



Prevalence and associated factors of work related stress among nurses working in worabe comprehensive and specialized hospital, south west Ethiopia

Susan Anand¹, Abdil Mejid²

¹ Ph.D., Jimma University, Jimma, Ethiopia

² B.Sc N, Jimma University, Jimma, Ethiopia

Abstract

Unmanaged stress leads to high levels of employee dissatisfaction, illness, absenteeism, high turnover, and decreased productivity that compromise provision of quality service to clients. Nurses are direct caregivers who serve a hospital twenty-four hours a day, seven days a week. Job related stress in nurses continues to be an area of great interest to the profession, particularly as stress affects the health of the nurses and has direct impact on the quality of care rendered to patients as well as having an economic burden on the community.

Institution based cross sectional survey was carried out from March to April, 2017, in order to estimate the prevalence and factors associated with work related stress among nurses working in Worabe Comprehensive and Specialized Hospital, Ethiopia. Self administered questionnaire were distributed to 138 nurses in the hospital, who were randomly selected for the study. Statistical software SPSS version 20 was used to analyze the data. Statistical association between work related stress and selected variables was determined by Chi-square test, with P value < 0.05 considered to be statistically significant.

Conclusion: A little more than half, 56.3% nurses at Worabe Comprehensive and Specialized Hospital were stressed at work place. Sex, age, religion, ethnicity, marital status, child rearing, professional qualification, monthly salary, work experience and department of work were associated with work related stress.

Keywords: work related stress, prevalence, nurses

Introduction

Over the years stress continues to be an increasing problem in organizations [1]. And it has become a concern for workers, employers, occupational health and safety regulators, and workers' compensation programs [2]. Unlike work pressure which is seen as positive and needed to improve performance, when the sources of pressure become too frequent without time to recover, or when just one source of pressure is beyond individual's coping ability, it is termed as work related stress [3]. Stress varies in situations and among individuals and if unmanaged can undermine the achievement of goals, both for individuals and for organizations. Particular concern has been expressed for the effects of stress on health-care professionals and, in particular, on nurses [4]. Compared to other health professionals nurses are more stressed at work [5] and this was confirmed in a study which found 66% of nurses with high work-related burnout [6]. In fact, the review by Smitha Shine quoted a survey conducted in India by Sunday Times newspaper in 1997, found nursing was the sixth most stressful profession [7]. Stress arising from work is a common cause for dissatisfaction with one's work. Studies done across USA, Canada, England, Scotland and Germany found 41% of the hospital nurses were dissatisfied with their job [8]. In Ethiopia, cross-sectional study conducted in 2012 to determine prevalence of work related stress among nurses and the associated factors showed that out of 343 nurses, 37.8% were experiencing occupational stress [9]. Stress levels revealed, 34% nurses had moderate stress and 32.7% had high levels of

stress [10].

Unmanaged stress from working with people under difficult or demanding conditions affects health of any individual [11]. Out of 73.59% of the nurses suffering from significant stress varying in severity, even moderate levels of stress were linked to psychosomatic illnesses [12]. In Gaza, Palestine, 63% nurses showed evidence of psychological distress, depression (59.7 %) and trauma (69.4%) were also revealed in the study [13]. Chronic stress at work affects patient care, hospitals as well as personal and professional life of nurses. While in developed countries of Europe, reduced efficiency, decreased capacity to perform, a lack of concern for the organization and colleagues were consequences of unmanaged work related stress among nurses [14].

Sources of stress appear to be more or less similar across the globe. Common sources of stress arising from work load and role-based factors such as lack of power, role ambiguity, and role conflict. Threats to career development and achievement, including threat of redundancy, being undervalued and unclear promotion prospects have been perceived as stressful [14]. Other sources of stress reported are death of patient, uncertainty about the patient's treatment and work load [10]. Lack of drugs and equipments required for nursing care, performing procedures that patients experience as painful and staff shortage on the unit [1, 15].

Materials and Methods

The study was conducted between March and April 2017 at

Worabe Comprehensive and Specialized Hospital in Silte zone, SNNPRE region of Ethiopia. The town has an estimated total population of 33,406 people including 16,923 males and 16,483 females. The Worabe hospital with 506 beds for inpatient treatment service provides medical, surgical, Ob & gynaec, pediatric and psychiatric services. Out of the 608 professionals employed at the hospital, 192 were nurses. An institution based cross-sectional survey was conducted for the purpose of the study. All nurses with at least six months experience and having at least one month experience in the department at time of data collection were eligible to be included for the study. After determining the sample size using formula for estimating a single population proportion, 138 nurses were randomly selected for the study.

