

Impact of Nurses' Perceived Job-Related Stressors on Job Satisfaction in Makkah Governmental Hospital in Saudi Arabia

Reem Hussain Bashehab¹, Fardus Mahmoud Ibrahim Altakroni², Amna Mahmoud Ibrahim Altakroni³, Sameer Redeed Alfadli⁴, Fawzeyah Hmdan Mohammed Alndawi⁵, Muslehah Hmdan Mohammed Alndawi⁵, Mona Ghazi Almajnooni⁵, Aisha Mahmood Abdulah Alshinqiti⁶, Samah Abdulali Ajlan Alkhalidi⁷, Fayez Hameed Alloqmani⁶

¹Specialist Nurse, Director of PHCs Nursing, Makkah, Saudi Arabia.

²Technician specialty health informatic, King Abdulaziz Hospital, Saudi Arabia.

³Nursing Technician Specialty of Miewife, Primary Care Center in Bath Quraysh, Saudi Arabia.

⁴Nursing Specialist, Nursing Administration at Primary Health Care Centre, Saudi Arabia.

⁵Nursing technician, Primary care center in Umm Al Rakah, Saudi Arabia.

⁶Nursing technician, Hindawiya Health center, Saudi Arabia.

⁷Nursing technician, Maternity and Children's Hospital, Saudi Arabia.

Abstract: Job related stressors and Job dissatisfaction are becoming an increasingly large disorder. Stress has a cost for individuals in terms of health, wellbeing & job dissatisfaction as well as in terms of absenteeism and turnover which in turn affect the quality of patient care. This study aimed to determine the main nurse's perceived job related stressors and its relationship with job satisfaction in Makkah governmental hospitals in Kingdom of Saudi Arabia. A descriptive correlational cross sectional study was carried out on a convenience sample of 148 nurse using expanded nursing stress and job satisfaction scales. The results have shown that most stressful subscale for nurses was Dealing with Patients and their families as "Frequently Stressful", and the least stressful subscale was inadequate preparation to help with the emotional needs of patients and their families as "Occasionally Stressful". There was a negative significant relationship between perceived job related stress and job satisfaction among staff nurses in Makkah governmental hospitals as indicated by (Pearson correlation = $- .437, P < 0.05$). The study concluded that Makkah Governmental Hospital staff nurses were exposed to many kinds of job related stressors which affected their level of job satisfaction which emphasis adopting strategies to reduce perceived job related stress and thus increase job satisfaction which will be reflected on patient care quality.

Key word: Job related Stressors, Job satisfaction, nurses, Governmental Hospital, Makkah.

Introduction

Stress is a well-known and identified problem within the nursing profession. According to Atkinson stress occurs when one is faced with events or encounters that they perceive as an endangerment to their physical or psychological wellbeing. Many factors in ICU environment, such as, constant noise, frequent exposing to hazards, uncomfortable procedure and patient dying were found to cause much anxiety and restlessness (Hosseinabadi et al., 2018; McGowan, 2001).

Literature had suggested a strong relationship between stress and undesirable health among medical professionals, for example, an extra-ordinary stress may be responsible for an individual's coronary diseases, hypertension, headaches, asthma, peptic ulcers, and lower-back pain among others (Siu et al., 2002; Steffy & Jones, 1988), and others of mental and physical health. This, in turn, induces lower work productivity, job morale (Pejic,2005; Lambert et al., 2007), and other human resource management problems, such as higher absenteeism, lower job satisfaction (Healy & Mckay, 2000; Lee, 2004), and higher turnover (Throckmorton, 2007). As a result, higher operational costs, lower job efficiency, and worse service quality may occur, all of which are detrimental to the hospital's performance.

The widespread nursing shortage and nurse's high turnover has become a global issue, which is of increasing importance to both the developed and developing countries (Kingma, 2001; Lu et al.,2000). In light of this, concern about recruitment and retention of nursing staff is increasing in a number of countries (Hosseinabadi et al., 2018; Lundh, 1999).

