

# Saudi Arabian Nurses

## Are they prone to burnout syndrome?

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### ABSTRACT

**الأهداف:** إيجاد معدل متلازمة الاحتراق النفسي (BS) في الممرضات السعوديات.

**الطريقة:** أجريت هذه الدراسة المقطعية العرضية التي تشمل 60 ممرضة سعودية في مستشفى كلية الملك فهد لقوى الأمن- الخبر - المملكة العربية السعودية الذي يعتبر مركز رعاية ثالث للمنطقة الشرقية. تم توزيع قائمة الاحتراق النفسي لمسلاتش (MBI) المعتمدة على الاستبيان وذلك خلال الفترة من مايو و أغسطس 2009م بعد التعديل ليشمل العمر، والحالة الاجتماعية، و وحدة العمل، و عدد سنوات الخدمة. استخدمنا 3 عوامل MBI و التي تشمل التعب النفسي (EE)، و عدم الإحساس بالذات (DP)، و الإنجاز الشخصي (PA) لتحليل متلازمة الاحتراق النفسي BS.

**النتائج:** أكملت 37 ممرضة 61.1% الاستبيان. كان متوسط العمر  $28.10 \pm 2.07$  عام و متوسط مدة العمل  $27.36 \pm 7.2$  شهر. كان التعب النفسي EE مرتفع في 17 ممرضة 45.9% و متوسط في 13 ممرضة 35.1%. كما ارتفع عدم الإحساس بالذات في 18 ممرضة (48.6%)، و كان متوسط في 15 ممرضة (40.5%). انتشر التعب النفسي بشكل مهم في المجموعة المتزوجة بمعدل إحصائي يبلغ  $31.9 \pm 12.1$  ضد  $22.55 \pm 9.67$  ( $p=0.01$ ). تعاني الممرضات اللواتي يعملن في الأماكن الكثيرة النشاط من تعب نفسي و انحلال الشخصية بشكل أكثر عند مقارنتهم مع الممرضات اللواتي يعتنين بالمرضى في الأجنحة و العيادات الخارجية  $p=0.003$ .

**خاتمة:** أظهرت النتائج أن لدى الممرضات السعوديات ارتفاع في معدل التعب النفسي EE، و عدم الإحساس بالذات DP، و إنجازاتهن الشخصية PA قليلة لدى معظمهن.

**Objectives:** To find out the prevalence of Burnout syndrome (BS) in Saudi nurses.

**Methods:** This is a cross-sectional study involving 60 female Saudi nurses in the workforce of King Fahd University Hospital, Al-Khobar, which is a tertiary care center for the eastern province. Between May and

August 2009, Maslach Burnout Inventory (MBI) individual-based questionnaire was distributed after modification to include age, marital status, unit working and number of years in service. We used the 3 MBI factors: emotional exhaustion (EE), depersonalization (DP), and personal accomplishment (PA) for analysis of BS.

**Results:** Thirty-seven nurses (61.6%) completed the survey. The average age was  $28.10 \pm 2.07$  years and the average duration of work was  $27.36 \pm 7.2$  months. Seventeen (45.9%) had high EE and 35.1% (13) had moderate frequency of EE. Depersonalization was high in 18 (48.6%) and moderate in 15 (40.5%). Emotional exhaustion was significantly common in the married group with a frequency of  $31.9 \pm 12.1$  versus  $22.55 \pm 9.67$  ( $p=0.01$ ). The nurses working in high activity areas were more emotionally exhausted and depersonalized when compared with the nurses taking care of patients in the wards and out patients clinics ( $p=0.003$ ).

**Conclusion:** The findings show that Saudi nurses had a higher frequency of EE and DP, and most of them had low PA.

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The concept of burnout syndrome (BS) came into its existence in the 1970s and was found to be most common among health care givers. Burnout syndrome is defined as the inability to cope with emotional stress at work with a feelings of emotional exhaustion, depersonalization (negative attitude towards patients), and feeling of low personal accomplishment.<sup>1-3</sup> The prevalence of BS was found to be high in professions

