

The Relationship between Coping Strategies and Burnout among Nurses at Pumwani Maternity Hospital

J. W. Muriithi^{1*}, P. W. Kariuki¹ and G. M. Wango¹

¹Department of Psychology, University of Nairobi, Kenya.

Authors' contributions

This work was carried out in collaboration among all authors. Authors JWM and PWK designed the study. Author JWM carried out the study and wrote the manuscript. Author GMW reviewed the manuscript. All authors read and approved the final manuscript.

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ABSTRACT

Aim: The current study evaluated the relationship between three coping strategies (problem-oriented, social support and avoidance coping strategies) and burnout among nurses working in Pumwani Maternity Hospital.

Methodology: A descriptive cross-sectional design was used in the study which was conducted during the period of August 2015 to December 2016. A total of 96 nurses from the target population of 128 nurses at Pumwani Maternity Hospital were included in the study. The sample was selected through non-probability sampling methods that included clustering, purposive and convenient sampling. Self-administered data collection instruments consisting of Maslach Burnout Inventory - Human Services Survey and a coping strategy indicator were used. Data acquired was processed using SPSS version 21, particularly utilizing descriptive and inferential statistics.

Results: Finding showed that majority of the respondents (88.6 %) were experiencing burnout. There was a moderate correlation ($R=0.239$) between burnout and coping strategies, which also revealed that most nurses adopt problem solving strategy. Although there was no significant difference in burnout levels between the three coping strategies, avoidance coping strategy was

*Corresponding author: Email: janemuriithi69@gmail.com;

found to be a significant predictor of burnout levels. Problem solving and social support were negatively related to burnout levels, while avoidance coping was positively related to burnout.
Conclusion: Majority of the nurses at Pumwani Maternity Hospital experience burnout. Problem solving and social support coping strategies were related to decrease in their burnout while avoidance coping increased the levels of burnout. There is need to implement effective coping strategies to reduce the incidence of burnout among nurses working in maternal health care facilities.

Keywords: Avoidance; burnout; coping strategies; nurses; problem solving; social support.

1. INTRODUCTION

Burnout that is related to the occupations has been identified as a serious issue of concern affecting many workers especially whose job is in relation with humans [1]. It was first recognized as a psychological problem among healthcare workers in the 1970s [2]. Burnout syndrome in health care workers has been described as a work-related syndrome that stems from an individual's perception of a significant discrepancy between effort (input) and reward (output) [3]. It is a psychological disorder caused by constant emotional and physical overload. According to Aksu and Temeloglu [4] burnout is more common in workers working with troubled or needy clients, like the nurses deal with. Nurses suffering from burnout experience depersonalization, low personal implementation of their job, emotional exhaustion and negative attitude to the patients [5].

Burnout among nurses may occur due to disparity between workers input and remuneration, emotional and physical intensity of patient care required, organizational issues, work-related exhaustion, stress, rotational work schedules, inadequate physical working conditions, unsafe working environment, inadequate resources, clients' personal problems, understaffing, and inadequate security among other causes [1,6]. Burnout is demonstrated in lack of employee job satisfaction, poor mental and physical health, ineffectiveness, reduced organizational commitment, lower work productivity, absenteeism, interpersonal conflicts [1]. Burnout levels can be predicted through increased rates of illness, substance abuse, anxiety, fatigue, depression, irritability and absconding [1].

Dealing with burnout involves the organizations and individual measures [7]. This study explored coping strategies utilized by nurses in dealing with burnout. Coping has been defined as changing thoughts and actions for managing the

specific extrinsic and/or intrinsic demands judged as exceeding the individual's own resource [8]. Coping strategies refer to the specific efforts that workers employ to master, tolerate and reduce stressful events [9]. These strategies are behaviors, thoughts and emotions that the worker uses to adjust to the changes that occur in the job environment. The behavioral or psychological responses are designed to change the nature of the stressor itself or how one thinks about it [8,10]. Effective coping strategies play a very crucial role in increasing job performance and mitigating burnout levels [11]. Coping has been placed into two categories: problem-focused coping and emotion-focused coping [12]. Problem-focused coping involve proactively changing the situation to alleviate the stress while emotion-focused coping involve management of the stressful emotions and reducing their impact. This is by changing the feelings and thoughts about the situation [12,13]. It is reported that workers use the two coping in the management of diverse aspects of the same situation [13,14]. However, problem-focused coping is a more adaptive strategy [14].

