



Research article

Anxiety and Related Symptoms among Critical Care Nurses in Albaha, Kingdom of Saudi Arabia

Waled Amen Mohammed Ahmed ^{1,*}

1. Nursing Department, Faculty of Applied Medical Sciences, Albaha University, Albaha, Kingdom of Saudi Arabia

* **Correspondence:** Email: weliameen1980@yahoo.com

Abstract: Background/objective: Nursing is considered an Angel of Mercy profession, but it is also one of the most stressful jobs compared to other health care sectors. The aim of this study was to determine the anxiety levels and related symptoms among critical care nurses in Albaha governmental hospitals. Methods: This is a descriptive cross-sectional study. It was conducted in Albaha at four governmental hospitals in the period from January to March 2015. Sixty nurses from critical care settings (intensive care units, emergency room, and operating room) were selected by convenience sampling. Demographic data and anxiety data were collected by questionnaire; anxiety levels were obtained using the Hamilton Anxiety Scale. Data analysis was performed using Statistical Package for Social Sciences (SPSS, version 20). Results: The nurses in this study have a mild level of anxiety ranged from 0.60 to 1.52. The findings of this study reflected a statistically significant inversed correlation between anxiety levels and the age of critical care nurses. Conclusion: The anxiety level of the critical care nurses in Albaha hospitals is mild. The most reported symptoms of anxiety include anxious mood, tension, insomnia, somatic symptoms and fear.

Keywords: anxiety level; symptoms; critical care nurses

1. Introduction

Nursing is considered an Angel of Mercy profession, but it is also one of the most stressful jobs compared to other health care sectors. During their routine work, nurses interact more with children, families and people which creates more stressful situations. Previous studies have provided evidence

that they have stress and mild mental problems, especially those in critical care areas [1,2].

Nurses must be well adjusted to work stressors that they may encounter during their duties. Evidence shows that when nurses work in a satisfied setting, they will provide high quality nursing care. This will improve the standards of the provided nursing care [2].

The adaptive response to stressors may be effective in the short-term, but prolonged stress leads to physical and psychological disturbances [3]. Symptoms of unsatisfied work include physical burden, as well as mild psychiatric symptoms [4–6]. In the work environment, the symptoms may also lead to fatigue, irritability, anger, carelessness, behavior changes, or work absenteeism which will decrease the quality of the provided nursing care [7–8].

It has been reported that there are higher levels of anxiety among emergency nurses compared with other nursing care settings [9], This is attributed to the work burden and the tension in critical settings [10,11]. Furthermore, the prolonged stress not only has significant effects on nurses' quality of life, but also may decrease the quality of emergency nursing care and diminish productivity. Despite that, a limited number of studies have examined the rate of work related anxiety among nurses in the critical care settings.

The ministry of health in Saudi Arabia mainly depends on a non-Saudi female nursing workforce. Furthermore, the Saudi nursing graduates are insufficient in meeting the demands of the increasing healthcare services. Moreover, Saudi nurses in health sectors represent less than 30% of the overall nursing workforce over the Kingdom [12]. This descriptive study aimed to determine the anxiety levels and related symptoms among critical care nurses in Albaha governmental hospitals.

2. Methods

This is a descriptive cross-sectional study. It was conducted in Albaha at four governmental hospitals (King Fahad Hospital, Buljurashi Hospital, Almandaj Hospital, and Algara Hospital) in the period from January to March 2015.

Sixty nurses from critical care settings (intensive care units, emergency room, and operating room) were selected by convenience sampling from the four hospitals. Sample distribution included King Fahad Hospital $n = 20$, Buljurashi Hospital $n = 18$, Almandaj Hospital $n = 17$, and Algara Hospital $n = 5$. The nurses included were multinationals and have experiences in critical care settings.

The study was approved by the Faculty of Applied Medical Sciences at Albaha University (attached). Targeted nurses received a cover letter explaining the purpose and outcomes of the study assuring them that their participation is voluntary with the right to withdraw at any time without any penalty. Furthermore, nurses were assured that all information will be kept confidential by which the researcher only have the right to review. Nurses who agreed to participate signed a written consent form.

The data were collected by questionnaire which consisted of two parts: the first part was for demographic variables and the second part was an anxiety level questionnaire, derived from the Hamilton Anxiety Rating Scale. Data analysis was performed using Statistical Package for Social Sciences (SPSS version 20). The descriptive analysis was performed then the chi square test was done to identify the relationship between the demographic characteristics compared to the anxiety levels. The p -value less than 0.05 was considered significant.