Job satisfaction has been defined as the positive feeling or attitude about various aspects or facets of the job (Lu et al., 2005), higher levels of nurse job satisfaction have been positively linked to improved quality of care, patient outcomes (Adams & Bond, 2000), and retention of staff (Newman et al., 2001). Job stress, on the other hand is the divergence that exists between role expectations and what is being accomplished in that role (McVicar, 2003); excessive chronic job stress has also been linked to burnout (Vermeir e al., 2018; Jourdain & Chenevêrt, 2010). Few researches have been conducted to investigate the relationship between job related stressors and job satisfaction among nurses in Kingdom of Saudi Arabia especially in Taif region. Such a research is needed now more than ever because of the rapid changes and the complex technology characteristic of the health care

system. By understanding the effect of job related stressors on job satisfaction, better stress management approaches can be established. As a result, the quality of care might be improved when provided by staff nurses who have low level of stress. Also, reducing the level of stress might help to retain staff and thus alleviate the nursing shortage.

Research objectives:

1. Determine and describe the main job related stressors that affect staff nurses in Makkah governmental hospitals in Kingdom of Saudi Arabia.
2. Investigate the relationship between nurse's perceived job related stress and job satisfaction.

3. Subjects and Method

Study Setting

The data has been collected from Emergency Departments, Intensive care units, Medical Wards, and Surgical Wards of Heraa general Hospital, Agiad general Hospital, and King Faisal Hospital in Makka region in Kingdom of Saudi Arabia. The three Hospitals are the main Makkah governmental Hospitals in Kingdom of Saudi Arabia.

Study Sample

The sample consisted from 148 staff nurses, working in the previously mentioned settings for at least 6 months continuously with full time employment. Head nurses and supervisors were excluded from the sample because of their work nature that is different from staff nurse's work nature. A convenient sampling method has been used to reach the sample participants; however, researchers acknowledge that this type of non-probability sampling method will provide little opportunity to control for biases.

Tools for data collection:

Tool I: Expanded Nursing stress Scale (ENSS) has been used to measure nurses job related stressors. The ENSS is an expanded and updated revision of the classic Nursing Stress Scale (NSS) developed by Gray-Toft& Anderson (1981). The NSS was the first instrument to target nursing stress rather than general job stress. The original 34 items of the NSS measured the frequency and major sources of stress in patient care situation. Major changes in health care delivery and the work environment of nurses since the development of the NSS stimulated

French et al. (2000) to identify stressful situations not reflected in the NSS and develop an expanded version useful for diverse work settings. ENSS contained 57 items in nine subscales: (a) Death and Dying, (b) Conflict with Physicians, (c) Inadequate Emotional Preparation, (e) Problems Relating to Peers, (f) Problems Relating to Supervisors, (g) Work Load, (h) Uncertainty Concerning Treatment, (i) Patients and their Families, and (j) Discrimination. The 57 items were arranged in a 5 point Likert response scale. The response were 'never stressful' (1), 'occasionally stressful' (2), 'frequently stressful' (3), 'extremely stressful' (4), and doesn't apply (5) (French et al., 2000). Internal consistency reliability was assessed using Cronbach's coefficient alpha. The 57-item ENSS demonstrated improved reliability ($\alpha = .96$) (French et al. 2000) over the original NSS ($\alpha = .89$) (Gray-Toft & Anderson, 1981b). Individual subscale reliability ranged from $\alpha = .88$ (problems with supervisors) to $\alpha = .65$ (discrimination). Factor analysis for 'discrimination' showed that the items on sexual discrimination accounted for more variance than did the one item on ethnic discrimination. The ENSS developers recommended that the discrimination items be used only as separate measures of stress until further instrument testing can be performed (French et al. 2000). Discriminant validity of the ENSS was examined by computing Product Moment Correlations with overall Life Stress ($r = .17, p < .001$ [one-tailed test]) and Health Problems Index ($r = .34, p < .01$ [two-tailed test]) (French et al., 2000).