Data collection instrument

Data collection instrument included a Socio-demographic characteristics form (age, sex, marital status, educational level, income level, and etc.) and a Stress measurement scale which was based on adaptations from the Expanded Nursing Stress Scale which was originally developed by Gray-Toft & Anderson (1981) and revised by French SE, Lenton R, Walters V, & Eyles J in 1995 [16], and other relevant literature which was completed as self-report. Socio-demographic and work related characteristics had 14 items. There were 34 items on the Work related stress among nurses which were grouped into seven major sub scales. These were: workload (has 5

items), lack of support (has 4 items), conflict with other staff (has 6 items), uncertainty regarding patient treatment (has 3 items), dealing with death & dying (has 7 items), inadequately prepared for work (has 5 items), organizational decisions (has 4 items). A four-point Likert item for each of the items with options from 1 to 4 where 1 represents "if the condition is never a cause of stressful", 2 "if the condition is sometimes stressful", 3 "if the condition is frequently stressful" and 4 "if the condition is always stressful". Reliability of the instrument was 0.708 to 0.817 in each subscale.

Ethical clearance and permission from hospital authorities were obtained prior to the study. Consent of those willing to participate, was obtained after explaining the purpose of the study and assuring confidentiality of responses. Pretest of the questionnaire was conducted on 5% of the sample size at Dalocha public health center.

Results

The response rate for the study was 97.8% out of the 138 questionnaires that were distributed

The socio-demographic profile of the respondents is described based on the presentation in the table. The majority of the nurses who participated in this study were females 89(65.93%), age thirty years and below 79(58.5%). Diploma nurses, married and not having child rearing responsibilities formed the major group in this study, 94(69.6%); 95(70.4%) and 71(52.6%) respectively. (Table 1)

Table 1: distribution of socio-demographic characteristics of nurse's working in worabe comprehensives and specialized hospital.2017 N=135

Characteristics	Frequency	Percent
Sex,		
Male,	46	34.07
Female	89	65.93
Age		
≤30	79	58.5
30-50	39	28.9
≥50	17	12.6
Religion		
-Muslim	80	59.3
-orthodox	30	22.2
-Protestant	10	7.4
-others*	15	11.1
Ethnicity		
-Silte	72	53.3
-Amhara	17	12.6
-Oromo	33	24.4
-others**	13	9.6
Marital status		
Single	32	23.7
-married	95	70.4
-widowed	4	3.0
-divorced	4	3.0
Child rearing		
NO	71	52.6
YES	64	47.4
Educational level		
Diploma	94	69.6

Degree	36	26.7
Master	5	3.7
Monthly salary(ET Birr)		
2745-4446	94	69.6
4446-6500	35	25.9
≥6500	6	4.4
Substance use		
Yes	4	3.0
No	131	97.0

Other*= Catholic, Adventist others**=Gurage, Hadiya, and Kaffa

Area of clinical Practice: Most of the nurses in this study were working in medical ward 25(18.5%) and emergency unit 22(16.3%). (Table2)

Table 2: distribution of clinical practice area of nurses working in worabe comprehensive and specialized hospital, 2017 N=135

Department	Frequency	Percent
Medical ward	25	18.5
Surgical	18	13.5
Emergency	22	16.3
OR	16	11.9
OPD	12	8.9
Maternal	9	6.7
Pediatrics	12	8.9
Psychiatric	8	5.9
ICU	13	9.6
Total	135	100.0

Work related characteristics

The respondents were predominantly on shift rotations 97(71.9%); with less than five years of work experience 92(68.1%); one third of them 47(34.8%) were working 65-72 hours per week and only 63(46.7%) were satisfied with the department where they were working.(Table3)

Table 3: Distribution of work related characteristics of nurses working in worabe comprehensive and specialized hospital, 2017 N=135

