Burnout in Nurses at a Referral Hospital in Western Kenya

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Abstract
Prolonged occupational stress is associated with burnout. Nurses are especially vulnerable to burnout. However, the frequency and factors that promote burnout in Kenya Nurses have not been conclusively. 379 (198 female and 181 male) nurses working in a referral hospital in Western Kenya were recruited to participate in this study. Bio-demographic data including the age, gender, marital status, work experience and religion of the participants was obtained using a questionnaire. In addition, The Maslach Burnout Inventory (MBI) that examines the three domains of burnout: emotional exhaustion, depersonalization and reduced personal accomplishment were used to assess the frequency of burnout. In addition, the relative contribution of factors promoting burnout was also examined. Most of the respondents were youthful; that is within the 25-35 age bracket (46%, n=174) whereas only 4%, n=15 of the respondents were above 55 years. In addition, most of the nurses were veterans with more than 6 years working experience. Furthermore, respondents experienced high levels of emotional exhaustion and diminished personal accomplishment ranging 21-40%. In addition, respondents also experienced moderate levels of emotional exhaustion, depersonalization and diminished personal accomplishment (57-85%). Long working hours significantly contributed to burnout in female nurses compared to male nurses (46 vs. 24; P<0.05, for female vs. male nurses respectively. In addition, there were gender differences in factors promoting burnout that is: high motivation, low pay, work overload and lack of professional support. However, these differences were not statistically significant. In conclusion, nurses experienced moderate levels of burnout. A combination of overload and low pay is fueling burnout nurses.

Key Words: Burnout, Nurses, Maslach Burnout Inventory, Performance

Introduction
Burnout is a state of physical, emotional and mental exhaustion caused by a depletion of the ability to cope with stress. It occurs when one feels overwhelmed and unable to meet constant demands. As demand continues, one begins to lose the interest or motivation that led them to take up a certain role or duty in the first place (Fruedenberger, 1974). Typically burnout is related to stress and it is most frequently linked to three factors; emotional exhaustion, depersonalization related to the work environment and a sense of diminishing personal accomplishment (Maslach, 1996). Burnout results from cumulative effects of stress in a work
related environment and therefore can afflict every worker. However, vulnerability to the development of burnout is especially high in helping professionals such as nurses (Maslach and Jackson, 1996). For instance, an earlier study by Kokonya and colleagues, (2014) indicated that 95% of healthcare workers were afflicted by burnout. This high prevalence of burnout has serious human resource management implications since burnout is frequently associated with incapacitation, absenteeism, substance abuse and eventually decreased productivity (Schaufeli and Enzmann, 1998).

Factors associated with employee burnout:
Several factors promote job burnout, these include: environmental factors, individual factors and organizational factors. Organizational factors that can lead to job burnout are management style, inflexible rules of the job, lack of job security and few opportunities for promotion (World Health Organization, 1998). On the other hand, Maslach and Leiter (2005) identified two groups of factors which dominate the person before burnout. The first group called situational predictors which include six antecedents: (1) workload, (2) control, (3) award, (4) social network, (5) job fairness, and (6) values. The second group includes individual antecedents such as age, gender, marital status and experience. As stated earlier, Nurses are especially vulnerable to burnout based on the convergence of antecedent factors as enumerated by Maslach and Leiter (2005) above. Working with patients is considered to be one of the most important factors leading to burnout in nurses (Chou et al. 2014). Burnout and compassion fatigue is a problem with psychological, social and work performance implications. Caring for patients evokes powerful emotional responses such as a strong desire to provide the best care possible and constant pressure to deal with negative feelings elicited in the process of caring for patients who are undergoing physical and psychological pain. Health care workers are in constant pressure to conform to work ethics and standards. For these reasons, nurses provide a useful model to assess burnout and its effects on job performance. I hypothesize that nurses working in a busy referral hospital would be exposed to factors promoting burnout and consequently, these nurses would have high burnout levels.