3. Results Summary

As shown in Table 1, 60 nurses working in critical care settings (ICU, ER, or OR) at four hospitals in Albaha participated in this study. The majority had bachelor's degree (75%), followed by diploma (23.3%) and only one had master's degree (1.7%). They are about 33 ± 9 years old and have worked as a nurse about 11 ± 8 years.

Table 1. Demographic characteristics of nurses under study in Albaha Hospitals, 2015. ($n = 60$).

Parameters	Items	Freq	Percent
Hospitals	King Fahad Hospital	20	33.3
	Buljurashi Hospital	18	30.0
	Almandaj Hospital	17	28.3
	Algara Hospital	5	8.3
Nurses' qualification	Diploma	14	23.3
	Bachelor	45	75.0
	Master	1	1.7
Work area	ICU	22	36.7
	ER	23	38.3
	OR	15	25.0
Nurse: patient ratio	1:1	11	18.3
	1:2	29	48.3
	1:3	19	31.7
	1:4	1	1.7
Age	Mean	33	
	SD	9	
Years of experience	Mean	11	
	SD	8	

ICU = Intensive Care Unit; ER = Emergency Room; OR = Operating Room; SD = Standard Deviation

As shown in Table 2, the nurses participating in this study expressed a low level of anxiety; the score of anxiety level was mainly mild < 17 in 58.3% of nurses in Albaha hospitals. All respondents considered the fourteen items as a low stressor (the mean was 1.1). The symptoms of anxiety reported by nurses ranged from 0.60 to 1.52 (Table 2 and Table 3).

Table 2. Levels of anxiety for nurses in Albaha hospitals 2015, ($n = 60$).

Cluster	Mean	SD
Anxious mood	1.52	1.0
Tension	1.43	1.0
Fears	1.31	1.1
Insomnia	1.03	1.0
Intellectual (cognitive)	0.78	0.9
Depressed mood	0.97	1.0
Somatic (muscular)	1.33	1.1
Somatic (sensory)	0.67	0.7

Cardiovascular Symptoms	0.68	0.9
Respiratory Symptoms	0.60	0.8
Gastrointestinal Symptoms	0.75	0.9
Genitourinary Symptoms	0.75	0.9
Autonomic Symptoms	0.78	0.8
Behavior at Interview	0.70	0.9
Average anxiety level	1.01	0.6

SD = Standard Deviation

Table 3. A score level of anxiety among nurses in Albaha hospitals 2015, (*n* = 60).

Level of anxiety	Freq. (%)
Mild anxiety (< 17)	35 (58.3)
Mild to moderate anxiety (18–24)	21 (35)
Moderate to severe anxiety (25–30)	4 (6.7)

Figure 1 shows decrease in anxiety level with increasing age of surveyed nurses. The relationship between nurses' age and anxiety level was reached significance ($p = 0.01$).

Figure 2 showed the relationship between place of work and anxiety level. A higher anxiety level was observed among ICU and ER workers, but this did not reach significant ($p = 0.09$).

Figure 3 shows the relationship between duration of work and anxiety level. No changes in anxiety level were observed with different years of experience ($p = 0.10$).

