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Mental Health and Wellbeing among Health Workers in Selected Health Facilitiesin Sokoto Metropolis, Sokoto State, Nigeria

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Abstract

Background: Mental health problems being a leading cause of non-permanent disability world-wide, hence the assessment of mental health and psychological well-being in the workplace is now recognised as a global research priority.

Aims: To assess the status of mental health,psychological wellbeing and associated factors among health workers in selected public health facilities in Sokoto metropolis.

Materials and Methods: A cross-sectional survey involving the use of self-administered structured questionnaire and two instruments (The Kessler-10 Psychological Distress Scale andPersonal Well-Being Index) was conducted among 384 health workers in selected public health facilities in Sokoto metropolis, Sokoto State, Nigeria. Chi-square was used to test for association with level of significant of $p<0.05$ using SPSS 20.

Results: More than half (54.2%) of the participants were within the psychological distress range (Kessler 10 score ≥16 and 38.8% had low satisfaction with their well-being. Some demographic and work-related variables like having no spouse, having chronic illness, longer hours of work, having no research role have been shown to be significantly associated with psychological distress and low satisfaction with wellbeing.

Conclusion: This study has revealed high prevalence of psychological distress and low satisfaction with well-being among the healthcare workers in Sokoto metropolis.Some demographic and work-related variables have been shown to be significantly associated with psychological distress and low satisfaction with wellbeing.There is the need for the management of the various hospitals toprovide stress management services for healthcare professionals with emphasis on prevention of psychological distress.

Introduction

The World Health Organization defines mental health as "a state of well-being in which the individual realizes his or her own abilities, can cope with the normal stresses of life, work productively and fruitfully, and is able to make contribution to his or her community" [1]. Psychological distress is widely used as an indicator of the mental health and well-being of population in public health [2]. It is defined as a state of emotional suffering characterized by symptoms of depression (e.g., loss of interest, feeling of sadness, hopelessness, lack of energy) and anxiety (e.g., restlessness, feeling tense, insomnia, headaches) [3].

Evidence from the World Health Organization suggests that nearly half the world's population is affected by mental illness with impact on their self-esteem, relationships and ability to function in everyday life [4].Mental and behavioral disorders account for approximately 12% of all diseases and injuries worldwide [5].

In addition, it is expected that by the year 2020, depression will emerge as one of the leading cause of disability globally [6]. Studies have shown that mental and emotional health problemshave an unstable social and economic coststhat place a heavy burden especially on the workplace [7-9]. In 2001, work-place absenteeism due to mental health problems accounted for about 7.1% of the total payroll [10]. A recent estimate attributed $4.5 billion of work-related productivity losses to depression [11].

In the United States, the estimate for national spending on depression alone is US$ 30-40 billion, with an estimated 200 million days lost from work each year [12,13]. A survey conducted among 638 nurses in Sweden using Goldberg 12-item General Health Questionnaire to assess mental health reported 23.0% of nurses had symptoms of psychological distress. High job demands, adverse psychosocial job characteristics, job strain and low social support at work were associated with psychological distress [14].

A cross-sectional study of nurses from one hospital in the province of Quebec, Canada, in 1990 revealed that 29.8% reported symptoms of high psychological distress and 21.8% reported a work inhibition syndrome [15]. A study indicated that physicians are at risk of developing common mental disorders with great impact on their quality of work [16]. Another cross-sectional study of 502 female nurses working in a public hospital at the city of Salvador, state of Bahia, Brazil reported prevalence of psychological distress of 33.3%, ranging from 20.0% among low ranked nurses to 36.4%, among high ranked nurses assistant [17] .

A study in Nigeria assessed the degree of burnout and psychological distress among nurses working in Nigerian tertiary health institution. High levels of burnout were identified in 42.9% of the respondents in the area of emotional exhaustion, 47.6% in the area of depersonalization and 53.8% in the area of reduced personal accomplishment, while 44.1% had psychological distress [18].