Literature Review
Burnout is defined as an enduring, negative state connected with work which occurs in case of people that are generally healthy. The syndrome of burnout is marked with exhaustion that is accompanied with psychical and physical discomfort; the feeling of diminished activity effectiveness, driven down motivation, and dysfunctional attitudes and behaviors at work. This state develops progressively and arises from variances between expectations and reality of the profession. Burnout often has a character of self-powered mechanism owing to lack of effective strategies of coping with stress (Schaufeli and Enzmann, 1998). Burnout can touch the representatives of the professions that cannot cooperate with strong emotions connected with their work (Maslach et al, 1996). Also, vital statistics such as the age, the sex and the education level do not influence burnout and its consequences (Martin et al., 2012). The most vulnerable employees are the ones whose work requires constant emotional contact with other people and as such their work activity is emotionally heavy (Gillespie, 2001). Burnout has many
negative effects on organizations as well as on the individual. This is typically manifested as cynicism, job dissatisfaction, low organizational commitment, and high staff turnover (Ghorpade et al., 2007).

Burnout may arise due to situational and personal influences; such as, personality, over-commitment and setting of unrealistic job expectations (Beasley, Thompson, and Davidson, 2003; Pines and Aronson, 1988). In situations where the clients’ demands exceed the employee’s resources, staff apathy may arise, causing them to feel like they cannot do anything about it. On the other hand, organizational factors that may promote employee burnout are based upon the perception of the level of respect that employees receive from the organization in which they work (Ramarajan and Barsade, 2006). According to Grandey (2003), emotional exhaustion may be caused by the perceived need of employees to disguise their feelings of disrespect for their employer to their clients. The final reason for burnout stems from a slightly different concept called emotional labor. It refers to the process by which workers are expected to manage their feelings in accordance with organizationally defined rules and guidelines (Hochschild, 1993). The expenditure of emotional labor is especially critical in the human services profession, since staff have a high frequency of interaction with coworkers, community members and patrons; they need not only use physical labor, but also emotional labor. Therefore, this could easily cause staff to become emotionally exhausted.

In summary, burnout is a global concern and work-related stress has the potential to negatively affect the individual’s psychological and physical health, as well as an organization’s effectiveness. Therefore, it is recognized worldwide as a major challenge to workers’ health and the functioning of their organizations (Carod-Artal, and Vázquez-Cabrera, 2013). Health care workers are especially vulnerable to burnout. In Kenya for instance, a previous study reported the prevalence of burnout to be as high as 95%. Additional studies are required to confirm these alarming findings as well as to determine the factors that may contribute to these high levels of burnout in healthcare workers in Kenya.

Problem Statement
There is scant literature on burnout in Nurses working in referral hospitals in Kenya. The workload in a large referral hospital in the country inevitably places tremendous work pressure on the Nurses and it is anticipated that this constant workload may result in significant levels of burnout. However little is known about burnout among health-care workers in Kenya. Considering the aforementioned gaps in earlier studies, this study was conducted in a referral hospital in Western Kenya to examine the levels of burnout in Kenyan Nurses and the underlying factors that may be promoting this burnout.

Study Participants and Methods
The study was done at Moi Teaching and Referral Hospital (MTRH), located in the western region of Kenya with a catchment’s population of about 13 million people - which is about 40% of the Kenyan population. The hospital serves as a teaching hospital for Moi University and other medical training institutions around Eldoret Town. Nurses at MTRH are expected to put in a minimum of 8 hours in a working day with only 2 off duty days in a week. The hospital has
several units such as: Intensive care Unit, Maternity, Pediatrics, Theatre, Oncology, and Mortuary amongst others.

**Sampling**
Simple random sampling using the lottery technique was employed whereby the study population was assigned numbers and participants selected by chance. The sample size was calculated using the Fisher’s formula, a conservative estimate of 50% was assumed as the percentage with burnout (Fisher, 1954).