requiring higher levels of commitments, high activity, and stressful work related routines, among which healthcare workers are in the top few.<sup>4</sup> Maslach and Jackson<sup>5</sup> developed the Maslach Burnout Inventory (MBI) for detecting and measuring the severity of BS. The scale evaluates 3 domains: emotional exhaustion (EE), depersonalization (DP), and personal accomplishment (PA) at work. The conceptual analysis of BS among nurses has shown that BS differs from the place of the work in the same environment. It is reported that nurses working in the demanding units such as the accident and emergency room, oncology, and intensive care units, experience a high level of physical and psychological stress leading to BS.<sup>6-9</sup> Nurses who are in a state of burnout give suboptimal care due to low performance and the effects are in the patients' well being and safety and all this happens without the knowledge of the caregiver.<sup>10-12</sup> As early as the 1990's, prevention of BS was strongly advocated among health care workers, and Western nations took initiatives to implement preventive strategies to limit and prevent professional burnout keeping in view its effect on patient safety. In Saudi Arabia, BS is still viewed as a curiosity. Neither health authorities nor physician's, until now have given due importance to the assessment and prevention of BS. This is reflected by a literature review that yielded only one published study in an indexed journal from Saudi Arabia.<sup>13</sup> As the well-being of the nurses is important for the quality of care, to make corrective measures during patient care and to avoid errors to alleviate suffering the prevalence of BS among the Saudi nurses needs to be studied. Hence, we have undertaken this pilot study to investigate the prevalence of BS among the Saudi Arabian citizens who are nurses and working at King Fahd University Hospital, Al-Khobar, Kingdom of Saudi Arabia (KSA).

**Methods.** King Fahd Hospital of the University, Al-khobar, KSA, is a tertiary care center for the College of Medicine, King Faisal University, Dammam and employs around 481 multinational nursing staff. Sixty-five (13.5%) of the nursing workforce are Saudi Arabian nationals and 60 are females. Between May and August 2009, a Maslach Burnout Inventory (MBI)<sup>5</sup> individual-based questionnaire was modified to include the age, marital status, unit working, and the number of years on the work force and was distributed among the female Saudi nurses. We explained to all the nurses the importance of the study and emphasized the importance of truthful answers. The questionnaire was distributed and collected on site when completed. The inclusion criteria were Saudi nationals and female staff. The Research and Ethical Committee of the College of Medicine, King Faisal University, Dammam and King

Fahd University Hospital, Al-Khobar, KSA approved the study. We used the 3 MBI factors<sup>5</sup> for detecting and measuring the severity of BS. In each of the 3 factors, 22 different items were assessed, with a 6-point score. In EE, a score of  $\geq 27$  is considered as high frequency, a score of 17-26 is considered as moderate, and 0-16 is considered as low EE. In the DP scale, a score of  $\geq 13$  is considered as high. The questionnaire was in English with Arabic translation.

Data were entered into the database and analyzed using the Statistical Package for Social Sciences Version 14.0, (SPSS, Chicago, Illinois, USA) with statistical significance set at  $p < 0.05$ , and confidence intervals of 95%. Descriptive statistics were expressed as mean  $\pm$  SD unless otherwise mentioned. All variables were tested and Student's t-test was used for comparison of the means as appropriate.

**Results.** Thirty-seven nurses (61.6%) completed the survey. The average age was  $28.10 \pm 2.07$  years (range 24-33) and the average duration of work was  $27.36 \pm 7.2$  months. Seventeen had a high EE and 13 had a moderate frequency of EE (Table 1). The prevalence of EE among the nurses is summarized in Table 1. Nurses who were younger had significantly low frequency of EE ( $p \leq 0.05$  at 95% confidence intervals, odds ratio [OR] 0.365). Depersonalization was high in 18 (48.6%) and moderate in 15 (40.5%) (Table 2). Approximately 13.6% of nurses had high PA and 17% ranked low (Table 3). Nurses who had worked longer durations had higher PA when compared to those with low PA ( $p = 0.01$  at 95% confidence intervals, OR -1.56). Among the 3 domains, EE was significantly common in the married group with EE frequency of  $31.9 \pm 12.1$  versus  $22.55 \pm 9.67$  ( $p = 0.01$  at 95% confidence intervals, OR 1.95) while there was no significant difference in DP and PA (Table 4).

There was no significant difference in the frequency of EE and DP among nurses working in the high stressful areas such as the emergency room, operating room, and intensive care units when compared with the nurses taking care of patients in the wards and out patients clinics, but the former group had a significantly higher PA ( $p = 0.01$ ).