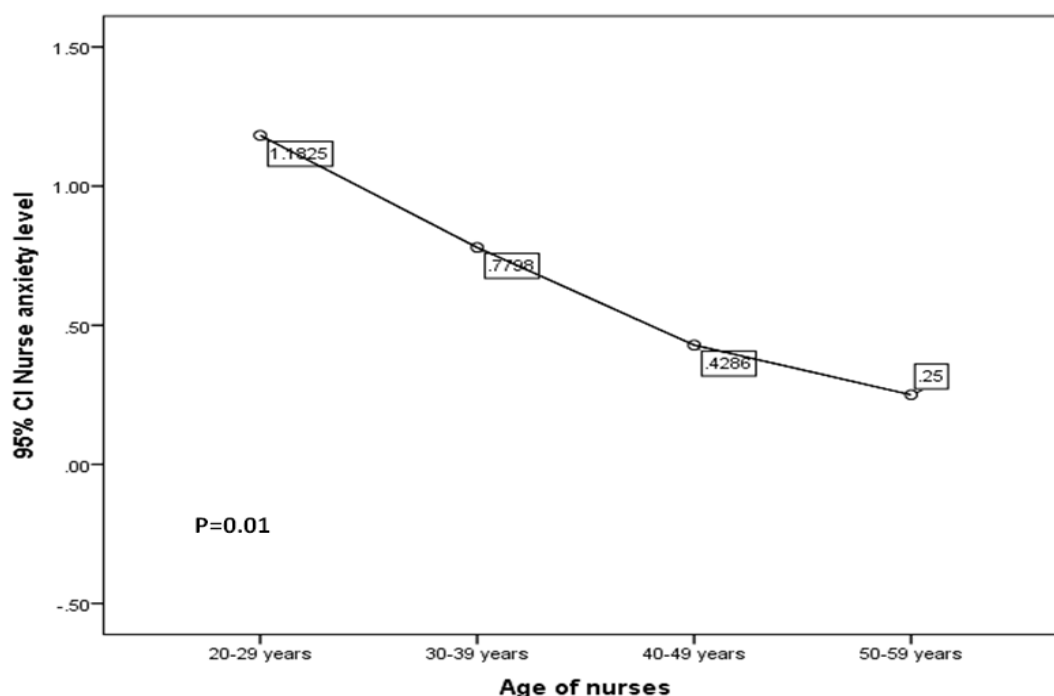


Figure 1. Relationship between nurses' age and level of anxiety in Albaha hospitals, 2015 (*n* = 60).

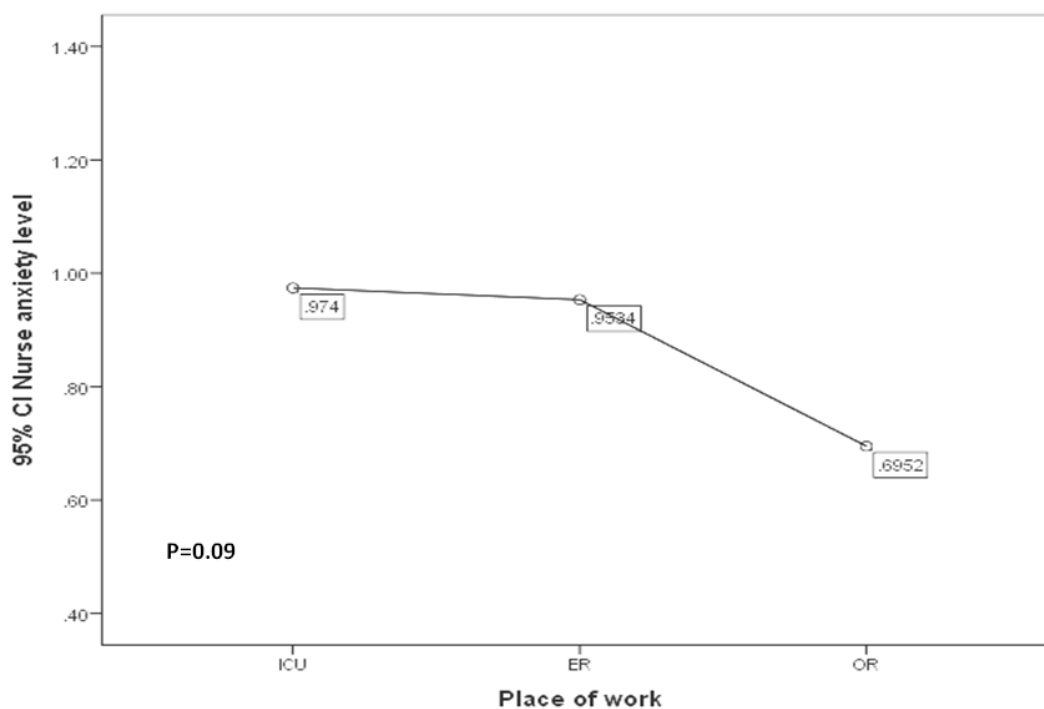


Figure 2. Relationship between place of work and level of anxiety in Albaha Hospitals, 2015 ($n = 60$).