Lasebikan and Oyetunde (2012) [19] also evaluated the prevalence and associated factors of burnout among nurses in a Nigerian general hospital using GHQ-12 to determine the presence of psychiatric morbidity. They reported high level of burnout in 39.1% of the respondents in the area of Emotional Exhaustion (EE), 29.2% in the area of Depersonalization (D) and 40.0% in the area of Reduced Personal Accomplishment(RPA). Doctor/nurse conflict, inadequate nursing personnel, poor wages and too frequent night duties were predictors of distress.Despite the increasing recognition of the importance of mental health in the workplace, there is a paucity of data in developing countries including Nigeria.This study therefore assessed the status of mental health, psychological wellbeing and the associated factors among health workers in selected public health facilities in Sokoto metropolis, Sokoto State,North-western Nigeria.

Materials and Methods

Study Area

The three selected health care facilities where the study was carried out are Usmanu Danfodiyo University Teaching Hospital (UDUTH), Mariam Abacha Hospital and Yar'akija Primary Health Care located within Sokoto metropolis.

Study Population

The studypopulation comprised 384 health workers. These included doctors, nurses, pharmacists, physiotherapists, laboratory staff, imaging scientists, Community Health Officers (CHO), Community Health Extension Workers (CHEWs) in the three randomly selected health facility centers.Theinclusion criteriawere age 18 years and above,must be a clinical health worker of one of the 3 selected health facilities,written informed consent, must have worked for at least 6 months in the selected health facilities. Those with self-report history of mental illness were excluded. The study population size meets the minimum sample requirement for a study population greater than 10,000 based on the formula below [20].

Using the formulan=Z^2 pq d^2

n= The minimum sample size (when population is greater than 10,000)

z= The standard normal deviate, usually set at 1.96,which corresponds to the 95 percent confidence interval.

p=proportion in the target population estimated to have a particular characteristics (50%) [20].Thus, p=0.5.

q =1-p

Ethical Considerations

Ethical clearance for the study was granted by the Ethical and Scientific committee of the Usmanu Danfodiyo University Sokoto,Sokoto State, Nigeria.Informed consent of the participants to take part in the study was obtainedafter full explanation of the purpose of the study.

Study Design and Conduct

A cross-sectional descriptive Survey was conducted between April 2015-June 2015.Using stratified sampling technique, the health facilities were initially stratified into primary, secondary and tertiary health institutions. One health facility was selected from each category using simple random sampling. In order to select participants from the 3 selected health facilities, the number of different categories of health workers were compiled. In the first stage, the number to be selected from the primary, secondary and tertiary institution were initially determined using proportion-

al allocation of sample. In the second stage, the number of each category of staff were also determined using proportional allocation of sample.

Instruments of Data Collection

A self administered structured questionnaire designed by the researcher and two instruments (The Kessler-10 Psychological Distress Scale andPersonal Well-Being Index) were used for data collection in this study. The structured questionnaire comprises of questions on socio-demographic and other characteristics like number of patients seen per day, duration of work per day and presence or absence of chronic medical illness. For the purpose of this study, chronic medical illness was only limited to whether participants have ever been diagnosed to have hypertension or diabetes mellitus.The two instruments were not adapted and both have been previously used in Nigeria.

The Kessler-10 Psychological Distress Scale (K10)was developed by Kessler and others in 1992 as a screening scale for mental disorder and as a measure of nonspecificpsychological distress to assess well-being in a person.It is a 10-item questionnaire and takes about two minutes for the patient to complete.

The response to each item is given a weight [none ofthe time = 1, a little of the time = 2, some of the time = 3, most of the time = 4, all of the time = 5]. Scores range from 10 to 50.People who scored 16-21are likely to have a moderate psychological distress,people who scored 22-29 have high risk of mental disorder. People who scored over 30 arelikely to have a severe mental disorder [21]. For this study people that scored16 and above will be classified as having psychological distress [21].

The K10 has been used in the WHO World Mental Health (WMH) surveys. WMH includes surveys of nearly 250,000 people in 30 countries throughout the world including Nigeria [22]. Personal Well-Being Index (PWI) is an indicator of wellbeing. It is aneight items scale that assesses level of life satisfaction as a whole, as well as domains such as standard of living, achievement in life, personal health, personal relationship, personal safety, community-connectedness, and future security [23].