The coping style can either be active or passive coping. Active coping strategies are reactions designed to change the nature of the challenges or thoughts about them. On the other hand passive coping strategies are those that lead people into withdrawal or avoidance which prevent them from directly addressing the problem. A study in Indonesia by Fathi and Simamora [15] revealed that nurses use coping strategies and that they cope actively with stress due to self-inefficacy, but passively when the challenge was due to working environment problem, interpersonal and management conflicts as well as patient care. In a study on burnout and coping, Mooney [16] reported that coping strategies that seemed to be more effective in dealing with burnout among elementary teachers have been those that involved active coping techniques.

A study by Xiaofei et al., [17] on coping and burnout revealed that older nurses, in terms of their age and years of professional involvement, had more life experiences and higher tendencies of using active coping styles thereby experiencing less burnout. In their study it was shown that increasing the use of passive coping led to an increase in emotional exhaustion scores while active coping was negatively associated with emotional exhaustion and depersonalization but positively associated with professional efficacy [17]. Active coping can be a positive factor in reducing incidence of burnout because it decreases the negative impact of stressors by strengthening nurse's efficiency in a specific situation [17]. The current study evaluated the relationship between three coping strategies (problem-oriented, social support and avoidance coping strategies) and burnout among nurses working in Pumwani Maternity Hospital.

1.1 Problem-oriented Coping and Burnout

Problem-oriented coping is characterized by confronting the problem, planning for problem-solving and seeking social support. Coping oriented to problem focuses on dealing with the problem or stress situation. This coping strategy includes ways of managing and modifying the problem in such a way that less stress is experienced [7]. Such coping strategies include organizational skills, time management and seeking advice and discussing the issues [7]. This strategy aims at keeping control over the existent situation hence reducing stress levels. This coping strategy does not directly prevent the burnout but aims at decreasing the level of personal stress which in turn prevents burnout [7]. A study carried out by Liana et al., [10] among 484 nurses in Latvia revealed that the most used way of coping was planful problem-solving. This study suggested that nurses who used problem-oriented coping were shown to have higher mental health indicators, were able to successfully resist and overcome job stressors and displayed higher job satisfaction.

1.2 Social Support and Burnout

Social support may influence burnout and a negative relationship between burnout and social support has been reported by Lin et al., [18]. In their study, Lin et al., [18] reported that nurses who received support from friend had lower levels of depersonalization while those who

received support from their co-workers or in charges experienced lower levels of emotional exhaustion. A positive environment where colleagues support each other and the managers support their staff can be one way of reducing the incidence of burnout [19]. Younger nurses have higher tendencies of using social support as a coping strategy, which can be associated with having had less experience in work, life and also feelings of insecurity. Older nurses with increased years of experience are reported to experience less emotional exhaustion [18].

The use of religion as a source of social support to bring about emotional support and hope has been reported [20]. Several studies have reported that workers who use religion as coping strategy at work suffered less depression and anxiety [21,22,23] These studies emphasized the use of religious and spiritual beliefs as way of coping with challenges at work and in making nursing responsibilities more endurable. Of importance, there is need to acknowledge that religion and spiritual beliefs are more personal and as a coping strategy may only be applicable to those who subscribe to the said religion or spiritual beliefs.

1.3 Avoidance-oriented Coping and Burnout

The avoidance-oriented coping may involve person-oriented or task-oriented responses; where an individual faced with stressful situation may seek out other people engaging in social diversion or by engaging in another task to seek distraction. Shortage increases the workload for the maternity nurse thereby leading to exhaustion. The continuous exhaustion has effects on the family life. As a coping mechanism some of the nurses use fake excuses to get away from the work load [24]. The use of avoidance-oriented stress coping strategy is associated with psychological competence, self-image of the nurse, professionally significant behavior and personality traits [18]. It is likely that people working with other people such as health care workers utilize coping oriented to avoidance as they are not allowed resource control in the work place [25].

In the absence of effective coping strategies, burnout levels are likely to escalate among nurses and this can be detrimental to their well-being and health over time. There is limited research targeting coping strategies and burnout among nurses especially in Africa. In recognition

of the adverse effects of burnout on workers' well-being and health, this study endeavored to assess the coping strategies and their relationship to burnout among nurses working at Pumwani maternity Nairobi, Kenya. The understanding on the correlation between coping strategies and burnout may form basis for establishment of strategic intervention measures in mitigating burnout among nurses.