Tool II: Job satisfaction scale (JSS) has been used to measure job satisfaction among nurses in this study. The Job Satisfaction Survey has some of its items written in each direction-positive and negative. Scores on each of nine facet subscales, based on 4 items each, can range from 4 to 24; while scores for total job satisfaction, based on the sum of all 36 items, can range from 36 to 216. Each item is scored from 1 to 6 if the original response choices are used. High scores on the scale represent job satisfaction, so the scores on the negatively worded items must be reversed before summing with the positively worded into facet or total scores. A score of 6 representing strongest agreement with a negatively worded item is considered equivalent to a score of 1 representing strongest disagreement on a positively worded item, allowing them to be combined meaningfully. The nine facets are Pay, Promotion, Supervision, Fringe Benefits, Contingent Rewards (performance based rewards), Operating Procedures (required rules and procedures), Coworkers, Nature of Work, and Communication. Below are internal consistency reliabilities (coefficient alpha), based on a sample of 2,870. (Spector, 1985).

Procedure

Formal approvals from hospitals to conduct the study were obtained before starting data collection. Also, permissions to use Expanded Nursing stress scale and Job satisfaction Scale were obtained from the authors before starting data collection process. Participation in this study was voluntary and it was based on staff nurses ability to give informed consent.

Before giving the informed consent, Researchers explained the purpose of the study and it was mentioned expressly to the participants that their responses will be treated confidentially and anonymously. Also, the participants informed that it would be impossible to identify individual answers, and they have the right to withhold their responses if, for example, the questions were too private. The staff nurses from the selected hospitals were asked to fill two questionnaires. The first questionnaire aimed to measure Job related stress (ENSS), the second scale aimed to measure job satisfaction (JSS). The staff nurses were informed that the questionnaire will be given and it will be collected during their working shift (8 hours). Researchers were present during that time for any questions. All gathered data and information were strictly confidential.

Ethical consideration:

Approvals were gained. Several Strategies were utilized to protect the subject's rights who agreed to participate in this study. First, oral written consent of the subjects was obtained prior to the administration of the questionnaire. The subjects were informed of the purpose of the study, that the participation was voluntary, and that they had the right to refuse to participate. Furthermore, the subjects were told that they can refrain from answering any questions and they can terminate at any time. Anonymity of the subjects was maintained at all times.

3. Results

A. Descriptive statistics

SPSS program (version 22) was used to analyze the results. Out of 200 Questionnaires distributed, 148 staff nurses completed the Questionnaires. Of the 148 staff nurses who responded, 34 nurses (23%) were male and 114 nurses (77 %) were female . 55.4% were younger than 30 years old, 38% were aged between 30-40 years, and 6.6 % were more than 40 years. The nursing samples were, therefore, youthful staff nurses (the majority is younger than 30 years old). 33.8% of staff nurses were from King Faisal hospital, 32.4% of staff

nurses were from Agyad hospital, and 33.8% of staff nurses were from Heraa general Hospital. 35.8 % of staff nurses were working in Emergency Department, 29.7% of staff nurses were working in the ICU setting. 23% of staff nurses were working in Medical Wards, and 11.5 % of staff nurses were working in Surgical Wards. 44.6% of staff nurses were holding Diploma degree and 55.4 % of staff nurses were holding Bachelor degree.

Demographic Variables	Frequency	Valid percent
Gender		
Male	34	23%
Female	114	77%
Hospital		
King Faisal Hospital	50	33.8%
Agyad general Hospital	48	32.4%
Heraa general Hospital	50	33.8%
Work Setting		
I.C.U	44	29.7%
Emergency	53	35.8%
Medical Wards	34	23%
Surgical Ward	17	11.5%
Education		
Bachelor	82	55.4%
Diploma	66	44.6%
Age		
Less than 30 years	82	55.4%
30 – 40 years	56	38%
More than 40 years	10	6.6%

Table (2) illustrates Descriptive Statistics for Demographic Variables. Therefore, youthful staff nurses (the majority is younger than 30 years old). 33.8% of staff nurses were from King Abdul-Aziz specialist hospital, 32.4% of staff nurses were from King Faisal Hospital, and 33.8% of staff nurses were from Pediatric Hospital. 35.8 % of staff nurses were working in Emergency Department, 29.7% of staff nurses were working in the ICU setting. 23% of staff nurses were working in Medical Wards, and 11.5 % of staff nurses were working in Surgical

Wards. 44.6% of staff nurses were holding Diploma degree and 55.4 % of staff nurses were holding Bachelor degree. Table (2) illustrates Descriptive Statistics for Demographic Variables.

