



WJMER

World Journal of Medical Education and Research

An Official Publication of the Education and Research Division of Doctors Academy

Predictive Markers for Surgical Site Infection in Laparoscopic Appendectomy

Undergraduates or Under Stress: A Study from an Indian Medical School's Perspective

Association between Depression and Socio Demographic Factors among Nurses Working in Moi Teaching and Referral Hospital, Eldoret, Kenya

Development of Novel Strategies in Management and Prevention of Psoriatic Disease Exacerbation

The Significance of proANP and NT Pro-BNP Levels Measurement in Patients with Arterial Hypertension

Challenges Faced in Implementing SPICES Model at Moi University College of Health Sciences, Eldoret, Kenya

Successes and Limitations of Community-Based Education Service at Moi University School of Medicine, Eldoret, Kenya

Constructing the Human Face: Learning Anatomy Through Sculpture

**DOCTORS
ACADEMY**



BETTER EDUCATION. BETTER HEALTH.

ISSN 2052-1715



Association between Depression and Socio Demographic Factors among Nurses Working in Moi Teaching and Referral Hospital, Eldoret, Kenya

Nyamwata J, Kokonya D, Odera P, Sanga PK

Institution

Masinde Muliro University of Science and Technology, P.O Box 190-50100. Kakamega

WJMER, Vol 16: Issue 1, 2018

Abstract

Objectives: To determine the relationship between socio demographic factors and depression among nurses working at Moi Teaching and Referral Hospital.

Methods: A cross-sectional design was employed. Stratified sampling technique was used to select 281 participants from the population. A structured questionnaire was used to collect information on the socio-demographic characteristics of the nurses, Beck's Depression Inventory to assess the symptoms of depression among nurses and Interview Schedules with the heads of nursing departments on factors associated with depression among nurses. STATA version 13 was used to analyze data. Descriptive statistics was used to summarize the data. Bivariate and multivariate statistics was applied to examine relationships between dependent and independent variables. The findings were presented using tables and graphs. The study sought approval by MMUST Institutional Review Board and Institutional Research and Ethics committee of Moi Teaching and Referral Hospital, Moi University School of Medicine. Informed consent of participants was adhered to during the study.

Results: Gender showed a statistically significant relationship with $P < 0.000$, age $P < 0.015$, marital status $P < 0.007$ while religion showed an insignificant relationship with $P < 0.718$. Work-related factors had a strong relationship with the depression status, these included education level, department, shift, income and religion. Majority of these variables showed a statistically significant relationship, i.e. education level had a $P < 0.002$, department had a $P < 0.014$, shift had a $P < 0.013$, income $P < 0.008$, responsibility $P < 0.001$ while work experience showed an insignificant relationship evidenced by the $P < 0.553$.

Conclusion: On the basis of the study findings, the researcher recommends that the policy makers at MTRH should formulate policies that will help prevent depression among nurses and improve service delivery

Key Words

Depression; Nursing; Stressors; Adaptation

Corresponding Author:

Mr Joseph Kigen Katwa; E-mail: jackodunga@gmail.com

Introduction

Depression is a significant public health concern worldwide and has been ranked as one of the illnesses having the greatest burden for individuals, families, and society (WHO, 2002). The socio demographic factors of age, gender, marital status, education and religion have consistently been identified as important factors associated with depression. Previous research has found that age is one of the demographic characteristics that is associated with depression. Many people with depression also have symptoms of anxiety, a situation referred to as co-morbidity. There can be physical symptoms too, such as feeling constantly tired, sleeping problems, having no appetite or sex drive and complaining of various aches and pains and the severity of the symptoms varied (A. T Beck, 2013). At its mildest level, one could feel

persistently low in mood, while at its most severe depression could make one feel suicidal and that life was no longer worth living (ibid). Depression was not just the result of a chemical imbalance in the brain and it was not simply cured with medication. Depression was caused by a combination of biological, psychological and social factors.

Poor mental health among nurses not only hinders professional performance but also affects the quality of healthcare provided. Nurses are indispensable to the healthcare system and their well-being and work performance has a considerable effect on the quality of hospital healthcare. Nursing is invariably considered a stressful occupation within the healthcare system, and nurses experience a variety of occupational stressors

Being in the medical field, nurses are faced with heavier pressure and psychological stressors and medical practice. They are at a higher risk for depression as other professions in the same field (Ibrahim, Kelly, Adams, & Glazebrook, 2013). Nurses are likely to come up with occupational stress and the ambiguities of the profession, who most directly and frequently interact with patients and affect those patients by their behavior and attitudes. Therefore, their wellbeing cannot be taken lightly. Some studies have indicated that depression may decrease the function of nurses and disturbs the nurse-patient's relationship (Uras, Gennaro, Aparo, & Tabolli, 2012).