1.4 Conceptual Framework

The conceptual framework for this study, which examined burnout and coping strategies among nurses, is based on the theories on perception of stressors and coping by Lazarus and Folkman [25]. Transactional model of Stress theory has three components: Primary appraisal, secondary appraisal and coping efforts. The primary appraisal endeavours to pinpoint role of a stressor; the secondary appraisal assesses ability a person on stress to manage the effects of the stressor on him. The coping effort is the strategy that the stressed person uses to manage the stressful situation. Therefore appropriate for burnout prevention and formulation of intervention strategies among nurses. In this study transactional theory is reflected in the relation between the nurses' burnout and coping strategies. The theory entails primary appraisal which involves person's assessment of the significance of the situation as negative or positive, manageable, challenging or insignificant. Primary appraisal can be described as a subjective evaluation of potential risk. Secondary appraisal is about assessment of the situation controllability, coping resources and options. A failure to use a matching coping strategy to cope with increase in demands and lack of resources can lead to burnout. The theoretical models of burnout agree on that continuous discrepancy between what are expected and unconducive working conditions with dysfunction ways of coping lead to burnout [25,26].

2. METHODOLOGY

2.1 Research Design

This study adopted a descriptive cross-sectional design, to examine the relationship between burnout and coping strategies among nurses working at a national maternity hospital.

2.2 Study Area

The study particularly was carried out in Pumwani Maternity Hospital, a national referral maternity, located on the eastern side of Nairobi City in Kenya. The hospital also serves as a maternal child health facility to the local neighbouring community. It is the largest maternity hospital in Kenya and in the Sub-Saharan Africa. It is the third busiest maternity hospital in African continent. This maternity hospital was purposefully selected not only because it is the largest maternity facility in the country but also for being the only hospital that offers maternity services exclusively.

2.3 Target Population

Nurses who had worked in the hospital for at least 6 months prior to the study constituted the target population. Out of the 154 nurses working in this hospital, 26 were on leave during the study period. This gave an accessible population of 128 nurses whose ages ranged from 21 to 60 years. Both male and female nurses were included in the study.

2.4 Sampling Techniques and Sample Size Determination

A sampling frame comprised of a list of all service points in the hospital. Due to the size and distribution of the population, purposive and convenient sampling techniques were used to select the nurses from all the service points. Among the accessible nurses, those on part time/locum were excluded from this study.



Image 1. Conceptual framework: Adopted and modified from Lazarus and Folkman (1984)

A formula by Yamane [27] was used to determine the sample size where 'n' is the sample size, 'N' is the population size and 'e' is the level of precision.

Level of precision (sampling error) e= 5% (0.05)
 Confidence level (for social sciences) = 95%
 Degree of variability = 50 % (0.5)

$$n = \frac{N}{1 + N(e)^2}$$

$$n = \frac{128}{1 + 128(0.05)^2}$$

$$n = 96$$

2.5 Research Instruments

The instruments for the study included Maslach Burnout Inventory-Human Services Survey (MBI-HSS) [28,29], Coping Strategies Indicator [30] and a researcher developed questionnaire. The items were presented in the form of a self-administered questionnaire. The MBI-HSS has 22 items for health care professionals with a likert-type response format. Depersonalization (DP) has 5 items, while Emotional Exhaustion (EE) and Personal accomplishment (PA), have 9 and 8 items, respectively. In this study, the 22 items were considered as one dimensional. Burnout was considered a continuous variable and the respondents were considered to be experiencing low, moderate or high burnout levels. In this study, moderate and high levels indicated presence of burnout while low burnout was considered as absence of burnout. The instrument had good internal consistency with cordoba coefficients of 0.767. Construct validity of MBI-HSS with regard to its reliability, coefficients of internal consistency of the three subscales varied between 0.82 and 0.90 for EE, 48 and 79 for DP, and 0.57 for PA [28,31].