Variable	Frequency	Percent
Work shift	Fixed	38 28.1
	Rotation	97 71.9
Work experience	6months<5yrs	92 68.1
	5yrs-10yrs	24 17.8
	>10yrs	19 14.1
Work hours per week	56-64	44 32.6
	65-72	47 34.8
	73-80	36 26.7
	>80	8 5.9
Satisfaction at current department	Yes	63 46.7
	No	72 53.3

Table 5: analysis of work related stress and associated factors among nurses working in worabe comprehensive and specialized hospital, 2017 N=135

Variables		Stress present	Stress Absent	Chi-square	P Value
		Freq (%)	Freq (%)		
SEX	Male	31(22.96%)	15(11.1%)	3.491	0.03*
	Female	59(43.7%)	30(22.2%)		
Age(years)	<30	53(39.25%)	26(19.2%)	25.752	0.000*
	30-50	23(17.0%)	16(11.85%)		

Prevalence of Work Related Stress among Nurses: Work related stress was perceived by 56.3% nurses. (Fig1)

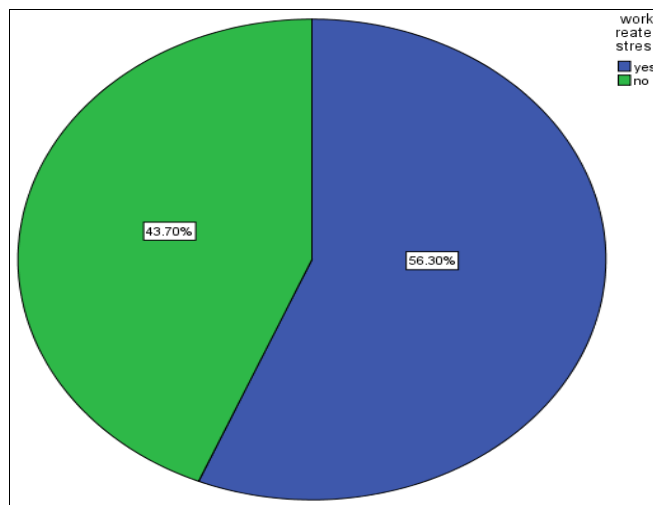


Fig 1: Prevalence of Work Related Stress among Nurses in Wash, June 2017.

Frequent Stressors at work place: The most frequently reported source of stress at work place were ‘Work load’ 60(44.4%), patient death and dying 55(40.7%), conflict with supervisor and nurses 50(37.03%), lack of support 47(35%), conflict with physician 46(34.1%), uncertainty concerning treatment 46(34.1) and feeling of inadequate 45(33.3%).

Factors Associated with work Related Stress: Chi-square was done to test association between independent variables and dependent variable. With p value less than 0.05 considered statistically significant.

Sex marital status, area of clinical practice, work experience, age, educational level, religion, ethnicity, childrearing, monthly salary, have association with work related stress (P<0.05). (Table5)

	>50	0(0.0%)	17(12.59%)		
Educational level	Diploma	67(49.6%)	27(20%)	29.346	0.000*
	Degree	9(6.6%)	27(20%)		
	Master	0(0.0%)	5(3.7%)		
Marital status	Single	17(12.59%)	15(11.1%)	8.334	0.04*
	Married	74(54.81%)	21(15.5%)		
Child rearing	Yes	46(34.07%)	25(18.5%)	30.069	0.000*
	No	30(22.2%)	34(25.1%)		
Religion	Muslim	54(40%)	26(19.2%)	26.326	0.000*
	Orthodox	20(14.8%)	10(7.4%)		
	Protestant	8(5.92%)	2(1.48%)		
	Other**	12(8.8%)	3(2.22%)		
Ethnicity	Silte	51(37.7%)	24(17.7%)	29.607	0.000*
	Amhara	11(8.14%)	3(2.22%)		
	Oromo	14(10.37%)	19(14.7%)		
	Other***	0(0.0%)	13(9.62%)		
Monthly salary (ET Birr)	2745-4446	67(49.62%)	27(20%)	33.249	0.000*
	4446-6500	9(6.6%)	26(19.2%)		
	>6500	0(0.0%)	6(4.4%)		
Work experience in years	6mths- <5yrs	65(48.1%)	27(20%)	1.937	0.1
	5-10yrs	11(8.14%)	13(6.62%)		
	>10yrs	0(0.0%)	19(14.07%)		
Work shift	Fixed	25(18.5%)	13(9.62)	37.329	0.000*
	Rotation	51(37.7%)	46(34.07%)		
Work site	Medical	17(12.59%)	8(5.92)	37.329	0.000*
	Surgical	14(10.37%)	4(2.96%)		
	Emergency	4(2.96%)	18(13.3%)		
	OR	11(8.14%)	5(3.7%)		
	OPD	6(4.4%)	6(4.44%)		
	Maternity	9(6.6%)	0(0.0%)		
	Pediatrics	6(4.4%)	6(4.44%)		
	Psychiatry	0(0.0%)	8(5.92%)		
ICU	9(6.6%)	4(2.96%)			