The approximate sample was computed as shown below:

\[
N = \frac{Z^2 \alpha/2 \, p \, (1-p)}{d^2}
\]

Where; \( n \) = Sample size

\[
Z^2/2 \text{ (2 tailed)} = 1.96
\]

\( d \) (Absolute precision) = 5%

\( P \) (Prevalence rate) = 50%

\[
\begin{align*}
n &= \frac{(1.96)^2 \times 0.5 \times (1-0.5)}{(0.05)^2} \\
&= 385
\end{align*}
\]

385 (202 female, 184 male) nurses were recruited to participate in this study. However, only 379 (198 female, 181 male) returned the questionnaires and were thus, were included in the final data analysis.
Study instruments
A Bio-demographic questionnaire was used to collect descriptive data on age, gender, educational level, marital status, religion and years of experience of the study participants. In addition, a Burnout questionnaire that was developed by Maslach and Jackson (1996) designed to assess burnout in human services occupations was used to evaluate the level of burnout and compassion fatigue in nurses. The Maslach Burnout Inventory (MBI) is designed to measure three domains of burnout: emotional exhaustion, depersonalization, and reduced personal accomplishment. There are 22 items which are subdivided into 3 subscales. The items are written in the form of statements about personal feelings or attitudes and are answered in terms of frequency with which the respondents experience these feelings on a 7 point fully anchored scale (ranging from 0, ‘never’ to 7, ‘everyday’). In order to assess the relative significance of the five factors known to trigger occupational stress and burnout, that is: (a) High motivation (b) low pay (c) work overload (d) lack of professional support (e) working long hours. Participants were asked to select which one of the five factors was the most stressful.

Study procedure
Participants were informed about the purpose of the study via the information meeting at their work stations. Questionnaires on demographic data were issued to the participants and filled immediately. MBI questionnaires covering areas on emotional exhaustion, depersonalization and perceptions on levels of accomplishments were issued in the morning and picked at lunch time for those on duty during the day and those on night duty were issued with questionnaires during their working hours. The voluntary nature of participation was emphasized and respondents were guaranteed confidentiality.

Data management and Analysis
The completed questionnaires were checked for completeness and coded accordingly. The data was then entered into a computer database designed in SPSS. Descriptive statistics included calculations of percentages and ranges. Differences between genders were tested by student t test. Statistical significance was declared at P<0.05. All statistical analysis was completed using the software package SPSS, Version 17.0 (SPSS, inc., Chicago, IL).

Results
Demographic Information
A total of 385 questionnaires were administered to the nurses at MTRH of which 379 respondents were obtained, achieving a response rate of 98%. The composition of these respondents was 198 and 181 for female and male respondents respectively (Table 1). Most of the respondents were youthful; that is within the 25-35 age bracket (46%, n=174) whereas only 4%, n=15 of the respondents were above 55 years (Table 1).
<table>
<thead>
<tr>
<th>Gender</th>
<th>Frequency</th>
<th>Percent (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>181</td>
<td>48</td>
</tr>
<tr>
<td>Female</td>
<td>198</td>
<td>52</td>
</tr>
<tr>
<td>Total</td>
<td>379</td>
<td>100</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Age (years)</th>
<th>Frequency</th>
<th>Percent (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>18-24</td>
<td>57</td>
<td>15</td>
</tr>
<tr>
<td>25-35</td>
<td>174</td>
<td>46</td>
</tr>
<tr>
<td>36-45</td>
<td>86</td>
<td>23</td>
</tr>
<tr>
<td>46-55</td>
<td>47</td>
<td>12</td>
</tr>
<tr>
<td>&gt;55</td>
<td>15</td>
<td>4</td>
</tr>
<tr>
<td>Total</td>
<td>379</td>
<td>100</td>
</tr>
</tbody>
</table>

Furthermore, majority of nurses (66 %, n = 250) held Diploma level qualification, with a minority holding graduate and postgraduate level qualifications (Figure 1). In addition, most of the respondents 46%, n=174 had worked in the organization for a period of 6-10 years, while only 2 %, n=8 had worked in the organization for a period exceeding 20 years. Thus, most of the nurses at MTRH were veterans with more than 6 years working experience (Figure 2).