Subscales	N	Mean	Std. Deviation
Patients and Their families	148	2.8725	.77199
Workload	148	2.8356	.77529
Problems with Supervisors	148	2.8014	.97632
Uncertainty Concerning Treatment	148	2.6816	.84179
Conflict with Physicians	148	2.6270	.83906
Death and Dying	148	2.6171	.78570
Discrimination	148	2.5820	.87098
Problems with Peers	148	2.5023	.86022
Inadequate Preparation	148	2.4212	1.07283
Valid N (list wise)	148		

Perceived job related stressors:

The total perceived job related stressors among staff nurses in governmental Makkah hospitals: Saudi Arabia has been calculated using the mean and the standard deviation measures (N= 148, Mean=2.66). This is an indication that staff nurses in governmental Taif hospitals perceived their job **Occasionally** to **Frequently** stressful.

To achieve the purpose of the study, the mean and the standard deviation were calculated for items and subscales of Expanded Nursing Stress Scale. The descriptive analysis indicated that lack of enough staff to adequately cover the unit was the most stressful **event** perceived by staff nurses in the Taifgovernmental Hospitals as indicated by the Mean (N= 148, Mean=

3.17 “ Frequently stressful to extremely stressful”). And experiencing discrimination on basis of sex and Being sexually harassed were the least stressful **events** perceived by staff nurses in Taif Governmental Hospitals as indicated in the Mean (N= 148, Mean= 2.21” Occasionally stressful to.frequently.stressful")

Furthermore, The results have shown that the most stressful subscale was **Dealing with Patients and their families** (Patients making unreasonable demands, Patients' families making unreasonable demands, Being blamed for anything that goes wrong, Being the one that has to deal with patients' families, Having to deal with violent patients, Having to deal with abusive patients, Having to deal with abuse from patients' families, Not knowing whether patients' families will report you for inadequate care) as indicated by the Mean (N= 148, Mean= 2.87), and the least stressful subscale was **inadequate preparation** to help in emotional needs of patients and their families(Feeling inadequately prepared to help with the emotional needs of a patient's family, Being asked a question by a patient for which I do not have a satisfactory answer, Feeling inadequately prepared to help with the emotional needs of a patient) as indicated by Mean (N=148, M=2.24).

C.Job Satisfaction Scale Statistics (Job satisfaction among staff nurses)

The total job satisfaction among staff nurses in Makkah governmental Hospitals has been calculated using the mean and the standard deviation measures and the result was (N= 148, Mean= 4.19). And this is an indication of slight job satisfaction among staff nurses in Makkah governmental hospitals in Kingdom of Saudi Arabia. In job satisfaction scale the majority of the nurses have expressed the highest level of satisfaction regarding (the people they work with) as indicated by the Mean (N= 148, Mean= 4.25) and they have expressed the lowest level of satisfaction regarding (the communication inside the organization and the duties that they have to do or accomplish at work) as indicated by the Mean (N=148, Mean=3.66).

Correlations results

The effect of demographic variables

Two tailed T-test (independent sample test) has been used to investigate the effect of gender on perceived job related stress (There were more female staff nurses 77 % than male staff nurses 23%). There were significant statistical differences in perceived job related stress due

to gender as indicated by ($t = 2.09, P = .038 < 0.05$). Also, Two tailed T –test has been used to investigate the effect of educational level (Diploma or Bachelor Degree) on Perceived job related stress. There was significant statistical difference in perceived job related stress due to level of education as indicated by ($t = 2.57, P = .011 < 0.05$).