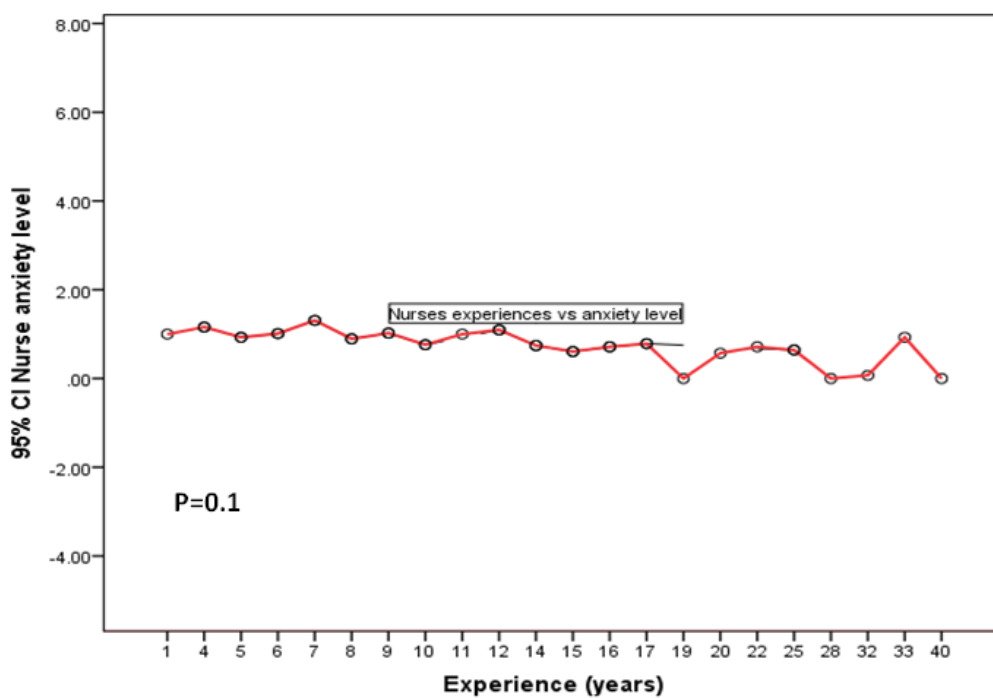


Figure 3. Relationship between nurses' years of experiences and level of anxiety in Albaha Hospitals, 2015 ($n = 60$).

4. Discussion

This study was conducted among nurses in four governmental hospitals in Albaha. Sixty nurses

from critical care settings (ICU, ER, or OR) at four governmental hospitals in Albaha participated in this study. They were about 33 ± 9 years old and have worked for 11 ± 8 years, and most of them had bachelor qualifications.

The nurses in this study have mild level of anxiety (mean = 1.1) which ranged from 0.60 to 1.52. Thus, level of anxiety may be beneficial for nurses working in critical care settings. This study showed that 58.3% of nurses in critical care units Albaha hospitals have mild anxiety (< 17). These findings are higher than findings from a study conducted on the anxiety and depression on nurses at King Fahad Medical City, Kingdom of Saudi Arabia which showed that 47% of nursing staff had anxiety symptoms (HAD Average Score ≥ 8). Of those (47% of nursing staff), 20% were probable clinical cases (mild to moderate or moderate to severe anxiety) (HAD Score ≥ 11) [13]. This study figures are also higher than the prevalence reported by Schmidt D et al. in a study conducted in Brazil and found that the prevalence of anxiety (HAD Score ≥ 8) was 31.3% among nursing professionals working at surgical units [14]. These variations could be justified by the nurses working in the critical care settings are more vulnerable for anxiety than those working in the other nursing units. The critical care settings in Albaha Hospitals are the local where the nurses suffer a lot, they are involved in End-of-Life decisions and the work is very stressful. The nurses in critical care settings provide total care and highly competent skills which creates stress and anxiety.

The findings of this study reflect a statistically significant inverse correlation between anxiety levels and the age of critical care nurses. Based on these findings we recommend setting policy measures such as a periodic rotation, for nursing staff in the more stressful environments in hospitals.

The findings from this study were similar to the findings of a study conducted in Greece among emergency nurses. That study showed that emergency nurses have mild anxiety [2]. Our findings were also comparable with the findings of a study conducted in Dubai, United Arab Emirates. In this study, investigators found that the anxiety level of the staff nurses in Albaha hospitals was similar to the anxiety level of medical staff in Dubai city. The Dubai study showed that, about 2.2% of medical staff in Dubai exhibited anxiety [15].

On the other hand this study found that anxiety level among critical care nurses was mild which is lower than the level of anxiety reported in a study for nurses in Hawler city. They were suffering from mild to moderate anxiety while 3.1% were complained from severe anxiety disorders [16].