Depression among nurses has attracted great attention from hospital and society. There are limited studies on depression regarding prevalence and correlates among nurses in Kenya.

Data revealing specific socio-demographic factors associated with the manifestation of depressive symptoms among nurses may be useful in identifying the symptoms. Moreover, targeted interventions may be formed in order to assist in both early identification as well as address the specific characteristics.

Additionally, studies found that there was an association between stress and the physical wellbeing factors: feeling tired easily, getting nervous, poor sleep and chest tightness, loss of appetite, reduced or increased psychomotor speed and weight changes (Decker, 1997).

In Kenya, there is limited evidence relating to mental health problems among nurses. There are no reported studies that investigate the relationship between stress, anxiety and depression among nurses, and researchers have paid little attention toward factors associated with mental health problems. Therefore, the findings of this study could be used in nursing profession and counselling activities. Owing to a paucity of data, this study aimed to examine the relationship between depression and socio demographic characteristics.

Research Methodology

This study applied a cross-sectional research design. The design involved the collection of data at one point in time. Phenomena under study are captured during one period of data collection. This design is

appropriate for describing the status of phenomena or for describing relationships among phenomena at a fixed point in time. One can test the hypothesis, using cross-sectional data (Mugenda & Mugenda, 2003).

Cross-sectional data can most appropriately be used to infer time sequence under two circumstances; when there is evidence or logical reasoning indicating that one variable preceded the other and when a strong theoretical framework guides the analysis. Cross-sectional studies can also be used to infer about processes evolving over time. Cross-sectional studies are easy to do and are relatively economical (ibid).

The study was conducted at Moi Teaching and Referral Hospital which is located in Eldoret town, 310 kilometers Northwest of Nairobi. Nurses working at Moi Teaching and Referral Hospital constituted the study population. The number of nurses working in this hospital is 1050. These nurses work in various departments in the hospital. Both male and female nurses are employed by the hospital and they work on different shifts. The male nurses are 164 and females are 886.

Beck's Depression inventory (BDI-II) was used to collect data on the dependent variable. The Beck's Depression Inventory (BDI) is a 21-item; self-report rating inventory that measures characteristic attitudes and symptoms of depression (Aaron T Beck, 1967).

A score of 1-10 is considered normal, 11-16 is mild mood disturbance, 17-20 is borderline clinical depression, 21-30 is moderate depression, 31-40 is severe depression and over 40 is extreme depression. A persistent score of 17 or above indicates that one may require medical treatment. A structured questionnaire incorporating socio demographic was used to harvest data on study participants. Socio-demographic characteristics included age, gender, marital status, level of education and religion. The STATA statistical software was used to analyze the data. Descriptive statistics was used to summarize the data. Bivariate and multivariate statistics was applied to examine relationships between the independent and dependent variables. The findings were presented using tables.

Background characteristics	Total		Females		Males	
	N	%	n	%	N	%
Age (years)						
20-29 years	71	25.36%	42	22.11%	29	32.22%
30- 39years	143	51.07%	96	50.53%	47	52.22%
40 – 49years	45	16.07%	33	17.37%	12	13.33%
>50years	21	7.5%	19	10.00%	02	2.22%
Total	280	100%	190	100%	90	100%
Education						
Certificate	40	14.34%	27	14.21%	13	14.61%
Diploma	170	60.93%	112	58.95%	58	65.17%
Degree	64	22.94%	48	25.26%	16	17.98%
Masters	5	1.79%	3	1.58%	2	2.25%
Total	279	100%	190	100%	89	100%
Marital status						
Married	205	73.21%	140	73.68%	65	72.22%
Widowed	11	3.93%	11	5.79%	0	0%
Single	61	21.79%	36	18.95%	25	27.78%
Divorced/separated	3	1.07%	3	1.58%	0	0%
Total	280	100%	190	100%	90	100%

Table 1: Distribution of Nurses by their background characteristics.

Results

The distribution of respondents by age was displayed in Table 1. From the results, it was observed that the majority 143 (51.07%) of the respondents were aged 30-39 and 71 (25.36%) of the respondents were aged 20-29 years. Less than a quarter of the respondents, 45(16.07%) were aged 40-49 years while only 21(7.5%) of the respondents were aged above 50 years. This meant that the study was not biased in terms of age representation of its sample population that was key for this study. The findings further revealed that, more than half 170 (60.93%) of the respondents had diploma level

of education, slightly less than a quarter, 64(22.94%) of the respondents had attained degree level of education, 40(14.34%) of the respondent had attained certificate level of education while only 5(1.79%) had attained masters level.