One way ANOVA test have been used to investigate the effect of work place (ICU, Emergency, Medical Wards, and Surgical Wards) on the perceived job related stress. There was highly significant statistical difference in job related stress due to work place as indicated by ($F = 7.04, sig. = .001 < 0.05$). To know which work places have made this significant relation, a Post Hoc Test have been used; the results have shown that ICU and Emergency Department contribute to this significant statistical difference. These results indicated that the ICU and Emergency nurses are under a high level of stress and this contribute to low level of satisfaction among them.

The effect of perceived job related stress on job satisfaction

To achieve the purpose of identifying the effect of perceived job related stress on job satisfaction among staff nurses in Makkah governmental hospitals, a Pearson correlation test has been performed. There was a negative significant relationship between perceived job related stress and job satisfaction among staff nurses in Makkah governmental hospitals as indicated by (Pearson correlation = $- .437, P < 0.05$).

Subscales	N	Mean	Std. Deviation
Patients and Their families	148	2.8725	.77199
Workload	148	2.8356	.77529
Problems with Supervisors	148	2.8014	.97632
Uncertainty Concerning Treatment	148	2.6816	.84179
Conflict with Physicians	148	2.6270	.83906
Death and Dying	148	2.6171	.78570
Discrimination	148	2.5820	.87098
Problems with Peers	148	2.5023	.86022
Inadequate Preparation	148	2.4212	1.07283
Valid N (list wise)	148		

4. Discussion

The purpose of this study was to describe main stressors affecting nurses in Makkah governmental hospitals in Kingdom of Saudi Arabia. Study results have shown that the most stressful categories for staff nurses in Makkah governmental hospitals were patient's demands, their families' complaints and nurse's workload as indicated by Patient and their families subscale mean (2.87 "frequently stressful") and Workload subscale mean (2.835 "frequently stressful") which result in Low level of job satisfaction (Total job satisfaction mean = 4.19). Caring for clients, individuals, families, groups, populations or entire communities, with multiple, complex and distressing problems can be overwhelming for even the most experienced practitioner. Nurses regularly face emotionally charged situations and encounter intense interpersonal and interprofessional situations and conflict in the workplace while trying to make appropriate and safe decisions. Nurses, as one of the professional service groups, tend to be exposed to extreme workloads. Their works are generally characterized by having a high contagious potential, being labor-intensive, having an overwhelming job shifting, and experiencing malicious complaints from patients. Compare to other general and professional service jobs, nursing requires handling complicated and dynamic occurrences under strict time pressures. Studies have generally revealed that continuously excessive workloads tend to lower their job satisfaction and deteriorate in turnover intentions (Vermeir et al., 2018; Parikh et al, 2004). Also, lack of autonomy and independency in making decisions was frequently stressful for staff nurses in clinical area as indicated by Uncertainty concerning treatment subscale (Mean= 2.68 "occasionally to frequently stressful"). The majority of staff nurses felt unable to make decisions at least sometimes, and powerless to change unsatisfactorily situations. Although some of staff nurses felt inadequately trained or equipped for their job, it was also felt that staff nurses did not always utilize their training and experience. Transition programs specifically designed to bridge the gap between the academic and service setting and to prepare nurses to utilize critical thinking skills in the management of acutely ill patients are therefore likely to be important to ensure nurses are confident to deal with the degree of autonomy they are required to demonstrate as a registered nurse (Bautista et al., 2020; Halfer, 2007).

The least stressful subscale was Inadequate preparation to deal with emotional needs of patients and their families (Feeling inadequately prepared to help with the emotional needs of a patient's family, being asked a question by a patient for which I do not have a satisfactory

answer, Feeling inadequately prepared to help with the emotional needs of a patient) which clearly suggested that staff nurses were avoiding emotional demands of the patients as evidenced by least mean (N=148, Mean = 2.42) for the inadequate preparation to meet emotional need of the patient). Factors of the intense emotional support that is needed for the patient and family is yet another burden of stress placed on nurse. In addition, exposures to pain, suffering and traumatic life events that the nurse experience on a daily basis can contribute to stress (Bautista et al., 2020; Cohen, et al. 2005). So, it is suggested that a coping mechanism specific to nursing may be that staff nurses unconsciously reducing stress in their job by setting a nursing objectives as physical objectives and avoid the emotional objectives in their job and that's opposing the philosophy of holistic care in nursing and converting the nurses into machines regarding the performance of their work.