*P<0.05= significant association; Other=**Catholic & Adventist; others=***Gurage, Hadiya & Kaffa

Discussion

The work related stress was prevalent among 56.3% nurses. Lower than in China 66% nurses were stressed [6] and 63% in Gaza Palestine [13]. Contrarily it was higher than the findings in 37.8% in Ethiopia [9], Saudi Arabia 45.5% [17] Kuala Lumpur 24.6% [18], and 26.2% from Thailand [19] and 30% in Jordan [20]. The wide range in prevalence of work related stress experienced by nurses across countries could be due to cultural differences of organizations and individual characteristics. The sample size, varied scales used to measure work related stress also explain the difference in findings reported in the studies.

Female nurses were more stressed 59(43.7%) than male nurses 31(22.96%) which is similar to other studies [9, 13, 21-23]. It is interesting to note that Jordanian male nurses were more stressed [24]. Further, the present study found significantly association between sex and job stress (P=0.03) which is in line with the study done in Ethiopia [9, 13, 22], although another study done in Ethiopia did not find any significant association [10]. The role expectations from male and females vary across the globe even in male dominated societies and this could be a reason for the difference in results. Ethiopia which is a male dominated society with clear gender discrimination in roles played at home, could add to the burden of stress at work place for females in the present study. The different scales used to determine work related stress also explain the variations in the results from other studies and sample

characteristics as in Jordan male nurses are more common than female nurses [24].

Nurses in the younger age group below 30 years showed more stress 53(39.25%) below age 30 years compared to none of the nurses above 50 years of age, and showed very highly significant association with the job stress (.000). The nurses who are in the younger age group may have less experience and coping skills and therefore appear to be more vulnerable to stress at the work place [13, 17]. On the other hand age was not associated with work stress [10, 18] and although a positive correlation between age and emotional exhaustion was observed, the older nurses experienced more emotional exhaustion, which was explained by the decline in tolerance and enthusiasm to work in demanding work situations as age advances [25]

Married nurses 74(54.81%), in the study were more stressed than unmarried nurses which is in line with the results of studies from Saudi Arabia [17], Iran [26] and Gaza [13] and had statistically significant association (p=0.04). Unlike the findings in [10, 18] married nurses were stressed when compared to single nurses, which is similar to other studies [9, 13, 17, 22&26]. Marital responsibilities of caring for the family clash work characteristics. Besides, the stresses in married life can be carried over to the work place [27].

Nurses belonging to Muslim religion 54(40%), Silte ethnicity 51 (37.7%), were more stressed and statistically significant association with WRS (p=0.000). The nurses

belonging to Saudi nationality had more work related stress than other nationalities^[17]. Religious and cultural expectations could influence life style which could also affect ones work adjustment^[28].

Nurses in child rearing stage, 46(34.07%) reported WRS than other groups and statistically significant association ($p=0.027$). Similar findings were reported from Saudi Arabia and Japan^[17 & 26]. Having responsibility of raising young child can be perceived as stressful which can be carried over to their work area^[29].

Nurses having less than 5years work experience reported stress 65(48.1%) compared to those who were more experienced, this was statistically supported ($p=0.000$). Lack of experience was related to high levels of occupational stress^[13, 14, 24]. The study reported by Kane P, 2009 found very high stress levels although 56% nurses in her study had more than 10 years of experience, but it was not statistically significant^[12]. Contrary findings have also been revealed in other studies^[10, 17, 18] which did not find any significant association between the two variables. Long working experience was positively correlated with emotional exhaustion^[25]. Ability to cope with job-related stress factors in his/her workplace determines individual's experience of stress^[14].

