

RELATIONSHIP BETWEEN BURNOUT AND PHYSICAL, PSYCHOLOGICAL AND COGNITIVE WELL-BEING AMONG NURSES

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Abstract

Nurses occupy a central role in the delivery of health care. In nursing profession, burnout is mainly due to the increase in workload and the lack of ability to prioritize the workload. There are three dimensions of burnout to be included which are emotional exhaustion, depersonalization and reduce personal accomplishment. During burnout, the nurse may express symptoms such as frustration, fatigue, hypertension, and depression. Unfortunately studies of the work experiences and satisfactions of nurses in several countries indicate that the satisfaction of nurses is modest. Many reports negative attitudes and diminished psychological and physical well-being, and several would like to leave the profession. The purpose of this study is to determine the relationship of burnout on physical, psychological and cognitive well-being among nurse in Health Clinic in Southern State of Malaysia. 140 questionnaires were returned for analysis using SPSS. Physical health was found to be positively correlated to burnout.

Keywords: Burnout; Nurse; Physical; Psychological; Cognitive well-being;

1.0 INTRODUCTION

Burnout has been described as “a stress syndrome in response to the job” that may affect to chronic emotional and stress at work [1]. The outcome of burnout can cause negatives consequence such as depression, irritability, helplessness, anxiety [2]. Other than emotionally affected, burnout may influenced one's personal life and health effects [1], reduced job commitment and job satisfaction [3]. In the research of a survey to 751 social workers, Siebert[4] found that about three-fourths from the respondents reported having trouble with burnout

during their careers. This high prevalence of burnout among social workers has been found across the broad range of practice fields.

Nurse by its very nature, is an occupation subjected to a high degree of stress. Every day nurse confronts stark suffering, grief, and death as few other people do. It is an important determinant the quality of healthcare well-being as nursing care is an integral component of patient care. The current reality of burnout in nursing careers that exceed the norms have paved way

for more research on what incorporates hospital nurses. The link between stress and burnout in nursing field, is a matter of common as nurses encounter stress, leading to the phenomenon of burnout.

As brief by a staff of Health Clinic in Johor in a short interview, based on the Annual Report 2013, there were 15 nurses who had quitted job last year due to unable to cope with the task given to them. During exit, they been asked for the reason to leave and responded that they cannot cope with the job. Nurses were reported to have high sick leave and absenteeism. Stress and burnout have far reaching effects both for nurses in their clinical practice and personal lives. Nurses have to frequently face the deal with stress in their working environment.

In view of nursing care is an integral component of patient care and an element of quality of healthcare services, the study is purposely conducted to understand the correlation between burnout with physical, psychological and cognitive well-being among nurses. This study is significant as exposure how burnout may affect physical, psychological and cognitive well-being. Since nurses deal with human life, the effect of burnout among them should not be taken lightly. It is hope that the study may contribute to provide some information to the hospital management to address the situation and prevent the occurrence. Though there are numerous studies regarding burnout been conducted to nursing area, this study has strengthened and validate the finding from the previous ones. In addition, this study is also important as additional evidence and scientific materials to other researchers who also wants to know things that is associates with burnout.

2.0 LITERATURE REVIEW

Theoretical Framework

Since past decades, clear empirical evidence has emerged regarding the prevalence of burnout in the nursing work profession. Aiken[5] and Van Bogaert[6] highlight the connection between care environments and adverse nurse job outcomes such as burnout and intention to leave. Burnout's impact on the individual is described as combined physical fatigue, cognitive weariness and emotional exhaustion [7] involving depersonalisation, emotional exhaustion and low personal accomplishment [1]. According to [8] in Belgian hospital nurses revealed that 41 per cent of the respondents felt they could not provide the care to which they aspired. In a study of Korean ICU nurses, only one-fifth felt that there were enough nurses to provide quality care; one-third were dissatisfied, half were burned out and a quarter planned to leave within the year [9].

Job performance is often examined in relation to stress and burnout associated with nursing practice. In [10], burnout is associated with poor self-rating as well as supervisor rating of performance, more sick leave, and more absence for mental health reasons. In Jordan, Abualrub[11] found that perceived social support from co-workers enhanced job performance and decreased job stress. Supportive management practices were crucial to achieve high nursing performance [12].

