of the total sample and 61 were females

Table 4 : Summary of mean, standard deviation, and independent t-test scores on gender and burnout.

Groups	N	Mean	SD	Df	t	p
Male	89	1.4944	.50280	148	.423	.457
Female	61	1.4590	.50245	-	-	-

*P>0.05

and this also signifies 40.7%. These are represented in the table beneath;

From Table 4 males health workers (M= 1.4944, SD= .50280) and female health workers (M= 1.4590, SD=.50245) do not differ significantly as far as their experience of burnout is concern [$t_{(148)} = .423$, P = .457]. This result, therefore, rejects the hypothesis that female health workers will experience more burnout than male health workers.

Discussion

Duration of service and level of burnout

The findings of the study rejected the hypothesis that experienced health workers will experience less burnout than inexperienced health workers. The majority of the respondents were inexperienced health workers, ranging from house officers to medical personnel who have been working for at most 5 years. From the respondents' perspective, they turn out to be wary and stressed when they work with a lot of people, so any episode that occurs irritates them. The results indicate that majority of the inexperienced health workers suffer emotional exhaustion because they believe "they feel exhausted after daily work" and "working with people all day is a strain on them". This means that inexperienced doctors suffer only one aspect of burnout that is the emotional exhaustion and does not suffer depersonalization which refers to a negative, cynical, or excessively detached response to other people at work, represents the interpersonal component of burnout and reduced personal accomplishment, referring to feelings of decline in one's competence and productivity and one's lowered sense of self-efficacy, represents the self-evaluation component of burnout [23]. This finding might not confirm or reject any researcher's hypothesis because most of the researchers are more concerned with job satisfaction and they do not investigate duration as a factor of burnout unlike Wright and Bonnet (1997) who wanted to find the correlation between time and emotional exhaustion. Time in their work was not about duration (years) but as in hours.

Age and level of burnout

It was hypothesized that younger health workers (20-39 years) will experience more burnout than older health workers (40-60 years). The majority of the respondents were young with their ages ranging between 20 years to 39 years. The finding of the study indicated that there is an age barrier when it comes to burnout. Younger health workers experience burnout more than older health workers. This was because out of the 150 respondents of the study, 132 were younger with their ages ranging between 20-39 years, and 18 respondents have their ages ranging between 40-60 years. This indicates that the sample was not representative enough. This result confirms some previous studies done to find out the correlation between age and burnout. Studies like Courage and Williams (1987) research on gender, age, and ambiguity of workloads and the level of burnout among nurses. Their study reveals that age and gender have a great influence on emotional exhaustion and a study by Antoniou and his colleagues in 2000 emphatically concluded that age that is younger personnel experience more emotional exhaustion. Aside from emotional exhaustion, the reduced personal accomplishment was experienced by the young doctors with burnout symptoms. Nearly half of the respondents did not agree that they deal very effectively with the problems of their patients. To a certain extent, the complexity of the patient's problem negatively affected the younger health workers'

level of personal accomplishment. Finally, the respondents experienced less depersonalization based on the above statistic data. Although there were half of the total respondents feels run down and drained of physical or emotional energy, almost all the respondents thought that they care about what happens to some patients. These indicate that majority of young health workers' experience burnout.

Gender and level of burnout

The outcome of the result rejects the fact that there is a correlation between gender and level of burnout and also reject the idea that the nature of health service required intense or intimate contacts with people with various ailments or patients with problems that need medical intervention and because of this nature, it is often said that health personnel experience more burnout than other human service personnel. With this, it is often believed that health personnel feel emotional exhaustion which refers to feelings of being depleted of one's emotional resources because they feel run down and drained of physical or emotional energy when they work with people all day. Aside from the emotional exhaustion, it was also believed that they experience depersonalization which refers to a negative, cynical, or excessively detached response to other people at work, represents the interpersonal component of burnout and reduced personal accomplishment, referring to feelings of decline in one's competence and productivity and one's lowered sense of self-efficacy, represents the self-evaluation component of burnout [23]. It was hypothesized that female health workers will experience more burnout than male health workers and the result rejects that. The majority of the respondents were males and they were about 89 as against 61 females. This verdict confirms some of the preceding studies that were conducted in this field. Like the study conducted by Lingard and Francis (2006) failed to identify significant differences between gender and burnout in their study. Pines, Aronson, and Kafry (1981) also conducted a study on the gender correlation with burnout level and their study revealed that female social workers felt more environmental pressures, a greater level of burnout than male counterparts. This shows inconsistencies that exist when it comes to gender and burnout. These inconsistencies confirm what Shirom said in 1989 that burnout research has for the most part given only nominal attention to the issues related to gender but the only exception has been those studies that examined whether women were more susceptible to burnout than men, either concerning burnout in general or to one of its components. These studies do not offer consistent results. Maslach and Jackson (1985) concluded that gender as an individual characteristic was not a significant predictor of burnout. Others have reported that men scored higher on depersonalization [12] and that women scored higher on emotional exhaustion []. (Fitzgerald & Stark- Adamic, 1990).