The coping strategies indicator [30] was a 33 item self-report measure that is based on ways of coping as proposed by Lazarus and Folkman [25]. It sought to measure three basic coping strategies: Problem solving, social support and avoidance strategies. Responses on each of the CSI 33-items were indicated by means of a three point scale: a lot (3), a little (2), or not at all (1). The three subscales each contain 11 items and subscale scores were calculated by summing responses to appropriate items (range 0 - 33). Higher scores indicated greater use of the

strategy. Nurses were asked to think of work related problem that occurred within the last 6 months and to consider the manner in which they had coped with it. Cronbach's alpha coefficients indicated adequate internal consistency for each of the subscales ranging from 0.86 to 0.98 for problem solving, 0.89 to 0.98 for seeking social support and from 0.77 to 0.96 for avoidance [32].

2.6 Procedure for Data Collection

This study was conducted in accordance with the guidelines of the Helsinki declaration on competent persons and University of Nairobi regulations regarding research with human participants and the management of personal data. To begin the process, a letter was sent to the matron in charge of Pumwani Maternity Hospital describing the purpose of the study and requesting for permission to access the nurses. This was also to secure the support and interest in participating in the study as well as to determine the number of nurses working in each of the section. Enough questionnaires for potential participants were hand delivered to each nursing officer in charge of every section.. To ensure anonymity, participants were informed that no personal information would be used and the results of the study were strictly for the purposes of the research with no financial gain. Participants were instructed to place their survey packets into an unmarked locked box that secured their anonymity. In order to maintain the anonymity of the participants, no other follow-up procedures were planned.

2.7 Data Analysis

The collected data were processed through SPSS (version 21) package. Descriptive and inferential statistics were utilized in data analysis. Linear regression was used to evaluate the relationship between coping strategies and burnout. Analysis of variance (ANOVA) was used in comparison of means of the coping strategies on burnout.

3. RESULTS AND DISCUSSION

3.1 Results

3.1.1 Response rate

In the study, 94 respondents representing 98 % response rate, were successfully reached and have fully participated. This response rate was considered significant enough and therefore

acceptable, as it surpassed the recommended minimum rate of 30 % of the sample size as recommended by Kothari [33].

3.1.2 Coping strategies

Coping is the changing cognitive and behavioral efforts developed for managing the specific extrinsic and/or intrinsic demands judged as exceeding or surpassing the individual's own resource. Active coping uses strategies such as problem solving and seeking for social support while passive coping a nurse may use avoidance of the problem or withdraw from colleagues. In this study the coping strategies included social support, problem solving and avoidance.

Results indicated that nurses who adopted problem solving coping strategy were the majority (Fig. 1). They were followed by those using social support while those using avoidance coping strategy were the minority (Fig. 1). This confirms that the most adopted coping strategy was problem solving.

On distribution of the data, social support and problem solving of coping strategies had negative coefficients of Skewness indicating that the distribution of the data is to the left (negatively skewed) but only avoidance attribute had a positive coefficients of Skewness indicating that the distribution of the data is to the right (positively skewed).

3.1.2.1 Social support

An environment where colleagues support each other and the managers' support their nursing staff can be one way of increasing coping on the work related challenges. Results indicated that majority of those who used social support talked to people about the situation as this made them

feel better. This was followed by those who accepted help from a friend or relative, sought reassurance from those that knew them best as well as those who talked about their fears and worries to a relative or friend (Table 1). Those who went to someone (friend or professional) to help them feel better and those who accepted sympathy and understanding from friends who had the same problem were the minority (Table 1). The results corresponded to approximately 2 on a Likert scale implying that the frequency of most of the nurses seeking social support is moderate.

On distribution of the data on social support; going to someone /friend or professional to help you feel better and accepting sympathy and understanding from friends who had the same problem were positively skewed while the other social support were negatively skewed.

3.1.2.2 Problem solving

Problem solving oriented coping is characterized by confronting the problem and planning for problem-solving. Coping oriented to problem solving focuses on dealing with the problem or stress situation. It was revealed that majority of the respondents reported to have weighed up their options carefully, thought about what needs to be done to straighten things up, tried to solve the problem and set some goals for themselves to deal with the situation (Fig. 2). Results indicated that nurses who rearranged things so their problem could be solved were the minority (Fig. 2). The results corresponded to approximately 3 on a Likert scale implying that nurses frequently used problem solving as a coping strategy. On distribution of the data problem solving had a negative coefficients of Skewness indicating that the distribution of the data is to the left (negatively skewed).