Dimension of burnout. Burnout is theorized to include three dimensions: emotional exhaustion, depersonalization or cynicism, and diminished personal accomplishment [1]. One of related field study has presented four domains that were associated with severe burnout in critical care nursing staff-personal characteristics, organizational factors, quality of working relations, and end-of-life related factors [13]. Most of the theorists agree that the process of burnout commences with emotional exhaustion, depersonalization and decreased personal accomplishment. Emotional exhaustion is described as the experience of stress, which approaches, or is above a person's comfortable limits while depersonalization is the development of a cynical and negative attitude towards clients, sometimes to the point of dehumanization. On the other hand, decreased personal accomplishment is defined as a negative outlook on one's performance at work.

Effects of burnout. In the burnout literature, there is substantial evidence on how burnout can affect the physical health of workforce. Burnout can negatively affect overall self-rated health status [14]. For example, in a national study of workers in Finland [15], it is found that physical illness was more common among workers with burnout, including musculoskeletal disorders among women and cardiovascular diseases among men. The study among Swedish health care workers [16], burnout was associated with lower self-rated health status, sleep disturbance, and neck and back pain.

In other research, Hallsten[17] has stated that sleep disturbances as a result of ruminating thoughts about work are more related to burnout compared to worn out. Furthermore, it has been suggested that sleep is a key factor for developing ill health as a response to stress [18]. An additional negative effect on the self-reported general health beyond the negative effect of exhaustion/disengagement might be present in the burnout group, which is line with the higher risk of long-term sickness absence among burnouts [17].

Job stress combined with the stress from everyday life can lead to detrimental physical and emotional outcomes for nurses and their families.

This awareness has been responsible for growing attention to employee well-being. There are two common components of well-being which are; the actual physical health and the mental or psychological, or emotional aspects [19]. Well-being comprises the various work or job-related satisfactions and life or non-work satisfaction enjoyed by individuals. Nurses' and other health care providers' experience of constant stress may affect their well-being and lead to disengagement, poor judgment, distress, and burnout. Stress and concomitant decreased well-being are contributing factors to organization inefficiency, high staff turnover, absenteeism because of sickness, decreased quality and quantity of care, increased costs of health care, and decreased job satisfaction [11].

Previous research by [20] which studied about burnout, work satisfactions and psychological well-being among nurses in Turkish hospitals also found that burnout has been shown to be related to higher levels of depression, chronic fatigue, psychosomatic symptoms, and a less satisfying home and personal life. On the other hand, their findings proven that burnout influenced work attitudes, psychological health, and perceptions of hospital functioning. In short, Leiter[21] concluded that relationship of burnout and work engagement in which, one's work are reflected from both individuals and their work environments.

Conceptual Framework

This research model is derived by considering the various models of burnout articulated by previous researchers. Burnout will be measured by the Maslach Burnout Inventory (MBI), the most widely used instrument in related field. Burnout is typically seen as a multi-dimensional construct [1]. In view of investigating the topic; burnout which consist of emotional exhaustion, depersonalization and reduced personal accomplishment represent independent variables, while physical health, psychological health and cognitive well-being are used as dependent variables.

This research would identify how dimension of burnout; emotional exhaustion, depersonalization and reduced personal accomplishment relate to physical, psychological and cognitive well-being.

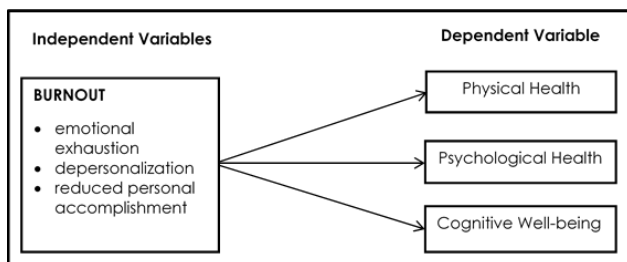


Fig. 1. Research Framework based on MBI.

3.0 METHODOLOGY

A quantitative research by using questionnaire survey is utilised to obtain the primary data from the respondent from two health clinics in southern area of Johor. Sekaran[22] suggested that a range of minimum sample size of 30 and a maximum of 500 is acceptable for a survey. In order to increase the robustness of the research, the total number of respondents is selected for the surveys which is 200. The unit of analysis for the research is nurses in the selected health clinics.