Participants were required to indicate their satisfaction on a scale ranging from 0 (completely dissatisfied) to 10 (completely satisfied). The total score ranges from 0-80.This instrument has been used previously in Nigeria. In this study, PWI score, less than 42 was classified as low satisfaction with wellbeing and score of 42 and above wasclassified as high satisfaction with wellbeing [24]. The subscales and total scale scores have high internal consistency, good test-retest reliability and high Cronbach's alpha of 0.89 [25].

Method Of Data Collectionand Pre-Test

In data collection,8 research assistants were employed. Apretest was carried out, which revealed that the questionnaires and instruments of data collection were easily understood.The questionnaires and the two afore mentioned instruments were given to theparticipants.

Data Analysis

The StatisticalPackage for Social Sciences (SPSS version 20 for windows)was used for analysis. Descriptive statistics were computed for all variables. In order to test for association between independent variables and the outcome variables in this study, cross-tabulation and bivariate analysis using chi square for categorical variables was used. The outcome variable were having or not having psychological distress and having low or high satisfaction with psychological well-being, while some of the independent variables were age, sex, marital status, number of patients seen per day etc, of the participants. The level of significance was set at $p<0.05$.

Results

All the staff approached agreed to participate in the study. A total of 384 questionnaires were distributed. Those that misplaced their questionnaires were given another one to make up for the sample size calculated. Thus 100 percent response rate was achieved.

Socio-Demographic and Work-Related Characteristics of the Participants

The mean age of the participants was 36.48±9.07 years. The histogram in (Figure 1) showed that majority of the participants were below the age of 45 years. Two hundred and seventeen (56.5%) were males and one hundred and sixty-seven (43.5%) were females. Majority (84.9%) of the paticipants were married.

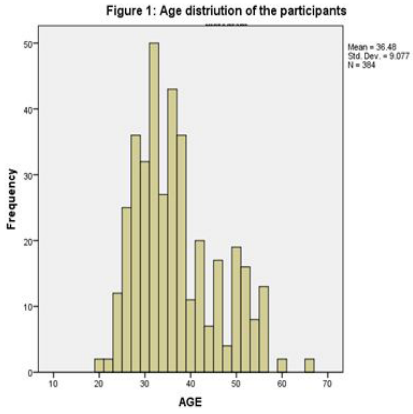

Figure 1: Age Distribution of the Participants.

Among the participants, 254 (66.1%) were on shift duty and 85.9% had supervisory role. Majority (77.9%) of the partipants were of the opinion that there were indequate staff in their various

departments. Also, 85.4% engage in research activities(Table 1).

Variable	Frequency (%)
Age(years)	
20-29	79(20.6)
30-39	189(49.2)
40-49	68(17.7)
50-59	46(12.0)
≥60	2(0.5)
Sex	
Male	217(56.5)
Female	167(43.5)
Marital Status	
Having spouse	323(84.9)
No spouse	61(15.9)
Parenthood	
Having a child	293(76.3)
No child	91(23.7)
Presence of chronic medical illness	
Yes	55(14.3)
No	329(85.7)
On shift duty	
No	129(33.6)
Yes	254(66.1)
Supervisory role	
No	54(14.1)
Yes	330(85.9)
Annual leave	
No	115 (29.9)
Yes	269(70.1)
Perception on adequacy of staff	
No	299(77.9)
Yes	85(22.1)
Appointment	
Permanent	288(75.0)
Temporary	96(25.0)
Research activities	
No	56(14.6)
Yes	328(85.4)
Total	384(100)

Table 1: Socio-Demographic and Work Related Characteristics of the Participants of the Paricipants (n=384)

Prevalence of Psychological Distress and Satisfaction with Psychological Well-Being Among the Participants

According to the findings, 54.2% of the participants were within the psychological distress range (Kessler 10 score ≥16). One hundred and forty-nine (38.8%) had low satisfaction with their well-being (Table 2).

Psychological distress scale(Kessler-10 Score)	Frequency (%)
10-15 (No distress)	176(45.8)
16-21 (Moderate distress)	130(33.9)
22-29 (High distress)	60(15.6)
30-50 (Very high distress)	18(4.7)
Satisfaction with Psychological wellbeing	
PWI Scale score <42	149(38.8)
(Low Satisfaction with Well-being)	
PWI Scale score ≥42	235(61.2)
(High Satisfaction with Well-being)	

Table 2: Prevalence of Psychological Distress and Psychological Well-Being among the Participants.