Ways in which holistic caring could be achieved are to enhance the ability of the work groups to support each other, and to have more counseling services (Bautista et al., 2020; ICN,2007).

Because poor clinical structure, poor relationships with other professions and lack of a higher level of education for staff nurses may all lead to lower levels of confidence and higher stress levels, these issues need to be confronted as a means of caring for staff. The recently agreed clinical structure (more clearly related to the preparation for the role) may lead to increased autonomy and satisfaction. Better relationships with other professions (e.g. physician/nurse) may also relieve stress. This could be achieved through closer integration during parts of training to enhance understanding of each other's roles. A higher level of education for nurses will lead to increased confidence and an ability to discuss issues as equals with professional colleagues (AL-Hussami, 2008).

Many studies have shown that an individual nurse may behave quite differently in stress perceiving. These factors may include, for example, gender, age, education (Lee & Wang, 2002). However, the effect of personal factors, such as those studies regarding the effect of education, marital status, and number of children on stress perception and associated coping behaviors had not come to a consensus (Feng et al., 2018; Chang, et al. 2004).

Seeking strategies to relieve the stressors that are affecting the nurse in Taif governmental hospitals is one of the major tasks that administration should concern to achieve a higher level of satisfaction for staff nurses and for the clients (patients and their families in the organization). Numerous writers have suggested that manager behaviors can

have a significant impact on health outcomes for subordinates (WHO, 2007). Many nurses in this study agreed that there was a gap between the administration of the hospitals and the daily problems of the nursing service. Such factor may contribute to decrease job satisfaction (Feng et al., 2018; Lopopopo, 2002).

There was significant statistical difference in job related stress due to work place as indicated by ($F= 7.04$, sig. = $.001 > 0.05$). To know which work places have made this significant relation, a Post Hoc Test has been used; the results have shown that ICU and Emergency Department contribute to this significant statistical difference. These results indicated that ICU and Emergency staff nurses were under a high level of stress and this contribute to low level of satisfaction among them. Emergency services departments, intensive care units (ICU), and operating rooms are conventionally the three most challenging service units within a hospital (Vermeir et al., 2018; Zhang & Liu, 2005). Nurses involved in these services are always exposed to a context with high uncertainty and tension, of which may negatively impact their mental and physical health (Lambert, et al. 2004). Types and levels of stress nurse perceived may be varied along with the stage of the care they perform with patients (Vermeir et al., 2018; Lee & Wang, 2002).

Sources of stress that significantly affect ICU and ED nurses could be classified into six major types. The first type of stressors is associated with administrative regulation, such as those on medical disputes, scheduling, rotations, special mission orders, unidentified patients, workloads or unpredictable service demands. The next stress type relates to patient care, such as emergency cases, danger lists, and patient pains, some of which may be perceived by young nurses as exceptional stressors originated from patients and family. The third type of stress stems from communication with colleagues who jointly provide services, such as team members, managers, physicians, and other department associates. Knowledge and techniques, like care techniques, timely judgment, and patient education, are critical to perform services properly. Lacking such knowledge is the fourth type of stress, for this not only generates potential disputes, but also horrifies nurses by being accused of mal-practice lawsuits. The physical facility is the fifth type of stress, including noise, physical hazardous and badly restricted work areas. The compensation system of the organization specific to particular work is the sixth type of stress source (Feng et al., 2018; Adeb-Saeedi, 2002). Therefore, job related stressors should be minimized, to improve the physical and mental health of nurses, considering unique departmental demands (Kawano, 2008).