The questions are adopted from Maslach Burnout Inventory [23]. The questions are designed with 5-level of Likert summated rating scale to facilitate the survey process. In Likert scale, five-point was used in order to achieve accurate result by decreasing the risk of extreme value. In this study, the respondents were asked to rate on the determinant factors that were proposed in research model by using five points on Likert scale ranging from highly disagree, disagree, somewhat agree, agree, highly agree.

In order to identify and eliminate potential problems related to the research questionnaire, a pilot study was conducted to 10 respondents from the Human Resource and Administration Department of the Health Clinics. The result provides an adequate overview to test for the survey instrument of the research. Cronbach alpha is calculated to determine the internal consistency of the instruments in each variable. From the result shown in Table 1, each variables consisting of burnout, physical health, psychological health and cognitive well-being indicated the value of alpha above 0.7. These values determine the internal consistency of survey instrument.

Table 1. Cronbach's Alpha for pilot test.

Variables	Cronbach Alpha (N=10)
Burnout comprising - Emotional Exhaustion - Depersonalization - Reduced Personal Accomplishment	0.771
Physical Health	0.750
Psychological Health	0.717
Cognitive Well-being	0.771

As mentioned by [24], the Cronbach's alpha should exceed 0.70. Therefore, the study instrument for this research is acceptably reliable. Analysis of data utilised the descriptive and inference statistical methods by Statistical Package for Social Sciences (SPSS).

4.0 RESULTS AND DISCUSSION

In this study, 200 set of questionnaires were distributed to the nurse. However, only 140 set or 70% of questionnaires were completely answered and returned by respondents for analysis.

Reliability Test. Based on reliability result, the alpha value for all variables are above 0.7; burnout resulted 0.879, physical health resulted 0.765, psychological health resulted 0.793 and cognitive well-being with alpha value 0.919. For the alpha value above 0.8, burnout and cognitive well-being are considered high reliability, while physical and psychological health in acceptable ranking. Thus, all items in the questionnaire are reliable and do not need to be eliminated, further analysis can be proceeded,

Table 2. Cronbach's Alpha for the all variables.

Variables	Cronbach Alpha (N=140)
Burnout	0.879
Physical Health	0.765
Psychological Health	0.793
Cognitive Well-being	0.919

Level of physical, psychological and cognitive health. Descriptive analysis of means is used to determine the level of physical, psychological and cognitive health among nurses. The data is provided in Table 3. Physical health seems to be the highest level other than psychological and cognitive. However, based on the means obtained, these three variables have the mean value around the middle scale which is 2 to 3. Therefore, the level of mean is determined as moderate. This supports study in [25] that first stage of burnout is related to physical symptoms such as heart disease, migraines and hypertension.

Table 3. Mean for physical, psychological and cognitive health.

Variable	Mean	Standard Deviation	Level
Physical Health	3.17	1.20	Moderate
Psychological Health	2.81	0.87	Moderate
Cognitive Health	2.43	0.83	Moderate

Level of burnout comprising of emotional exhaustion, depersonalization and reduced personal accomplishment. Table 4 represents all dimension of burnout comprising of emotional exhaustion, depersonalization and reduced personal accomplishment. Reduced personal accomplishment is found to be the highest level in

burnout dimension. This supports research by Rowe[26]. Low personal accomplishment is the dimension of burnout where individuals feel dissatisfied with their accomplishments. As a consequence of this feeling, negative actions such as neglecting tasks, decrease in the quality of the service, not attending work without permission, extending the leave through medical report or other similar ways can be observed.

Table 4. Mean for burnout comprising of emotional exhaustion, depersonalization and reduced personal accomplishment.

Burnout Dimension	Mean	Standard Deviation	Level
Emotional Exhaustion	2.58	0.82	Moderate
Depersonalization	2.54	0.82	Moderate
Reduced Personal Accomplishment	3.33	0.89	Moderate

Relationship of burnout and physical health, burnout and psychological health, burnout and cognitive well-being. Pearson correlation is being used to analyse the association between two variables in this three sets. The summary of correlation coefficient values is shown in Table 5.

Physical health has the most significant relation amongst other two dimension to burnout in this survey of the health clinics of Southern State of Malaysia. The result is parallel the previous research [16] who have found that burnout was associated with lower self-rated health status, sleep disturbance, and neck and back pain among Swedish health care workers.