Relationship Between Psychological Distress and Socio-Demographic Characteristics of the Participants

Those below the age 45years were more likely (54.9%) to have psychological distresscompared to those above 45years of age (50.7%). Although, this difference was not statistically significant (x^2=0.40, p=.526). Marital status was significantly associated with psychological distress (x^2=4.80, p=.015). Most (65.6%) of those that have no spouse have psychological distress compared to 52% of those that have spouse. Having chronic illness was also significantly associated with psychological distress (x^2=17.25, p<001). Having a child or not, being a male or female were not significantly associated with psychological distress (Table 3).

Variable	No Psychological distress	Psychological distress	Statistics
Age(years)			
20-45	142(45.1)	173(54.9)	x^2=0.40, df=1, p= .526
>45	34(49.3)	35(50.7)	
Sex			x^2=0.09, df=1, p=.763
Male	98(45.2)	119(54.8)	
Female	78(46.7)	89(53.3)	
Marital status			

No spouse	21(34.4)	40(65.6)	x^2=4.80, df=1 p=.015
Having spouse	155(48.0)	168(52.0)	
Parenthood			
No child	42(46.2)	49(53.8)	x^2=0.005, df=1, p=.944
Have a child	134(45.7)	159(54.3)	
Chronic illness			
No	165(50.2)	164(49.8)	x^2=17.25, df=1, p<.001
Yes	11 (20.0)	44(80.0)	

Table 3: Relationship Between Psychological Distress and Socio-Demographic Characteristics of the Participants

Relationship Between Psychological Distress and Work-Related Characteristics of the Participants

Duration of hours of work per day was significantly associated with psychological distress (X^2=5.97,p=.015). One hundred and seven (56.6%) of those that work more than 8 hours per day had psychological distress compared to 38.5% that work for less than 8 hours per day. In addition, the number of patients seen per day also showed significant association with psychological distress (X^2=4.32, p=.038). Attending to more than 20 patients per day was more likely to increase the prevalence of psychological distress. Having no research responsibility also showed significant association with distress (X^2=4.95, p=.026).Other work-related characteristics of the participants in this study showed no significant association with psychological distress (Table 4).

Variable	No Psychologicaldistress	Psychological distress	Statistics
Hours of work per day			
≤8	32(61.5)	20(38.5)	X^2=5.97, df=1, p=.015
>8	144(43.4)	188(56.6)	
Hours of work per week			
≤48	94(48.2)	101(51.8)	X^2=.89, df=1, p=.343
>48	82(43.4)	107(56.6)	
Patients seen per day			
≤20	81(52.3)	74(47.7)	X^2=4.32, df=1, p=.038
>20	95(41.5)	134(58.5)	
Years of service			
≤7	94(46.5)	108(53.5)	X^2=0.084, df=1, p=.771
>7	82(45.1)	100(54.9)	
On shift duty			
Yes	112(44.1)	142(55.9)	X^2=1.898, df=1, p=.387
No	64(49.6)	65(50.4)	
Supervisory role			
Yes	176(45)	208(54.2)	X^2=0.43, df=1,p=.507
No	27(50.0)	27(50.0)	
Regular annual leave			
Yes	126(46.8)	143(53.2)	X^2=.367, df=1, p=.545
No	50(43.5)	65(56.5)	
Perceptionon staff capacity			
Adequate	139(46.5)	160(53.5)	X^2=0.23, df=1, p=.629
Not adequate	37(43.5)	48(56.5)	
Appointment			
Permanent	129(44.8)	159(55.2)	X^2=.503, df=1, p=.478
Temporary	47(49.0)	49(50.1)	
Haveresearch responsibility			
No	18(32.1)	38(67.9)	X^2=4.95, df=1, p=.026
Yes	158(48.2)	170(51.8)	

Table 4: Relationship Between Psychological Distress and Work-Related Characteristics of the Participants.

Relationship Between Age andWork-Related Characteristics of the Participants

Most (94.8%) of the participants whose age were less than 45years tend to work for more than 8 hours per day and they also work for more than 48 hours per week compare to those whose age were more than 45years. These relationships were statistically significant (Table 5).