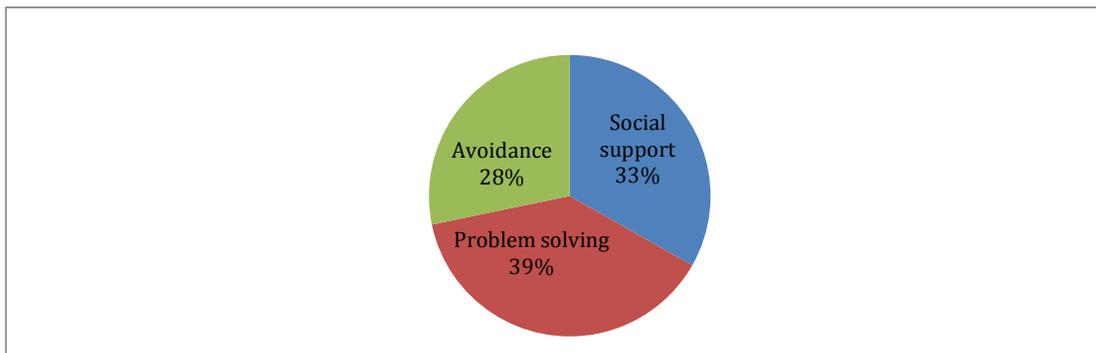


Fig. 1. Coping strategies adopted by the nurses in Pumwani Maternity Hospital

Table 1. Social support descriptive statistics

	Mean	Std. Deviation	Skewness
Accepted sympathy and understanding from someone	2.13	0.688	-0.169
Talked to people about the situation because talking about it made you feel better	2.46	0.634	-0.744
Talked about fears and worries to a relative or friend	2.27	0.624	-0.263
Told people about the situation because talking about it helped you come up with solutions	2.24	0.677	-0.332
Went to someone friend or professional to help you feel better	1.87	0.718	0.193
Went to a friend to help you feel better about the problem	2.12	0.731	-0.186
Went to a friend for advice about how to change the situation	2.24	0.71	-0.388
Accepted sympathy and understanding from friends who had the same problem	1.94	0.685	0.081
Accepted help from a friend or relative	2.31	0.675	-0.471
Sought reassurance from those who know you best	2.27	0.706	-0.446

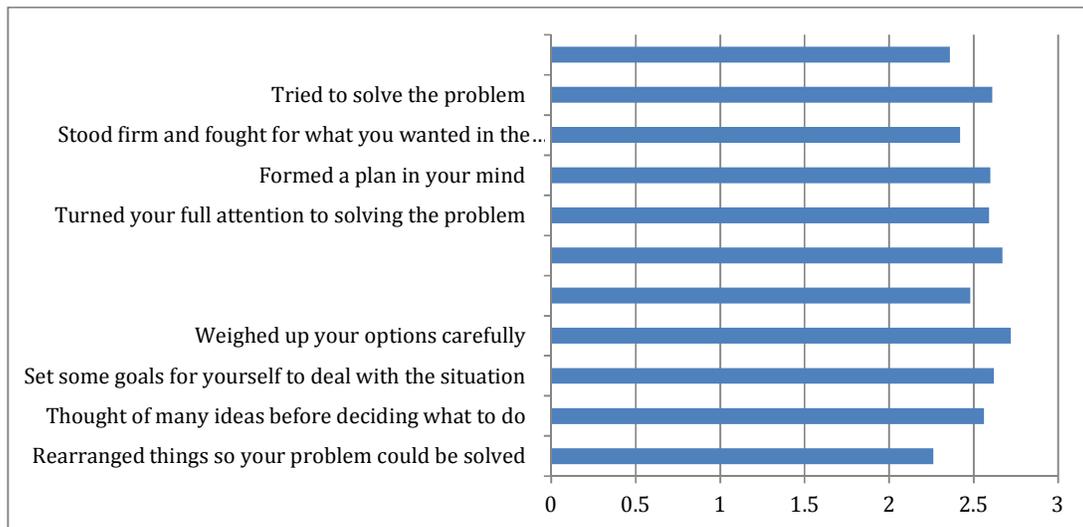


Fig. 2. Nurses' responses on problem solving

3.1.2.3 Avoidance

The avoidance coping strategy may involve person-oriented or task-oriented responses; where an individual faced with stressful situation may seek out other people engaging in social diversion or by engaging in another task to seek distraction. This study showed that majority of the nurses day dreamed about better times, did all they could to keep others from seeing how bad things really were, fantasized about things could have been different and tried to distract themselves from the problem (Fig. 3). Nurses who identified with characters in movies or novels were the minority (Fig. 3). Results on avoidance coping strategy corresponded to approximately 2 on a Likert scale implying that

the frequency of most of the nurses undertaking avoidance as a coping strategy was moderate. On distribution of the data on the use of avoidance coping strategy, some items were positively skewed while others were negatively skewed.