Conclusion

The study established baseline data on the extent of how age, gender, and duration of service influence burnout among health workers. As burnout was closely related to age and experience as a more source of stress and burnout among health workers, the management and staff of a health institution must consider appropriate measures to alleviate job stress and burnout. Implementation and planning measures were aimed at minimizing the negative impacts of workload by examine complexity to different health workers fairly and minimizing the patient ratio. It would be impossible and impractical to eliminate

all sources of burnout as a certain amount of stress is essential to uphold our energy level. However, a good working environment with realistic and balancing goal setting will reduce job burnout and promote work engagement.

Implications of the study

The findings of this study have several implications for the management of health personnel in our hospitals. As the problem of work overload will be significantly positively correlated to the health workers' burnout if tested, the management must review and tackle their problem of work overload. One of the realistic solutions is to reduce the doctor-to-patient ratio by employing and training more health workers. Another possible solution is to review the service agreement standards and cap their numbers of caseloads according to their capability and length of experience even though in this work there is no significant difference among experienced and inexperienced health workers it does exist. Management is required to examine the complexity of the cases and deal out the complicated cases to different doctors fairly. However, management should create a work environment that reduces rather than produces burnout.

References

1. Abraham R. Organizational cynicism: Bases and consequences. *Genetic, Social, and General Psychology Monographs*. 2000; 126: 269-292.
2. Antoniou AG, Davidson MJ, Cooper CL, Occupational Stress, Job Satisfaction and Health State in Male and Female Junior Hospital Doctors in Greece. *J. Manag. Psychol*. 2000; 18: 592-621.
3. Bonett DG. The contribution of burnout to work performance. *Organizational Behavior*. 1997; 18: 491-499.
4. Brouwers A, Tomic W. A longitudinal study of teacher burnout and perceived self-efficacy in classroom management. *Teaching and Teacher Education*. 2000; 16: 239-253.
5. Chang E, Rand KL, Strunk DR. Optimism and risk for job burnout among working college students. *Personality and Individual Differences*. 2000; 29, 255-263.
6. Cherniss C. *Staff burnout: Job stress in the Human Services*. Beverly Hills, CA: Sage. 1980.
7. Cherniss, C. *Beyond burnout*. New York and London: Routledge. 1995.
8. Cordes CL, Dougherty TW. A review and an integration of research on job burnout. *Academy of Management Review*. 1993; 18: 621-656.
9. Courage MM, William DD. An approach to the study of burnout in professional careproviders in human service organization in *Burnout among social worker* by Gillespie D. New York: Haworth Press, 1987; 7-22.
10. Dean JW, Brandes P, Dharwadkar R. Organizational Cynicism. *Academy of Management Review*. 1998; 23: 341-352.
11. Freudenberger HJ. Staff burnout. *Journal of Social Issues*. 1977; 30; 159-164.
12. Greenglass ER, Burke RJ. A longitudinal examination of charness model of psychological burnout. *Social sience and medicine*. 1988; 40: 1357-1363.
13. Hansung K, Madeleine S. Burnout and Turnover Intention Among Social Workers: Effects of Role Stress, Job Autonomy and Social Support. *Administration in Social Work*. 2008; 32: 5-25.