Variables	Age (years)		statistics
	≤45	**>45**	
Hours of work per day			
≤8	260(79.8)	66(20.2)	x^2=7.590, df=1, p=.006
>8	55(94.8)	3(5.2)	
Hours of work per week			
≤48	149(77.6)	43(22.4)	x^2=.5106, df=1, p=.024
>48	166(86.5)	26(13.5)	
Numb of patients seen per			
≤20	188(82.8)	39(17.2)	x^2=.234, df=1, p=.629
>20	127(80.9)	30(19.1)	

Table 5: Relationship Between Age and Other Factors Among the Participants.

Relationship Between Psychological Well Being and Socio-Demographic Characteristics of the Participants

Only chronic illness was significantly associated with low satisfaction with psychological well-bieng (X2=10.15, p=.001).

Among those with chronic illness, 58.2% had low satisfaction with their well-being and 35.6% of those without chronic illness had low satisfaction with their well-being. The age, gender, marital status,parenthood of the participants were not significantly associated with satisfaction with their well-being (Table 6).

Variable	Low satisfactionWith Well-being	High satisfaction with Well-being	Statistics
Age(years)			
20-45	118(37.5)	197(62.5)	X^2=1.329, df=1, p=.249
>45	31(44.9)	38(55.1)	
Sex			
Male	87 (40.1)	130(59.9)	X^2=.350, df=1, p=.554
Female	62(37.1)	105(62.9)	
Marital status			
Having spouse	128(39.6)	195(60.4)	X^2=.585, df=1, p=.477
No spouse	21(34.4)	40(65.6)	
Parenthood			
Have a child	108(36.9)	185(63.1)	X^2=1.96, df=1, p=.161
No child	41(45.1)	50(54.9)	
Chronic illness			
Yes	32(58.2)	23(41.8)	X^2=10.15, df=1, p=0.001
No	117(35.6)	212(64.4)	

Table 6: Relationship Between Psychological Well Being and Socio-Demographic Characteristics of the Participants.

Relationship Between Psychological Well Being and Work-Related Characteristics of the Participants

There was statistically significant association between the psychological well-being and hours of work per day, 40.7% of those that work more than 8 hours per day have low satisfaction with well-being, while 26.9% of those that work less than 8 hours per day had low satisfaction with their psychological well-being(X^2=3.574, p=.039). Psychological well-being showed significant association with duration of hours of work per week. Those that work for more than 48 hours in a week were more likely to have low satisfaction with their psychological well-being (X^2=4.99,p=0.025). Psychological well-beingshowed statistically significant association with research activity. Having no research activity was significantly associated with low satisfaction with their psychological well-being (X^2=7.56,p=.007).(Table 7).

Variable	Satisfaction with Well-being		Statistics
	Low	High	
Hours of work per Day			
≤8	14(26.9)	38(73.1)	X^2=3.574, df=1, p=.039
>8	135(40.7)	197(59.3)	
Hours of work per Week			
≤48	65(33.3)	130(66.7)	X^2=4.99, df=1, p=0.025
>48	84(44.4)	105(55.6)	
Patients seen per day			
≤20	50(32.3)	105(67.7)	X^2=4.68, df=1, p=0.30
>20	99(43.2)	130 (56.8)	
Years of service			
≤7	83(41.1)	119(58.9)	X^2=.93, df=1, p=.333
>7	66(36.3)	116(63.7)	
On shift duty			
Yes	47(36.4)	82(63.6)	X^2=1.981, df=1, p=.371
No	101(39.8)	153(60.2)	
Under supervision			
Yes	13(46.4)	15(53.6)	X^2=0.740, df=1, p=.390
No	136(38.2)	220(61.8)	
Regular annual leave			
Yes	48(41.7)	67(58.3)	
No	101(37.5)	168(62.5)	
Perception on staff capacity			
Adequate	115(38.5)	184(61.5)	X^2=0.066, df=1, p=.797
Not adequate	34(40.0)	51(60.0)	
Appointment			
Permanent	111(38.5)	177(61.5)	X^2=0.033, df=1, p=.856
Temporary	38(39.6)	58(60.4)	
Have research activity			
Yes	118(36)	210(64.0)	X^2=7.56, df=1, p=.007
No	31(55.4)	25(44.6)	

Table 7: Relationship Between Psychological Well Being and Work-Related Characteristics of the Participants.