Diploma level nurses 67(49.6%) perceived more stress compared to graduate and post graduate nurses and showed highly significant statistical association ($P=0.000$) Nurses with lower qualification experience less job satisfaction.^[17] Having a university degree rather than a diploma had been identified as a significant factor associated with Ethiopian nurses' intention to leave their jobs^[30]. More educated health workers have higher expectations for the extrinsic aspects of their jobs and so are more dissatisfied if these expectations are not met, even though they have higher intrinsic satisfaction due to their higher education levels^[17, 23]. When job description is not commensurate with professional qualification / preparation, it can be a source of stressor at work^[13]

Nurses with monthly salary ETB 2745-4446 reported more stress 67(49.62%) and were not satisfied in their work 41(30.37%). The monthly income had strong statistical association with stress at work place ($p=0.000$), and acts as a strong motivator to work^[12, 13] especially in high stress areas^[23].

Ninety-seven (71.9%) nurses were having shift rotations, and 51(37.7%) of them had work related stress unlike only half of them on fixed duty having job stress 25(18.5%) which is consistent with the studies done in Ethiopia, Palestine and Jordan^[9,13,22]. Work in the evening and night shift make nurses to sleep poorly. So they become drowsy, tired, low concentrated and make a mistake this results stress. On the other hand, work on weekends and holidays may create stress for the nurses because they often miss social or family activities. But this factor had no statistical association with work related stress which is similar to the findings reported in Ethiopia and Jordan^[10, 24].

Medical ward 17(12.59%), surgical ward 14(10.37%) and operation theatre 11(8.14%) were stressful areas of work among nurses. The statistical analysis suggested a strong statistical association between department of work (work site) and work related stress among the nurses ($p=0.000$). The least stress was experienced in emergency unit. This may be due to

presence of adequate and trained experienced staff to man the unit. The association between department of work and job stress is consistent with the findings reported from several studies across the globe^[9, 10, 13, 17, 18, 31, 34] The type of health care institution, organizational culture, job autonomy and Inconvenient working environment are strong predictor of nurses' stress perception^[13] and intention to leave the work place^[27, 32, 33]. The tasks to be carried out by nurses vary in each department. Nurses in medical, surgical, OR, maternity and ICU wards experience heavy workload; throughout the shift their work is centered on caring for critically ill patients and hardly any time to support each other. In specialized units where every second counts, nurses are expected to be very vigilant and cautious. Knowledge, skill, high level of professional competence is demanded of nurses to meet technological and technical challenges. Nurses often have to deal with aggression from patients, family members and work related conflicts with team nurses and doctors, which can add to the stress in these units. Whereas in departments where patients condition is stable and they are ambulatory the environment is more relaxed.

Less than half 63(46.7%) of the nurses were happy at their present department of work. The study of nurses in USA, Canada, England, Scotland and Germany showed that 41% of the hospital nurses were dissatisfied with their job^[8]. Job satisfaction has been identified as a predictor for work stress^[10]. In consequence unmanaged stress *include physical and mental health problems*, burn out, *absence from work*, reduced quality of output *and reduced productivity*^[12-14,32] and is a critical factor in determining nurses' intention to quit the organization and even the profession^[8, 27, 33].

Sources of stress while on the job were identified as work load, which was a major source of stress 60(44.4%), followed by others such as dealing with death and dying 55(40.7%), conflict with supervisor and nurses 50(37.03%), lack of support 47(35%), conflict with physician 46(34.1%), uncertainty concerning treatment 46(34.1) and feeling of inadequate 45(33.3%). These sources of stress are more or less consistent with the results from other countries^[9, 10, 12-14, 19, 25, 26] and the findings of systematic review of studies and comparative data received from European countries^[32].

Conclusion: Work related stress was observed in more than half the nurses in the study. Female nurses below 30years of age, who are married and in the child rearing stage of life were more stressed. The professional characteristics of those nurses who were more stressed could be described as diploma holders with less professional experience, low salary. They worked in medical, surgical and operation theatre and had shift rotations. The most frequent sources of stress at work were excessive work load, having to deal with death and dying of patients, conflict with staff and feeling professionally unprepared for the job.