14. Hobfoll SE. The psychology and philosophy of stress, culture, and community. New York: Plenum. 1998.
15. Hobfoll SE, Freedy A. Stress and burnout in work organizations. In RT Golembiewski (Ed.), Handbook of organization behavior. New York: Dekker. 1993; 41-61.
16. Hobfoll SE, Shirom A. Conservation of resources theory: Applications to stress and management in the workplace. In R. T. Golembiewski (Ed.), Handbook of organization behavior. New York: Dekker. 2000; 2nd Revised ed. 57-81.
17. Kop N, Euwema MC, Schaufeli WB. Burnout, job stress, and violent behavior amongst police officers. *Work & Stress*. 1999; 13: 326-340.
18. Leiter MP, Maslach C. Burnout and health. In A Baum TA, Revenson JE, Singer (Eds.), Handbook of Health Psychology. New Jersey: Erlbaum. 2001; 415-422.
19. Lingard H. Balancing study and paid work: The experiences of construction undergraduates in Australia. *Australian Journal of Construction Economics and Building*. 2003; 5: 41-47.
20. Lingard H, Francis V. Does work-family conflict mediate the relationship between job schedule demands and burnout in male construction professionals and managers? *Construction Management and Economics*. 2006; 23, 733-745.
21. Maslach C. *Burnout: The Cost of Caring*, Englewood Cliffs, New Jersey: Prentice Hall. 1982.
22. Maslach C, Jackson SE. The measurement of experienced burnout. *Journal of Occupational Behaviour*. 1985; 2: 99-113.
23. Maslach C. A multidimensional theory of burnout. In C. L. Cooper (Ed.), *Theories of organizational stress*. Oxford, U.K. : Oxford University Press. 1998; 68-85.
24. Maslach C, Jackson SE, Leiter MP. *Maslach Burnout Inventory Manual* (3rd ed.). Palo Alto, CA: Consulting Psychologists Press. 1996;
25. Maslach C, Schaufeli WB, Leiter MP. Job burnout. *Annual Review of Psychology*, 2001; 52: 397-422.
26. Parker PA, Kulik JA. Burnout self- and supervisor-related job performance, and absenteeism among nurses. *Journal of Behavioral Medicine*. 1995; 18: 581-599.
27. Pines A. Burnout. In L. Goldberger, Breznitz S (Eds.), *Handbook of stress*. New York, New York: The Free Press. 1980; 2nd Ed.; 386-403.
28. Pines A, Aronson E, Kafry D. *Burnout: From Tedium to Personal Growth*. New York: Free Press. 1981.
29. Pines A, Aronson E. *Career burnout: Causes and cures*. New York: Free Press. 1988.
30. Pines A. Burnout. In L. Goldberger, S. Breznitz (Eds.), *Handbook of stress*. New York, New York: The Free Press. 1993; 2nd Ed.; 386-403.
31. Pines A. *Couple burnout*. New York and London: Routledge. 1996.
32. Schaufeli WB, van Dierendonck D. *Utrechtse Burnout Schaal-UBOS: Handleiding (Utrecht Burnout Scale-UBOS: Test-manual)*. Lisse, Neth.: Swets & Zeitlinger. 1993.
33. Schaufeli WB, Enzmann D. *The burnout companion to study and practice: A critical analysis*. Washington DC: Taylor & Francis. 1998.
34. Shirom A. Burnout in work organizations. In C. L. Cooper & I. Robertson (Eds.), *International Review of Industrial and Organizational Psychology*. N.Y.: Wiley. 1989; 26-48.
35. Shirom A, Westman M, Shamai O, Carel RS. The effects of work overload and burnout on cholesterol and triglycerides levels: The moderating effects of emotional reactivity among male and female employees. *Journal of Occupational Health Psychology*. 1997; 2: 275-288.
36. Shirom A, Ezrachi J. On the discriminant validity of burnout, depression, and anxiety. Submitted for publication. 2001.
37. Winnubst J. Organizational structure, social support, and burnout. In W. B. Schaufeli, C. Maslach & T. Marek (Eds.), *Professional burnout: Recent developments in theory and research*. Washington, D.C: Taylor & Francis. 1993; 151-163.
38. Wright TA, Bonett DG. The role of pleasantness and activation-based well-being in performance prediction. *Journal of Occupational Health Psychology*. 1997; 2: 212-219.
39. Wright TA, Cropanzano R. Emotional exhaustion as a predictor of job performance and voluntary turnover. *Journal of Applied Psychology*. 1999; 83: 486-493.