Seven in ten 205 (73.68%) of the respondents were married, 11(3.93%) of the respondents were widowed, 61(21.79%) of the respondents were single while only 3(1.58%) of the respondents were divorced or separated. By gender there was no big difference in the proportion for those who are married, single and divorced.

Variable	Frequency	Depression levels (%)					
	(n)	Normal	Mild mood disturbance	Borderline	Moderate	Severe	Extreme
Gender							
Females	190	14	11	34	37	3	1
Males	90	69	16	10	6	0	0
Total	280			56			
			$\chi^2= 99.8421$	P = 0.000			
Age group							
20-29	71	6	12	23	58	1	0
30-39	143	10	14	30	43	1	8
40-49	46	63	24	7	4	2	0
>50	21	57	24	5	5	5	5
				66			
Total	281						
			$\chi^2= 78.3350$	P =0.015			
Religion							
Christian	271	32	13	26	27	2	1
Muslim	7	29	0	57	14	0	0
Atheist	3	33	0	0	67	0	0
Total	281			56			
			$\chi^2= 7.0770$	P =0.718			
Marital status							
Married	206	50	33	6	11	0	0
Widowed	11	9	9	36	36	9	0
Single	61	10	7	34	48	0	2
Divorced/ separated	3	0	0	0	33	33	33
Total	281			35			
			$\chi^2=56.8865$	P = 0.007			

Table 2: Depression levels of Respondents by socio-demographic characteristics.

Table 2 shows the prevalence of depression to be 56%. This implies that 5 in 10 of the respondents exhibited symptoms of depression. Otherwise there was significant relationship between gender and depression levels status ($P < 0.000$, $\chi^2 = 99.8421$). The results of the comparison of depression levels by age showed that the proportion of depression was decreasing by age but for the ages below 39 years of

age, the results showed a higher depression rate compared to the older ages. The overall prevalence of depression by age stood at 66%. The explanation for this was that most of the nurses' staff above 40 years were used to their work compared to the younger nurses. The differences among depression by age was statistically significant ($P < 0.015$, $\chi^2 = 78.3350$).

Table 2 also showed that there was no significant relationship between religion and depression ($p < 0.718$, $\chi^2 = 7.0770$). However, this study registered a high depression prevalence of 56%, attributable to more than 96% of the respondents being Christian and 2.5% being Muslim, while only 1.5% were atheist

A cross tabulation of marital status and the level of depression indicated that more of those who experienced symptoms for depression were widowed, single, divorced and separated, making marriage a protective factor against depression among nurses in Kenya. There was a statistically significant relationship between marital status and depression level ($p < 0.007$, $\chi^2 = 56.8865$).

Variables		Depression levels (%)					
	Freq (n)	Normal	Mild mood disturbance	Borderline	Moderate	Severe	Extreme
Educational level							
Certificate	40	5	3	28	63	3	0
Diploma	171	34	12	26	25	2	1
Degree	64	44	38	9	8	2	0
Masters	5	40	20	20	20	0	0
Total	280			51			
			$\chi^2 = 69.8226$	$P = 0.002$			

Table 3: Educational level and depression.

Table 3 shows that the prevalence of depression level in relation to the level of education in this study was at 51%. The study further showed that a higher level of depression was noted among lower levels of education at certificate and diploma levels. This study also showed a statistically significant relationship between the lower level of education and depression ($p < 0.002$, $\chi^2 = 69.8226$).

Discussion

Table 2 shows the prevalence of depression to be 56%. This implies that 5 in 10 of the respondents exhibited symptoms of depression. Otherwise there was significant relationship between gender and depression levels status ($P < 0.000$, $\chi^2 = 99.8421$). These findings were at variance with those of Maslach who revealed that since the Nightingale era, nursing had been seen as a predominantly women's work, and therefore, males who found themselves in the field went through a lot of stress (Maslach, Schaufeli, & Leiter, 2001). Further, Jinks & Bradley, (2004; Genua (2005); Grady *et al.*, (2008) also reported that when males chose a traditionally female occupation, they had a tendency of experiencing role conflict. Men were less satisfied at nursing than women (Lambert & Lambert, 2001;

Sochalski, 2002) and male nurses had greater turnover intentions than their female counterparts. However, a recent study by Vahedi, (2009), on depression among nurses at the universities of medical sciences affiliated hospitals, it was discovered that depression occurred in approximately 25% of women. The study also showed that there was significant relationship between sex and the level of depression, implying that women were more susceptible to depression than men.