There was a significant relationship between perceived job related stress and job satisfaction among nurses in Makkah governmental hospitals as indicated by (Pearson correlation = .437, $P < 0.05$). And this correspondent with results of the researches that have studied the relationship between job related stress and job satisfaction (Feng et al., 2018; Ruggiero, 2003). This study indicates the importance of adopting strategies to reduce the perceived job related stress and to demonstrate more social support for the staff nurses in the work place in Makkah governmental Hospitals. Nurse Managers should promote an organizational culture characterized by cooperation, social integration, and team work among nurses to reduce the stressors and thus achieve the holistic care provided by the nurses and improve the quality of care provided for the patients in Makkah governmental hospitals. Moreover, researchers recommend to foster cooperation, social interaction concepts, and effective coping mechanism among nursing students for future behaviors. Students who learn the importance of cooperation and social integration during their education might better understand the significance of coworker support in the work place.

Conclusion:

Makkah Governmental Hospital staff nurses were exposed to many kinds of job related stressors which affected their level of job satisfaction. The most stressful aspect for them was dealing with Patients and their families and the least stressful aspect for them was inadequate preparation to help with the emotional needs of patients and their families. This emphasis adopting strategies to reduce perceived job related stress and thus increase job satisfaction which will be reflected on patient care quality.

Recommendation:

- 1- Future researches employ a longitudinal design to gain further insights into the effect of frequently occurring job related stressors over an extended period of time.
- 2- Designing stress reduction interventions that increase effectively job satisfaction, decrease absenteeism and turnover.
- 3- Empowering employees by sharing in problem solving and decision making.
- 4- Replication of the study with a larger sample size.

References

1. Adams A. & S. Bond. (2000). Hospital nurse's job satisfaction, individual and

- organisational characteristics. *Journal of Advanced Nursing* 32(3), 536-543.
2. Adeb-Saeedi J. (2002): Stress amongst emergency nurses. *Australian Emergency Nursing Journal* 5 (2), 19-24.
 3. AL-Hussami M. (2008). A Study of nurses' job satisfaction: the relationship to organizational commitment, perceived organizational support, transactional leadership, transformational leadership, and level of education. *European Journal of Scientific Research*; 22 (2): 286-295.
 4. Bautista, J. R., Lauria, P. A. S., Contreras, M. C. S., Maranion, M. M. G., Villanueva, H. H., Sumaguingsing, R. C., & Abeleda, R. D. (2020). Specific stressors relate to nurses' job satisfaction, perceived quality of care, and turnover intention. *International journal of nursing practice*, 26(1), e12774.
 5. Chang HC, P.Y. Chen, S.C. Kuo. (2004). Occupational stressors and related factors in new nurses in a newly established hospital. *Journal of Health Management* 2(1), 37 – 50.
 6. Cohen-Katz J. T. Capuano, D.M. Baker, & S. Shapiro S. (2005). The effects of mindfulness-based stress reduction on nurse stress and burnout, part II. *Holistic Nursing Practice*, 26-35.
 7. Feng, D., Su, S., Wang, L., & Liu, F. (2018). The protective role of self-esteem, perceived social support and job satisfaction against psychological distress among Chinese nurses. *Journal of nursing management*, 26(4), 366-372.
 8. French S., E., R. Lenton., V. Walters & J. Eyles. (2000). An empirical evaluation of an expanded nursing stress scale. *Journal of Nursing Measurement* 8, 161-178.
 9. Gray-Toft and T.G. Anderson (1981): "The nursing stress scale: development of an instrument", in *Journal of Behavioral Assessment*, Vol. 3. 1981, pp. 11-23.
 10. Halfer D. (2007) A Magnetic Strategy for New Graduate Nurses. *Nursing Economics*. Healy CM, McKay MF. (2000). Nursing stress: the effects of coping strategies and job satisfaction in a sample of Australian nurses. *Journal of Advanced Nursing* 31(3): 681-688.
 11. Hosseinabadi, M. B., Etemadinezhad, S., Ahmadi, O., Gholinia, H., Galeshi, M., & Samaei, S. E. (2018). Evaluating the relationship between job stress and job satisfaction among female hospital nurses in Babol: An application of structural equation modeling. *Health promotion perspectives*, 8(2), 102.
 12. International council of Nurses. ICN (2007) positive practice Environments: Quality

Work Place = Quality Patient care. Information and Action tool Kit.
http://www.icn.ch/matters_stress.htm.