The major strength of this study are the study distributed to four hospitals with good representation of nursing anxiety symptoms from three highly stressful environments and using the Hamilton Anxiety Rating Scale, a widely used and well-validated tool for measuring anxiety levels. The major weakness of the study is the sample, which represents a limited geographical area thus reducing its generalizability.

5. Conclusion

The anxiety level of the critical care nurses in Albaha hospitals is mild. The most frequently reported symptoms of anxiety include anxious mood, tension, insomnia, somatic symptoms and fear.

Recommendations

It is recommended that further studies to be conducted to investigate the main causes of anxiety for critical care nurses. Experimental studies are needed to identify the most effective ways for minimizing the high levels of unproductive anxiety. Finally, the rotation may prevent escalation of

anxiety symptoms which would be detrimental to nurses in high stress work environments.

References

1. Reghuras R, Jesveena M (2014) A study on occurrence of social anxiety among Nursing student & its correlation with professional adjustment in selected nursing institutions at Mangalore. *N U J H S* 4(2): ISSN 2249-7110.
2. Hariklia S, Maria NK, Fotini P, et al. (2011) Anxiety level and related symptoms in emergency nursing personnel. *J Emer Nursing* 37(4).
3. Sadock BJ, Sadock VA (2005) Kaplan and Sadock's Pocket Handbook of Clinical Psychiatry. 4th ed. New York: Lippincott Williams & Wilkins.
4. Yang MS, Shung M, Yang MJ (2004) Job-strains and minor psychiatric morbidities among hospitals nurses in the southern Taiwan. *Psychiatry Clin Neurosci* 58(6): 636-641.
5. Mealer M, Shelton A, Berg B, et al. (2007) Increase the prevalence of post-traumatic stress disorders symptoms in critical care nurses. *Am J Respir Crit Care Med* 175(7): 693-697.
6. Sahraian A, Fazelzadeh A, Mehdizadeh A (2008) Toobae S. Burnout in hospitalnurses: a comparison of internal, surgery, psychiatry and burns wards. *Int Nurs Rev* 55(1): 62-67.
7. Badger JM (2008) Critical Care Nurse Intern program: addressing psychological reactions related to critical care nursing. *Crit Care Nurs Q* 31(2): 184-187.
8. Kawano Y (2008) Association of job related stress factors with psychological and somatic symptoms among Japanese nurses: effect of departmental environment in acute care hospitals. *J Occupation Health* 50(1): 79-85.
9. Yang Y, Koh D, Ng V, et al. (2001) Salivary cortisol levels and work related stress among emergency department nurses. *J Occup Environ Med* 43 (12): 1011-1018.
10. Battles E (2007) An exploration of post-traumatic stress disorder in emergency nurses following Hurricane Katrina. *J Emerg Nurs* 33(4): 314-318.
11. Laposa J, Alden L, Fullerton L (2003) Work stress and post-traumatic stress disorder in ED nurses/personnel. *J Emerg Nurs* 29(1): 23-28.
12. Gazzaz L (2009) Saudi Nurses' Perceptions of Nursing as an Occupational Choice: A Qualitative Interview Study, Doctorate thesis, Faculty of Medicine and Allied Health Science School of Nursing, University of Nottingham, 1-10.
13. Abbas MAF, Abu Zaid LZ, Hussaein M, et al. (2013) Anxiety and Depression among Nursing Staff at King Fahad Medical City, Kingdom of Saudi Arabia. The 2013 WEI International Academic Conference Proceedings. Istanbul, Turkey.
14. Schmidt D, Dantas R, Marziale M (2011) Anxiety and depression among nursing professionals who work in surgical units. *Rev Esc Enferm USP* 45(2): 487-493.
15. Ahmed I, Banu H, Al-Fageer R, et al. (2009) Cognitive emotions: depression and anxiety in medical students and staff. *J Critical Care* 24(3): doi: 10.1016/j.jcrc. 06.003.
16. Kareem MS, Ali SK (2011) Assessment of anxiety levels among nurses at TeachingHospitals at Hawler city. College of Nursing/ Hawler Medical University.



AIMS Press

© 2015 Waled Amen Mohammed Ahmed, licensee AIMS Press. This is an open access article distributed under the terms of the Creative Commons Attribution License (<http://creativecommons.org/licenses/by/4.0>)