3.1.3 Burnout

Burnout is associated with work domain and can be equated to cumulative stress resulting from on-going work related demands. In this study nurses with high and moderate levels were considered to have burnout while those with low levels to be without burnout. The study revealed that majority of respondents (88.6 %) had experienced burnout. However, most of them experienced moderate burnout (Fig. 4).

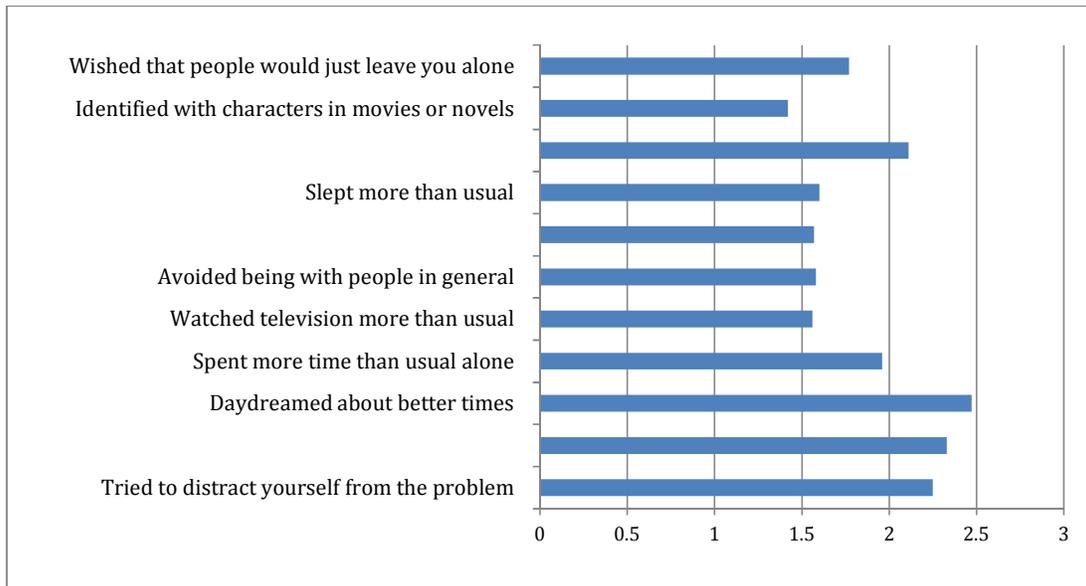


Fig. 3. Nurses' responses on avoidance coping strategy

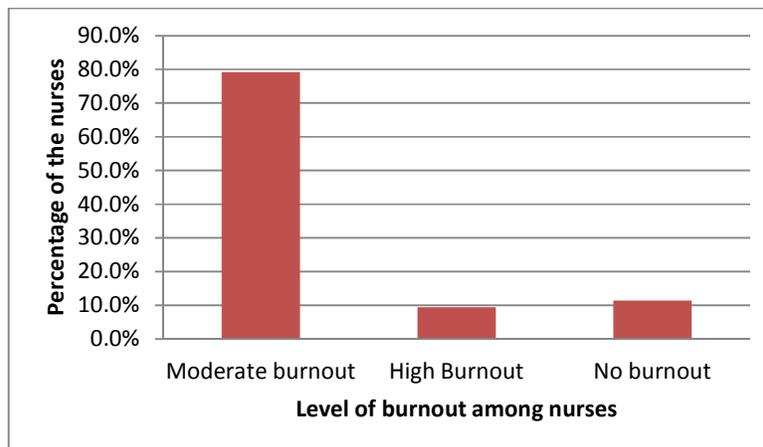


Fig. 4. Distribution of burnout levels among nurses in Pumwani Maternity Hospital

3.1.4 Relationship between coping strategies and burnout

This study further revealed a moderate correlation (R=0.239) between burnout levels and coping strategies (social support, problem solving and avoidance) (Table 2). Further it was

revealed that 5.7 % (Table 2) of the variations in the burnout levels can be explained by changes on coping strategies (social support, problem solving and avoidance) and 94.3% of variation in burnout levels can be explained by other factors that are not within the control of the research.