13. Jourdain G. & D. Chenevêrt (2010). Job demands-resources, burnout and intention to leave the nursing profession: a questionnaire survey. *International Journal of Nursing Studies* 47,709-722.
14. Kawano Y. (2008). Association of job-related stress factors with Psychological and somatic symptoms among Japanese Hospital Nurses: Effect of Departmental Environmental in Acute Care Hospitals. *Journal of Occupational Health* 50, 79-85.
15. Kingma, M.(2001). Nursing migration: global treasure hunt or disaster-in-the-making? *Nursing Inquiry* 8, 205–212.
16. Lambert VA, CE. Lambert, M. Petrini, XMLi, YJ. Zhang (2007). Workplace and personal factors associated with physical and mental health in hospital nurses in China. *Nursing & Health Sciences* 9(2), 120-126.
17. Lee I& H Wang. (2002).Perceived occupational stress and related factors in public health nurses. *Journal of NursingResearch*10(4), 253-260.
18. Lee I. (2004). Work stress, coping strategies, and consequences among public health nurses - based on an interactive model. *Taiwan Journal of Public Health*23(5):398-405. (In Chinese).
19. Lopopopo, R. B. (2002) The relationship of role-related variables to job satisfaction and commitment to theorganization in a restructured hospital environment. Physical Therapy, USA. Arcadia University, 450 S Easton Rd, Glenside, PA 19038.
20. Lu H., A.E. While, &K.L .Barriball (2005). Job satisfaction among nurses: a literature review. *International Journal of Nursing Studies*42(2), 211-227.
21. Lu, K.Y.,S.L. Chious,& Y.Y. Chang. (2000). A study of the professional commitment changes from nursing students to registered nurses. *The Kaohsiung Journal of Medical Science* 16, 39–46.
22. Lundh, U. (1999). Job satisfaction among Swedish nurses and laboratory technologists.*British Journal of Nursing* 8 (14), 948–952.
23. McGowan, B. (2001). Self-reported stress and its effects on nurses. *Nursing Standard*, 15(42), 33-38. Retrieved September 28, 2006, from Ovid data base.
24. McVicar A. (2003). Workplace stress in nursing: a literaturereview. *Journal of Advanced Nursing* 44(6), 633-642.
25. Newman K., U. Maylor,& B. Chansarkar (2001).The nurse retention, quality of care

- and patient satisfaction chain. *International Journal of Health Care Quality Assurance* 14(2), 57-68.
26. Parikh P, A. Taukari, T. Bhattacharya (2004). Occupational Stress and Coping among Nurses. *J Health Management*, 6, 115-27.
 27. Pejic AR. (2005). Verbal abuse: a problem for pediatric nurses. *Pediatric Nursing*, 31 (4), 271-281.
 28. Ruggiero J. S. (2003). Health, Work variables, and job satisfaction among nurses, *JONA*, 35(5), 254-263.
 29. Siu O-L, PE. Spector, CL. Cooper, L Lu, S. Yu (2002). Managerial stress greater china: the direct moderator effects of coping strategies and working locus of control. *Applied Psychology: An International*, 51(4), 608-632.
 30. Spector P. (1985). Measurement of Human Service Staff Satisfaction: Development of the job Satisfaction Survey, *American Journal of Community Psychology*, 13(6): 693-
 31. Vermeir, P., Blot, S., Degroote, S., Vandijck, D., Mariman, A., Vanacker, T., ... & Vogelaers, D. (2018). Communication satisfaction and job satisfaction among critical care nurses and their impact on burnout and intention to leave: A questionnaire study. *Intensive and Critical Care Nursing*, 48, 21-27.
 32. World Health Organization WHO.(2007). Stress at the work place. Some simple Questions and Answers, What is Work related Stress? Occupational Health. http://www.who.int/occupational_Health/Publications/Declarati on/en/index.html.
 33. Zhang J,& Y. Liu (2005).A survey of work stress and lassitude of nurses in operating room. *Chinese Nursing Research* 19 (3A): 399-402 (in Chinese).