The results of the comparison of depression levels by age showed that the proportion of depression was decreasing by age but for the ages below 39 years of age, the results showed a higher depression rate compared to the older ages. The overall prevalence of depression by age stood at 66%. The explanation for this was that most of the nurses' staff above 40 years were used to their work compared to the younger nurses. The differences among the diabetics by age was statistically significant ($P < 0.015$, $\chi^2 = 78.3350$).

The findings were concurrent with those of Mostafa, et al (2013) who found out that the highest

prevalence rate of probable clinical cases of anxiety (23%) was reported among the age group 20 to less than 30 years, while the highest prevalence level of probable clinical cases of depression (10.9%) was reported among the age group 30-40 years among the nurses.

Table 2 showed that there was no significant relationship between religion and depression ($p < 0.718$, $\chi^2 = 7.0770$). However, this study registered a high depression prevalence of 56%, attributable to more than 96% of the respondents being Christian and 2.5% being Muslim, while only 1.5% were atheist

A cross tabulation of marital status and the level of depression indicated that more of those who experienced symptoms for depression were widowed, single, divorced and separated, making marriage a protective factor against depression among nurses in Kenya. There was a statistical significant relationship between marital status and depression level ($p < 0.007$, $\chi^2 = 56.8865$). This was concurrent with the findings of Kaplan (2001) who documented that depression was observed more among the divorced and those lacking inter personal relationship. Moreover Asad (2011) revealed that single and employed women were more likely to develop depression than married employed women. It can be stated that in this regard that social support, including family relations diversely affected the stress rates and married nurses experienced depression considerably lower than the unmarried because they enjoyed higher level of support from their families

Table 3 shows that the prevalence of depression level in relation to the level of education in this study was at 51%. The study further showed that a higher level of depression was noted among lower levels of education at certificate and diploma levels. This study also showed a statistically significant relationship between the lower level of education and depression ($p < 0.002$, $\chi^2 = 69.8226$).

Conclusion and Recommendations

In conclusion, the study revealed that there was a strong relationship between socio-demographic factors and depression among nurses working at

Moi Teaching and Referral Hospital

In socio-demographic factors, gender, age and marital status of the respondents showed a strong statistical relationship between these factors and depression.

Basing on the study findings, the following recommendations were made:

1. Continuous mentorship to the young nurses' on best practices in handling their services.
2. The management should introduce Continuous Medical Education (CMEs) sessions to address the gaps identified in the long run this will be able to bring the young nurses up to speed with their work and improve performance.
3. Formulation of policies that will help prevent depression among nurses working at the hospital this will then improve service delivery and patients' wellbeing.

References:

1. Beck, A. T. (1967). Depression: Clinical, experimental, and theoretical aspects: University of Pennsylvania Press.
2. Beck, A. T. (2013). Depression: Causes and treatment. Philadelphia: University of Pennsylvania Press.
3. Decker, F. H. (1997). Occupational and nonoccupational factors in job satisfaction and psychological distress among nurses. *Research in Nursing & Health*, 20(5), 453-464.
4. Ibrahim, A. K., Kelly, S. J., Adams, C. E., & Glazebrook, C. (2013). A systematic review of studies of depression prevalence in university students. *Journal of psychiatric research*, 47(3), 391-400.
5. Maslach, C., Schaufeli, W. B., & Leiter, M. P. (2001). Job burnout. *Annual review of psychology*, 52(1), 397-422.
6. Mugenda, O., & Mugenda, J. (2003). Research methods. Qualitative and Quantitative Approaches.
7. Uras, C., Gennaro, R., Aparo, U., & Tabolli, S. (2012). Risk of anxiety and depression in nurses in Rome (Italy). *Igiene e sanita pubblica*, 68(4), 555-564.
8. WHO. (2002). The world health report 2002: reducing risks, promoting Mental Health: World Health Organization.

The World Journal of Medical Education & Research (WJMER) is the online publication of the Doctors Academy Group of Educational Establishments. It aims to promote academia and research amongst all members of the multi-disciplinary healthcare team including doctors, dentists, scientists, and students of these specialties from all parts of the world. The journal intends to encourage the healthy transfer of knowledge, opinions and expertise between those who have the benefit of cutting-edge technology and those who need to innovate within their resource constraints. It is our hope that this interaction will help develop medical knowledge & enhance the possibility of providing optimal clinical care in different settings all over the world.

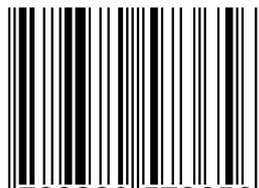


WJMER

World Journal of Medical Education and Research

An Official Publication of the Education and Research Division of Doctors Academy

ISBN 978-93-80573-65-6



9 789380 573656 >