Figure 1: Academic qualification levels of Nurses at MTRH.
77% (n = 292) of the respondents were married whereas 18% (n = 68) were single. A further 4% (n = 15) of the respondents were widowed and only 1% (n = 4) of the respondents were divorced. Moreover, 65% (n = 246) of the respondents were Protestants whereas 26% (n = 99) were Catholics (Figure 2).

Figure 2: Number of years the respondent had worked as Nurses at MTRH.

The factors promoting burnout in Nurses were also examined. Long working hours significantly contributed to burnout in female nurses compared to male nurses (46 vs. 24; P<0.05, for female vs. male nurses respectively. In addition, there were gender differences in factors promoting burnout; that is: high motivation, low pay, work overload and lack of professional support. However, these differences were not statistically significant (P>0.05) (Table 2).

Table 2: Factors promoting burnout in Nurses

<table>
<thead>
<tr>
<th>Factor</th>
<th>Females</th>
<th>%</th>
<th>Males</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>High Motivation</td>
<td>32</td>
<td>16</td>
<td>48</td>
<td>27</td>
</tr>
<tr>
<td>Low Pay</td>
<td>59</td>
<td>30</td>
<td>65</td>
<td>36</td>
</tr>
<tr>
<td>Work Overload</td>
<td>49</td>
<td>25</td>
<td>36</td>
<td>20</td>
</tr>
<tr>
<td>Lack of Professional support</td>
<td>12</td>
<td>6</td>
<td>8</td>
<td>4</td>
</tr>
<tr>
<td>Long Working hours</td>
<td>46</td>
<td>23</td>
<td>24</td>
<td>13</td>
</tr>
<tr>
<td></td>
<td><strong>198</strong></td>
<td><strong>100</strong></td>
<td><strong>181</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

MBI scores obtained on the subscales of emotional exhaustion and diminished personal accomplishment indicated high levels of burnout ranging from 21-40%. Moreover, low to moderate levels of depersonalization were also reported in 19-80% of the respondents while 1% experienced severe levels of depersonalization. Furthermore, most of the respondents experienced moderate to high levels of diminished personal accomplishment represented (40-57%) (Figure 3).
Discussion

Frequency of burnout in nurses

A previous study indicated that vital statistics such as; the age, sex and education levels do not influence burnout and its consequences (Martin et al., 2012). Nevertheless, the study sample comprised of a varied range of participants in terms of age, gender and educational levels to enable a representative assessment of burnout in nurses and thus minimize respondents’ bias. In this study MBI scores obtained on the subscales of emotional exhaustion and personal accomplishment ranged between moderate and severe levels. Nursing professionals are more vulnerable to burnout compared to other professionals since their work requires constant emotional contact with other human beings (Gillespie, 2001). The work environment of the Nurse is therefore expected to be a significant contributor of occupational stress and burnout. This is due to quantitative demands, lack of work pace control and working in shifts (Drafke and Kossen, 2002). Working for extended hours because of excessive work demands in limited time constitute what is referred to as quantitative demands (Drafke and Kossen, 2002). This supports earlier findings that more favorable work environments are associated with lower burnout, job dissatisfaction, and intent to leave across a number of sectors, including nursing (Aiken et al., 2008).
Factors promoting work place burnout in Nurses

In general, the findings indicate that the frequency of burnout amongst nurses ranged from low to moderate levels across the three domains that is; emotional exhaustion, depersonalization and diminished personal accomplishment (Figure 3). These values are slightly lower than those reported by Kokonya and colleagues (2014), who found that 95% of health workers were afflicted by burnout. This discrepancy in our findings may be attributable to the fact that the Kokonya study was carried out in a much larger referral hospital and hence the work environment of the health care workers in that study was different from the current one. Moreover, the earlier study included other health workers besides Nurses. Nevertheless, the moderate levels of burn out reported in this study indicate a need to address this challenge as it has significant negative implications on human resource performance of the nurse and consequently impacts negatively on the welfare of the patient.