Table 2. Relationship between coping strategies and burnout levels among nurses working in Pumwani Maternity Hospital

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.239 ^a	0.057	0.026	0.316

a. Predictors: (Constant), Avoidance levels, Problem solving levels, Social support levels

Using the Standardized Coefficients, avoidance coping strategy was found to have the greatest influence on burnout levels ($\beta = 0.006$, $t = 0.062$, $p = 0.951$) (Table 3) and thus this coping strategy is a significant predictor of burnout levels. Problem solving strategy followed in terms of influence on burnout ($\beta = -0.089$, $t = -0.859$, $p = 0.393$) while social support had the least contribution to burnout levels ($\beta = -0.207$, $t = -1.974$, $p = 0.051$) (Table 3). However, no coping strategy was found to be statistically significant in influencing burnout levels.

Using the unstandardized coefficients, the relationship between coping strategies on burnout levels was evaluated. Social support and burnout levels had a negative regression coefficient ($\beta = -0.107$) indicating a negative relationship between social support and burnout levels. This means that for every increase in social support, there is a decrease in the burnout levels. The null hypothesis that social support has no significant influence on burnout is accepted ($p = 0.051$). Problem solving on burnout levels had a negative regression coefficient ($\beta = -0.047$) indicating a negative relationship between problem solving and burnout levels. This means that for every increase in problem solving, there is a decrease in the burnout levels. However, there was no significant relationship between problem solving on the burnout levels ($p = 0.393$) and hence the null hypothesis is accepted. Avoidance on

burnout levels had a positive regression coefficients ($\beta = 0.004$), indicating a positive relationship between avoidance and burnout levels. This means that for every increase in avoidance, there is an increase in the burnout levels. However, avoidance had no significant relationship with burnout ($p = 0.951$) and hence the null hypothesis is accepted.

Further, ANOVA analysis was carried out to evaluate whether differences in means of the coping strategies in regard to burnout were significantly different. It was revealed that there was no significant difference in the mean burnout levels between the different coping strategies at 95% confidence level ($p = 0.142$) (Table 4).

3.2 Discussion

The study examined the relationship between coping strategies and burnout among nurses working in Pumwani Maternity Hospital. This study revealed that majority of nurses (88.6 %) experience burnout. Comparative studies done earlier among clinical workers reported that nurses had higher burnout levels than other medical workers [34,35]. In their study in Taiwan, Chou et al., [36] similarly reported nurses to be the most burnt-out among health workers. Nurses' work exposes them to deaths daily, grieving patients and relatives may work for relatively long shifts, may lack necessary resources among other factors that may lead to

Table 3. Regression on the relationship between coping strategies and burnout levels among nurses working in Pumwani maternity hospital

Regression Coefficients	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error			
	Beta				
(Constant)	1.427	0.168		8.518	0
Social support levels	-0.107	0.054	-0.207	-1.974	0.051
Problem solving levels	-0.047	0.054	-0.089	-0.859	0.393
Avoidance levels	0.004	0.062	0.006	0.062	0.951

a. Dependent Variable: burnout

Table 4. ANOVA on the relationship between coping strategies and burnout levels among nurses working in Pumwani Maternity Hospital

ANOVA ^b						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	0.557	3	0.186	1.86	.142 ^a
	Residual	9.183	92	0.1		
	Total	9.74	95			

a. Predictors: (Constant), Avoidance levels, Problem solving levels, Social support levels

b. Dependent Variable: burnout

emotional and physical exhaustion leading to burn out [6]. The nature of the nurses' daily work may expose them to persistent frustrations and fatigue which could eventually lead to burnout [35]. Burnout among nurses has become a concern because of associated negative effects on their health which eventually affects service provision.

The current study assessed the relationship between coping strategies (problem solving, social support and avoidance) and burnout. This study confirmed that coping has direct influence on burnout. The results are congruent to those reported by several authors that coping has a direct consequence on burnout [37,38,39]. Coping strategies can be used to predict burnout among workers. Thus, burnout occurrence can be determined by how one copes and what coping strategy is used to cope with the challenges at work. A study by Gomes et al., [40] on prevalence of burnout and the coping strategies that predicted burnout in correctional officers showed that coping strategies predicted burnout. The present study showed that the coping strategy commonly used by the respondents was problem solving followed by social support and avoidance, respectively. Among the coping strategies, avoidance coping was found to be a significant predictor of burnout levels. It had a positive correlation with burnout. As avoidance increases burnout increases among the respondents.