References

1. Bashir U. Impact of Stress on Employees Job Performance. A Study on Banking Sector of Pakistan. IJMS. 2010; 2(1):122-126.
2. Ugoji EI. Managing administrative stress in educational institutions: A study of selected Nigerian universities. J Niger Delta Res. 2003; 5:90-9.

3. Mojinyinola JK. Effects of job stress on Health, Personal and work Behavior of Nurses in public Hospitals in Ibadan Metropolis, Nigeria. *Ethno-Med.* 2008; 2(2):143-148.
4. Gupta S. Why America's Nurses Are Burning Out. Stress and fatigue top the list of on-the-job health concerns. So what can be done? *Everyday Health*, 2016. Available from: <https://www.everydayhealth.com/news/why-americas-nurses-are-burning-out/> [22 March, 2017]
5. Roberts R, Paula LG, James WG. Alleviating Job Stress in Nurses. *Medscape*, 2012. Available from: https://www.medscape.com/viewarticle/765974_2 [22 March, 2017]
6. Chou, LP, Li, CY Hu, SC. Job stress and burnout in hospital employees: Comparisons of different medical professions in a regional hospital in Taiwan' *BMJ Open.* 2014; 4(2). e004185. DOI: 10.1136/bmjopen-2013-004185.
7. Smitha SA. Review of Literature About Occupational Stress Among Nurses. *IJIRAS.* 2017; 4(2):268. Available from: www.ijiras.com [16 May 2017]
8. Baumann A. Positive practice environments: quality workplaces quality patient care: Issues of *Job Satisfaction, Staffing and safety.* International Council of Nurses, 2007. Available from: https://www.twna.org.tw/frontend/un16_commission/webPages_4/IND/1.pdf [22 March 2017]
9. Salilih SZ, Abajobir AA. Work related stress and associated factors among nurses working in public hospitals of Addis Ababa, Ethiopia: A cross-sectional study. *Workplace Health Saf.* 2012; 62(8):326-332.
10. Tadesse D, Ashagre M, Tefera B. Job related stress among nurses working in Jimma Zone public hospitals, South West Ethiopia: a cross sectional study. *BMC Nursing.* Open Access. Available from, 2016. <https://bmcnurs.biomedcentral.com/articles/10.1186/s12912-016-0158-2>
11. The Society for Cardiovascular Angiography and Interventions. How Does Stress Affect Your Health? *SecondsCount.org*, 2014. Available from: <http://www.secondscount.org/healthy-living/healthy-living-detail?cid=2f82395c-fdbd-4502-ae33-c72aa37037a2#.WvNvLDNrzc>
12. Kane P. Stress causing psychosomatic illness among nurses. *Indian J Occup Environ Med.* 2009 ; 13:28-32. Available from: <http://www.ijoem.com/text.asp?2009/13/1/28/507>, 2017.
13. Al Hajjar B. Occupational stress among hospital nurses in Gaza-Palestine. Published Thesis. Available from, 2013. <https://www.escholar.manchester.ac.uk/uk-ac-man-scw:189872>.
14. Moustaka E, Constantinidis TC. Sources and effects of Work related stress. *Health Science journal.* <http://www.hsj.gr/medicine/sources-and-effects-of-workrelated-stress-in-nursing.php?aid=3575>
15. Bradley S, Kamwendo F, Chipeta E, Chimwaza W, de Pinho H, McAuliffe E. Too few staff, too many patients: a qualitative study of the impact on obstetric care providers and on quality of care in Malawi. *BMC Pregnancy and Childbirth.* 2015; 15:65. <http://doi.org/10.1186/s12884-015-0492-5>
16. French SE, Lenton R, Walters V, Eyles J. An empirical evaluation of an Expanded Nursing Stress Scale. *Journal of Nursing Measurement.* 1999; 8(2):161-78.
17. Al-Makhaita HM, Sabra AA, Hafez AS. Predictors of work-related stress among nurses working in primary and secondary health care levels in Dammam, Eastern Saudi Arabia, *J Fam Community Med.* 2014; 21(2):79-84.
18. Sharifah Zainiyah SY, Afiq IM, Chow CY, Siti Sara D. Stress and Its Associated Factors amongst Ward Nurses in A Public Hospital Kuala Lumpur. *MJPHM,* 2011; 11(1):78-85.
19. Aoki M, Keiwkarnka B, Chompikul J. Job stress among nurses in public hospitals in Ratchaburi province, Thailand. *J Pub. Health Dev.* 2011; 9(1):19-27.
20. Damit AR. Identifying sources of stress and level of job satisfaction amongst registered nurses within the first three years of work as a registered nurse in Brunei Darussalam. Published Thesis. 2007. Available from :<https://eprints.qut.edu.au/16608/>
21. Yada H, Abe H, Omori H, Matsuo H, Masaki O, Ishida Y, Katoh T. Differences in job stress experienced by female and male Japanese psychiatric nurses. *International Journal of Mental health.* 2014. Available from: <https://onlinelibrary.wiley.com/doi/full/10.1111/inm.12080>
22. Jaradat YMM. Work stress among nurses. Stressful working conditions, shift work, and workplace aggression among Nurses in Hebron District, West Bank, Palestine. 2017.
23. Ayivi-Guédéhoussou N. The determinants of job satisfaction among Nurses, Midwives and Auxillary nurses in health clinics West Africa, 2016.
24. Al-Omari O, Saber A, Awad A, Atawi S. The Impact of Unit Differences Gender and Years of Experience on Reducing Level of Stress among Staff Nurses in Amman, Jordan. 2004, Available from: https://www.researchgate.net/publication/265497070_The_Impact_of_Unit_Differences_Gender_and_Years_of_Experience_on_Reducing_Level_of_Stress_Among_Staff_Nurses_in_Jordan_2004_Amman_By
25. Yousefy AR, Ghassemi GHR. Job burnout in psychiatric and medical nurses in Isfahan, Islamic Republic of Iran, *EMHJ.* 2006; 12(5):662-669.
26. Mehrabi T, Pravin N, Yazdani M, Rafat NA. A study of the Severity of some Occupational Stresses in Nurses. *IJNMR.* 2008; 12(1). Available from: <http://ijnmr.mui.ac.ir/index.php/ijnmr/article/view/6>
27. Yamaguchi Y, Inoue T, Harada H, Oike M. Job control, work-family balance and nurses' intention to leave their profession and organization: A comparative cross-sectional survey. *International journal of Nursing Studies,* 2016; 64:52-62. Available from: <https://www.science-direct.com/science/article/pii/S002074891630150X>
28. Huang FF, Yang HH. The effects of nationality differences and work stressors on work adjustment for foreign nurse aides. *BMC Health Services Research* 11 (2011): 192. *PMC. Web,* 2018.
29. Tzeng HM. The influence of nurses' working motivation