Discussion

Mental health and wellbeing of health workers has significant impact on their work. Our study showed that more than halfof the health workers have psychological distress and 38.8% have low satisfaction with their well-being.

These similar findings were reported by [26] where they reported that 50% of physicians and 35% of nurses surveyed in their study had severe psychological distress.The high prevalence

of psychological distress and low satisfaction with well-being noticed among the health care workers in this study also corroborates that of [27] who reported low satisfaction with psychological well-being among nurses. The prevalence from other studies were slightly higher than what was reported in this study[28,29].One possible reason is that the nature of their job involve too much of time, energy and effort over a long period of time, without recovering physically or emotionally [30,31].

Another reason could be attributed to the continous exposure to specific stressors related to high emotional involvement (e.g., continuous contact with patients' suffering and death), combined with other stressors derived from the organization of the work (e.g., work overload) and personal factors[32,33]. The high levels of psychological distress and low satisfaction with well-being observed among these health care workers invariably can affect their job satisfaction, organizational commitment and intention to quit [34], as well as work to family and family to work conflict [35].

This sometimes manifest in both physical and behavioural symptoms of stress, such as depression, anxiety, irritability, headache and insomnia, which have been reported by many authors in Nigeria and other parts of the world [36-38]. Health care workers, who are below the age of 45 years were more likely to experience psychological distress than those above the age of 45 years. This pattern of finding was equally reported by [39]. This may be because the younger healthcare workers might not have acquainted themselves with the demand of the health careprofession and have not developed enough psychological resilience to cope with the many challenges associated with their job, unlike the older healthcare workers.This is contrary to previous reports [40,41]. Kessler et al. (2010) [22] in their National Comorbidity Survey in the United States, found oldage to be a protective factor for all psychiatric diagnoses.

This may be due to the possibility that the younger healthcare workers in our study might have life stressors due to adjustment to the workenvironment duringthe first few years and increased economicburden compared with older health workers. There was high prevalence of psychological disress among unmarriedhealthcare workers than those who are married. This contradicts the finding of other study that reported increased mental distress among marriedpeople compared to those that were unmarried [40].

However, [41] reported that marital disruption was associated with increasedmental disorder.Unmarried healthcare workers may experience higher levels of distress than the married ones, apparently, due to the fact that they are younger and may be assigned more work than their elderly and senior counterparts. Moreover married healthcare workers (females) usually take maternity leave which will give them opportunity to rest in their homes and recover from the stress associated with the working environment. This study also revealed that those with chronic illness were more likely to have psychological distress and low satisfaction with their well-being to those without chronic illness.

According to [42] respondents who rate their overall health as very good orexcellent were less likely to experience high psychologicaldistress. Other studies have shown clear links between chronicillness and poor mental health [43,44]. Those who work for longer hours per day and cumulatively in a week were more likely to have psychological distress and low satisfaction with their well-being .The effect of the working hours has been reviewed by[44] who carefully distinguished thisvariable both from shift work and work overload; 10 of11 studies revealed an adverse effect of long hours of workon mental health.

Attending to high number of patients per day was also associated with psychological distress.This is not surprising because attending to greater number of patients in a day is mentally and physically challenging. Most of the previous studies have not considered this factor and its relationship with psychological distress,thus it was difficult to compare the findings of this study with previous studies. The finding of high prevalence of psychological distress among health care workers without research role clearly shows that career development and continuous education serve as a strong protective factor against psychological distress and low satisfaction with well-being.

Limitations of this Study

The cross-sectionalstudy design precludes delineation of the temporal relationbetween correlates and psychological distress. Secondly, psychological distress was based on self-report and thus, is subject to nonsystematicerrors in recall and systematic nondisclosure. The study was limited to the 3 selected health facilities with small sample size, findings from this study may not be generalized to healthcare workers in other general hospitals in the State. A major strength of this study is that this is the first study to the authors best of knowledge to have assessed mental health and well-being among health care workers in North-western Nigeria.