This study indicated a negative correlation between active coping strategies, problem solving and social support, and burnout. This is congruent with results reported by Zhao and Ding [41] on Professors that focusing on problem solving and seeking social support reduces burnout. Problem solving strategy involves ways that concentrates on problem including management and modification of the problem in such a way that alleviates stress experience in individuals [25]. According to Fearon and Nicol [7], although problem solving strategy doesn't prevent burnout directly, this coping strategy decreases the level of personal stress which in turn prevents. Problem solving coping strategy involves an individual's attempt to deal with the perceived stress [8]. By attempting to solve a problem can help in eliminating the stressor. This coping strategy is considered effective as it enables people to alleviate stress as it occurs. According to Chao, [42] workers that utilize this coping strategy tend to be more likely to maintain their sense of well-being and are more

optimistic. García-Arroyo and Osca [38] postulated that the use of problem-solving coping strategy is related to lower levels of stress and consequently better psycho-physical health.

The current study showed that social support is negatively correlated with burnout. As social support diminishes, burnout increases. This finding is consistent the results reported by Pavelková and Bužgová [43] that health workers in a hospice care who received social support experienced less burnout. Similarly, Whitebird et al., [44] on hospital workers in Minnesota, reported that workers who engaged in social activities experienced less stress. Odonkor and Frimpong [35] also reported that healthcare workers in 12 facilities in Ghana prevented burnout mostly through social support. Fellow workers and family members are sources of all kinds of support including moral, emotional, financial, and physical support and hence enable workers to deal with stress and burnout [35]. Besides, they may provide emotional upliftment. It is therefore imperative that nurses should engage in social systems and activities as this would help them mitigate burnout experience.

Thus, active coping (problem solving and social support strategies) is a positive factor in combating burnout as it decreases the negative impact of stressors by strengthening nurse's efficiency in a specific situation [17]. On the other hand the current study showed a positive correlation between burnout and passive coping (avoidance coping strategy). The results are similar to those reported by Zhao and Ding [41] who showed a significant increase in burnout levels among professors who used avoidance as a coping strategy. Hence avoidance of active actions with regards to a problem resolution may lead to involve excessive emotional inclusion with a tendency to self-incrimination leading to increased burnout

4. CONCLUSIONS

Results of this study show that majority of nurses in Pumwani Maternity Hospital experience burnout. Burnout may negatively affect workers health as well their productivity. The ability to identify coping strategies is a crucial step in mitigation of burnout among nurses. In the current study problem solving and social support coping strategies were related to lower burnout levels while avoidance coping was associated with increased levels of burnout. Development of effective coping strategies can help nurses in

handling stressors associated with their work demands and environment. Nurses with a low level of burnout are more likely to be actively solving a problem situation as well as seeking social support. Thus, application of effective coping strategies can be therapeutic in dealing with burnout among nurses.

CONSENT AND ETHICAL APPROVAL

The study was carried out in line with the guidelines stated by the Helsinki declaration on competent persons. Ethical approval was sought from Kenyatta National Hospital - University of Nairobi research and ethics committee. Permission to conduct study was sought from National Commission for Science, Technology and Innovation (NACOSTI); County director of health (Nairobi City County). Permission to collect data was obtained from the Hospital Superintendent in charge and Matron in charge of Pumwani Maternity Hospital, as well as nursing officers in charge of various sections. Consent was sought through written requisition attached to the questionnaire. Respondents consent was sought and only those willing were enlisted in the study. Respondents who agreed to participate in this study signed a consent certificate. To ensure confidentiality, coding of participants was used instead of the participants' real names. Besides these basic research ethics requirements, the study upheld the highest ethical standards. A cover letter and a consent form accompanied each questionnaire explaining the purpose of the research. Information regarding voluntary participation and assurances of anonymity as well as instructions for completing the enclosed questionnaires were also indicated. In the consent form, it was indicated that participants could withdraw from the study at any time without repercussion

COMPETING INTERESTS

Authors have declared that no competing interests exist.

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