- and job satisfaction on intention to quit: an empirical investigation in Taiwan. *International Journal of Nursing Studies*. 2002; 39(8):867-878. Available from :[https://doi.org/10.1016/S0020-7489\(02\)00027-5](https://doi.org/10.1016/S0020-7489(02)00027-5)
30. Ayalew F, Kols A, Kim YM, SchusterA,Emerson MR, Roosmalen JV, Stekelenburg J, Woldemariam D, GibsonH. Factors Affecting Turnover Intention among Nurses in Ethiopia. *World Health Popul*. 2015; 16(2):62-74. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/26860765>.
 31. Aktharsha US, Selvamathi A. Job Stress and Job Satisfaction: A Study among Nursing Personnel in Hospitals. *IJM*. 2015; 6(1):385-393.
 32. Broughton A. Work related stress. Health and well-being at work, Available from, 2010. <https://www.eurofound.europa.eu/observatories/eurwork/comparative-information/work-related-stress>.
 33. Berhane E, Wondwossen L. Assessment of Nurses perception towards nursing profession in public hospitals under Addis Ababa Health Bureau, Ethiopia, 2011. Available from: <http://hdl.handle.net/123456789/2964> [20 april 2017]
 34. Al-Hawajreh K. Exploring the relationship between occupational stress and organizational commitment among Nurses in selected Jordanian hospitals. *An- Najah Univ J Res check*. 2011; 25(7):1931-75.
 35. Mohamed kheir RA, Amara ZM, Balla SA, Mohammed HAA. Occupational Stress Among Nurses Working in Intensive Care Units in Public Hospitals of Khartoum State, Sudan.*AJHR*. 2016; 4(6):166-171. Available from: <http://www.sciencepublishinggroup.com/j/ajhr>