Conclusion

This study has revealed high prevalence of psychological distress and low satisfaction with well-being among the healthcare workers in Sokoto metropolis. Some demographic and work-related variables have been shown to be significantly associated with psychological distress and low satisfaction with wellbeing. There is a need for staff to undergo mental health assessment to identify those with high risk of mental health problems and to identify those that has mental health problem prior to being employed.The management should also take measure to address the psychosocial needs of the staff as an effort to promote positive mental health among the health workers.

References

1. World Health Report (2012) Mental Health: New Understanding, New Hope.
2. Anderson P, Jané-llopisE (2010) Mental health and global well-being. Oxford Journals Medicine &Health Promotion International 26: 147-155.
3. Mirowsky J, Ross CE (2002)Selecting outcomes for the sociology of-mental health: Issues of measurement and dimensionality.Journal of Health and Social Behavior 43:152-170.
4. Storrie K, Ahern K, Tuckett A (2010) A systematic review: students with mental health problems-a growing problem. International journal of nursing practice 16: 1-6.
5. World Health Report 2002: Reducing risks, promoting healthy life2002, Geneva.
6. WHO. 1996. See Ad Hoc Committee on Health Research.
7. Dewa CS, Lin E(2000)Chronic Physical illness, Psychiatric disorder and disabilities in the workplace. Social Science and Medicine 51: 41-50.
8. Lim D, Sanderson K, Andrews G (2000) Loss Productivity among Full-Time Workers with Mental Disorders. Journal of Mental Health Policy and Economics 3: 139-46.
9. Perez E, Wilkerson B (1998) Mindsets Oakwood, Ontario: Homewood Centre for Organizational Health at Riverslea.
10. Watson Wyatt Worldwide (2000) Staying at Work 2000/2001-The Dollars and Sense of Effective Disability Management. Catalogue No. W-377. Vancouver: Watson Wyatt Worldwide.
11. Stephens T, Joubert N (2001) The Economic Burden of Mental Health Problem in Canada. Chronic diseases in Canada 22: 18-23.
12. Conti DJ, Burton WH (1994)The economic impact of depression in a workplace. Journal of Occupational Medicine 36:983-988.
13. D/ART National Worksite Program(1995)Managing the impact of depression in the workplace: an integrated approach. Washington BusinessGroup on Health.
14. Vilija M, Palmira L, Romualdas M (2009) Psychosocial job characteristics,social support, and sense of coherence as determinants of mental health among nurses. Medicina (Kaunas) 45: 910-917.
15. Préville M, Beauchemin J, Potvin L (1991) Study of characteristicsassociated to stress among nurses. Montreal, Quebec, Canada: Maisonneuve-Rosemont Hospital, Department of Community Health.
16. Landrigan CP, Rothschild JM, Cronin JW, Kaushal R,Cronin JW, et al. (2004) Effect of Reducing Interns' Work Hours on Serious Medical Errors In Intensive Care Units. Engl J Med351:1838-1848.
17. Araujo TM (2003) Work psychosocial aspects and psychological distressamong nurses. Rev Saúde Pública 37: 424-433.
18. Okwaraji FE, Aguwa EN (2014) Burnout and psychological distress Among nurses in a Nigerian tertiary health institution. African Health sciences 14: 237-245.
19. Lasebikan VO, Oyetunde MO(2012)Burnout among Nurses in a NigerianGeneral Hospital: Prevalence and Associated Factors. ISRN Nurs10:1-6.
20. Araoye MO (2003)Research Methodology with Statistics for Health and Social Sciences. Ilorin, Nigeria: Nathadex Publishers Subject selection. Pg. No: 115-129.
21. Andrews G, Slade T (2001) Intepeting score of the Kessler PsychologicalDistress scale (K10). Austalian and New Zealand Jounal of Public Health 25: 494-497.
22. Kessler RC, Green JG, Michael J, Gruber NA, Bromet E (2010) Screening for seriousmental illness in the general population with the K6 screening scale: results from the WHO World Mental Health (WMH) survey initiative Int J Methods Psychiatr Res 1: 4-22.
23. Yiengprugsawan V, Seubsman S, Khamman S, Lim L, Sleigh AC, (2010).
24. NOI-POLLS, 2015 Official Website.
25. Miller BL (2005) The Relationship of Healthy Eating, Exercise and Sleepwith Subjective Well-being; Faculty of Health and Behavioral Sciences: School of Psychology, Deakin University.
26. Embriaco N, Papazian L, Kentish-Barnes N, PochardF, Azoulay E (2007) Burnout syndrome among critical care healthcare workers. Current Opinion in Critical Care 13: 482-488.
27. Aiken LH, Clark SP and Sloan DM (2002) Hospital Nurse staffing and patient mortality, nurse burnout, and job dissatisfaction. JAMA 288: 1987-1993.
28. Silva A, Menezes PR (2008) Burnout syndrome and common mental Disorders among community based health agents. Revista Saude Publica 42: 921- 959.
29. Uwakwe R (2005) Burnout and emotional well-being among workers andstudents at Nnewi, Nigeria. Journal of Biomedical Investigations3: 21-31.
30. Thorsen VC, Tharp ALT, Meguid T (2011)High rates of burnout among maternal health staff at a referral hospital in Malawi: A cross sectional study. BMC Nurs¬ing10: 1-7.
31. Ibikunle P, Umeadi O,Akosile C (2012) The prevalence and pattern ofBurnout Syndrome among Nigerian Physiotherapists. The Internet Journal of Chiropractic 1: 1-5.
32. Moreno B, González Jl and Garrosa E(2002)Desgaste profesional en hospitales: influencia de lasvariablessociodemográficas.Rol de enfermería25: 738-746.
33. Jenaro RC, Flores-Robaina N, González-GilF (2007) Síndrome de burnout yafrontamiento entrabajadores de acogimiento residencial de menores.Dialnet 7: 107-120.
34. Campbell DJ, Campbell KM(2003) Global versus Facet predictors ofintention to quit: Differences in a sample of male and female Singaporean managers and non managers. International Journal of human resource management 14: 1152-1177.
35. Mesmer-Magnus JR,Viswesvaran C (2005) Conver¬gence between measures of work to family and family to work conflict: A meta- analytic examination. Journal of vocational behaviour 67: 215-232.
36. Abdulla L, AL-Qahtani DM, AL-Kuwari MG (2011) Prevalence anddeterminants of burnout syndrome among primary health care physicians in Qatar. South African Family Practice 53:380-383.
37. Ramirez AJ, Graham J, Richards MA ,Cull A, Gregory WM, et al. (1995) Burnout andpsychiatric disorder among cancer clinicians. Br J Cancer 71: 1263-1269.