Psychological health is seen to have significant relation to burnout and this supports the previous researched by [20]. Their study found out that burnout has been shown to be related to higher levels of depression, chronic fatigue, psychosomatic symptoms, and a less satisfying home and personal life. In the field of psychology, [27] emphasized on positive psychological states which have been considered as factors of physical and mental health, and the relation exists between positive psychological states and its repercussions on the development of illness.

Cognitive health is also significance to burnout, having the lowest correlation coefficient values compared to others. The significant relation is comparable to [28]. According to them, cognitive well-being is developed through assessing one's interactions with their environment and other people welfare economics, and it resulting the cognitive concepts such as well-being, happiness, and satisfaction. While psychological health and cognitive health showed low level in mean analysis, Vahey[29] noting the close connection

between feelings of burnout and intentions to leave one's job.

Table 5. Summary of correlation coefficient values.

Burnout	Physical Health	Psychological Health	Cognitive Well-being
Correlation Coefficient	0.432	0.368	0.322

Effect of burnout (emotional exhaustion, depersonalization and reduced personal accomplishment) on physical, psychological and cognitive well-being. Linear regression analysis was used to determine the effect of burnout on physical, psychological and cognitive well-being from the survey data. In analysing the scale of the coefficients, the variable with the largest beta value has the greatest effect on the dependent variable.

Physical health was found to be the most influences by burnout. Consistent with [30], an additional negative effect on the self-reported general health beyond the negative effect of exhaustion or disengagement might be presented in the burnout, which is line with the higher risk of long-term sickness absence. Diminishing physical health can lead to lost workdays, diminished job effectiveness, permanent disabilities, and increased compensation for sick leave [31]. Honkonen[15] found that physical illness was more common among workers with burnout, including musculoskeletal disorders among women and cardiovascular diseases among men. This result also supported by [16] mentioned that burnout can negatively affect overall self-rated health status and can lead to a broad range of health problems.

Penson[32] who noted that the most dedicated and committed careers seemed prone to burnout. Burnout's impact on the individual is described as combined physical fatigue, cognitive fatigue and emotional exhaustion [7] involving depersonalisation, emotional exhaustion and low personal accomplishment [1]. Burnout also causes daily stress and work overload [33], poor control and conflicts at workplace [6].

Table 6. Linear Regression Analysis of Burnout that Effect Physical, Psychological and Cognitive Health.

	R	R ²	Adjusted R ²	β	F	Sig.
Physical Health	0.432 ^a	0.186	0.180	0.432	31.607	0.115
Psychological Health	0.368 ^a	0.135	0.129	0.368	21.598	0.000
Cognitive Well-being	0.322 ^a	0.104	0.098	0.322	16.018	0.039

Figure 2 indicates that the most affected variable by burnout in is physical health which has the highest regression coefficient at (0.432), followed psychological health (0.368), and cognitive health (0.322).

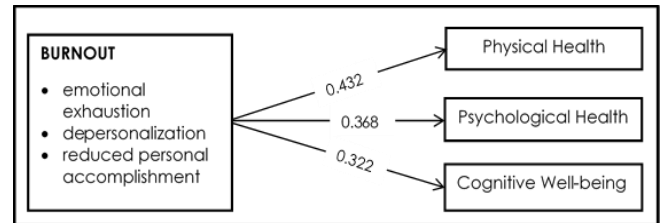


Fig. 2. Effect of burnout on physical, psychological and cognitive well-being.

4.0 CONCLUSION

Based on the study, there is a significant correlation existing between burnout and physical, psychological and cognitive well-being among nurses at Health Clinics in Southern State of Malaysia. Acting together, some of the measured indices also exerted significant predictive capacities, which indicate that there is an interaction among these factors. The physical health is most affected by burnout compared to psychological health and cognitive health. This study also has shown that variables can have different effects from the findings of the studies on physical, psychological and cognitive health in the literature.

In the light of the information gained from this study, it can be suggested that health clinics should investigate the professional burnout of the nurses, reveal the reasons for it and take the necessary precautions. As suggestion, the management may consider to provide reward and recognition as appreciation on nurses' commitment. Outdoor activities may also help these health care workers to detach themselves from working pressure.

Burnout is a novel and rapidly developing area of research. This study presents the first step toward the classification of specific of nurses' physical, psychological and cognitive health association with burnout. As recommendation for future research, it would also be useful to examine whether burnout is influenced by other variables which could include individual personality types, social functioning ability, values, clear instructions, job control or compensation among others.

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