Anecdotal reports indicate that the principal drivers of employee burnout, that is; high motivation, low pay, work overload, lack of professional support and long working hours are prevalent in the Nursing profession in Kenya. Low pay concomitant with work overload were the main drivers of burnout in both male and female Nurses. In addition, for male Nurses, high motivation was also associated with burnout. A previous study has demonstrated that high motivation is a predictor for occupational stress amongst nurses. The more motivated nurses were found to be more stressed compared to lowly motivated Nurses. These authors attribute this difference to the fact that highly motivated nurses are more engaged with their jobs which inevitably creates more stress compared to their lowly motivated colleagues (Mjinzu et al, 2015). Kenyan nurses suffer from occupational stress directly attributable to a mismatch between their work and their earnings. Therefore, it can be argued that this unfulfilled need is fueling the moderate levels of burnout in Kenyan Nurses. These findings are consistent with previous studies. For instance, (Moczydłowska, 2016) found that deprivation of employee needs who earn less compared to the workload results in significant levels of employee burnout.

Effects of burn out on employee performance

Burnout is a prolonged response to chronic emotional and interpersonal stressors on the job, and is defined by the three dimensions of exhaustion, cynicism, and inefficacy (Beheshtifar and Omidvar, 2013). The consequences of burnout to the employee include commitment mitigation, increase in absenteeism and turnover, productivity decrease, morale reduction, and decrease in human consideration (Cordes and Dougherty, 1993). Burnout does not only affect job satisfaction negatively, but also brings about low organizational commitment (Ashil and Rod, 2011). Previous researchers have found high levels of stress among individuals who have excessive work-loads, work for long or unpredictable hours, have too many responsibilities, work at a rapid pace, receive too many phone calls, deal directly with difficult people without sufficient relief and deal with constant crises. In addition, boring tedious jobs or jobs without variety are equally distressful (Beheshtifar and Omidvar, 2013). This typically defines the work environment of a Nurse in Kenyan referral hospital. These high levels of stress would be expected to result in significant burnout and concomitant decline in productivity (Mjinzu et al, 2015).
Moreover, job stress was found to be an important intervening factor for health care delivery because it could adversely affect employee’s health and wellbeing as well as worker burnout. Thus, leading to turnover of the profession and overloading of the remaining nurses which inevitable results in a vicious cycle that impacts on the service delivery (Chou, 2014). High levels of burnout (exhaustion) signify that workers possess insufficient resources to deal effectively with the demands of their jobs, leading to impaired job performance (Taris, 2006). Burnout clearly impacts on the mental health and wellbeing of nurses, which most likely compromising productivity, performance and the quality of patient care. Future studies are required to explore specific strategies for managing stress and improving job satisfaction amongst nurses and thus, reduce the impact of burnout in nurses, which would then minimize absenteeism and turnover. This could be achieved through evidence based policies aimed at creating better work environments where nurses feel more secure and have adequate resources to successfully perform their jobs (Khamisa et al, 2015). Several approaches may be utilized to cope with burnout. Strategies that focus on personal engagement, positive reinterpretation of emotions, support programs and engagement in other social activities such as, joining clubs and participating in games (Fares et al, 2016) may help reduce burnout in Nurses.

Conclusion
The study examined burnout in Nurses working at a referral in Western Kenya using the Maslach Burnout Inventory (MBI). In addition, the factors promoting burnout in Nurses were also explored. MBI scores indicated high levels of emotional exhaustion and diminished personal accomplishment ranging from 21-40%. High levels of motivation, high workload, low pay, lack of professional support and working for long hours contribute to this high level of burnout amongst Kenyan Nurses. It is recommended that several approaches aimed at mitigating the adverse impact of these factors needs to be explored to reduce burnout in Nurses. Several of these coping strategies such as effective communication, better professional engagements and active participation in social activities are viable options to reduce burnout in Nurses. In summary, the findings of the current study reveal moderate levels of burnout among nurses at a referral hospital in Western Kenya. Work overload and low pay act synergistically to fuel these moderate levels of burnout amongst Kenyan nurses. These levels of burnout have adverse impact on the quality of healthcare services delivered to the patient and therefore, interventions aimed at mitigating the levels of burnout in Kenyan nurses are indicated. Such interventions should aim at helping the Nurse cope with the demands of the profession.
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