38. Gao YQ, Pan BC, Sun W,Wu H, Wang JN, et al. (2011) Depressive symptoms among Chinesenurses: prevalence and associated fac¬tors. Journal of Advanced Nursing 68: 1166-1175.

39. Edwards DJ, Burnard P, Hannigan B, Cooper L, Ad¬ams J, et al.(2006) Clinical supervision and Burn¬out: the influence of clinical supervision for commu¬nity mental health Nurses. Journal of Clinical Nursing 15: 1007-1015.

40. Alem A, Kebede D, Woldesemiat G, Jacobsson L, Kullgren G (1999) Theprevalence and socio-demographic correlates of mental distress in Butajira, Ethiopia. Acta Psychiatr Scand Suppl 397: 48-55.

41. Kessler RC, Berglund P, Demler O, Jin R, Merikangas KR, Walters EE(2005) Lifetime prevalence and age-of-onset distributions of DSM-IVdisorders in the National Comorbidity Survey Replication. Arch Gen Psychiatry 62: 593-602.

42. Avery J, Dal Grande E, Taylor A, Gill T(2004) Which South Australians experiencepsychological distress: Kessler psychological distress 10-item scale. Adelaide, South Australia: Population Research & Outcomes Studies Unit, South Australian Department of Health.

43. Chapman DP, Perry GS, Strine TW (2005) The vital link between chronicdisease and depressive disorders. Preventing Chronic Disease 2: 14-18.

44. Evans DL, Charney DS, Lewis L,Golden RN, Gorman JM, et al. (2005) Mood disorders in the medically ill: Scientific review and recommendations. Biological Psychiatry 58: 175-189.