**Discussion.** The relevant findings of this study are: BS is highly existent among the Saudi citizens who are practicing nurses, with a high frequency of EE and DP, and low feeling of PA. Secondly, the study reveals that the prevalence of BS is more common among Saudi Arabian citizens nurses when compared to nurses of foreign countries working under similar conditions.<sup>14</sup> The prevalence of BS in foreign nurses working in our hospital was lower when compared to Saudi nurses.<sup>14</sup> Lastly, the study also shows that the institutions does not

have any support group in the prevention of BS among nurses. The BS leads to negative health conditions affecting personal well-being and subsequently decreasing the quality and efficacy of patient care.<sup>15,16</sup> In this study, we found the incidence of high EE (45.9%) compared to the report of Aiken et al<sup>17</sup> (43%). Wide variations of prevalence of BS among nurses is reported. Kanai-Pak et al<sup>18</sup> found 56% of nurses had a high burnout while 32.8% of burnout was reported by Poncet et al.<sup>19</sup> In our study, the prevalence was approximately 70%. There could be various reasons for such a difference and the most apparent is the number of hours the Saudi nurses are obliged to work weekly. In the western countries, the minimum work schedule is 35 hours weekly whereas in our hospital they work 44 hours weekly. Secondly, at the present time, most of the Saudi nurses involved in patient care are  $\leq 35$  years and age was reported as a risk

for emotional stress and burnout.<sup>20,21</sup> Overseas nurses are hired after a minimum of 5 years from graduation, whereas Saudi nurses are hired once they graduate from the nursing school. More trained colleagues and this could increase prevalence of BS among local nurses. However, this is only a speculation and not a finding of this study. Within the same hospital, nurses working at different locations suffer from BS differently. Nurses working in the intensive care units with serious patients, and accident and emergency rooms where the young and healthy are taken care of after acute trauma and who undergo life-and-death issues have a higher prevalence of BS.<sup>9,21</sup> In our study, we did not find any statistical difference. Contrary to this, we found nurses working in the intensive care units had a higher PA when compared to nurses working elsewhere. The role of the nurses over centuries is to take care of the people who

**Table 1** - Emotional exhaustion (EE) subscale (N=37).

Variables	High	Moderate	Low
Number of staff (%)	17 (45.9)	13 (35.1)	7 (19)
Age (years) (mean $\pm$ SD)	28.4 $\pm$ 0.7	28.5 $\pm$ 1.8	26.66 $\pm$ 1.8
Average frequency (mean $\pm$ SD)	37 $\pm$ 8.4	21.67 $\pm$ 2.7	16 $\pm$ 3.2
Duration on job (months) (mean $\pm$ SD)	29.1 $\pm$ 6.4	25.3 $\pm$ 5.6	31.2 $\pm$ 2.3

Maslach Burnout Inventory scale (EE):  $\geq 27$  = High, 17-26 = Moderate, and 0-16 = Low

**Table 2** - Depersonalization (DP) subscale (N=37).

Variables	High	Moderate	Low
Number of staff (%)	18 (48.6)	15 (40.5)	4 (10.9)
Age (years) (mean $\pm$ SD)	28.75 $\pm$ 1.46	27.38 $\pm$ 2.9	28.33 $\pm$ 1.15
Average frequency (mean $\pm$ SD)	16.88 $\pm$ 3.65	9.5 $\pm$ 1.9	5.33 $\pm$ 1.1
Duration on job (months) (mean $\pm$ SD)	29.25 $\pm$ 5.9	25.25 $\pm$ 9.2	28 $\pm$ 6.9

Maslach Burnout Inventory scale (DP):  $\geq 13$  = High, 7-12 = Moderate, and 0-6 = Low

**Table 3** - Personal accomplishment (PA) subscale (N=37).

Variables	High	Moderate	Low
Number of staff (%)	5 (13.6)	15 (40.5)	17 (45.9)
Age (years) (mean $\pm$ SD)	28 $\pm$ 1.73	27.2 $\pm$ 1.17	28.28 $\pm$ 2.5
Average frequency (mean $\pm$ SD)	24.6 $\pm$ 6.7	33.7 $\pm$ 6.6	40.6 $\pm$ 4.5
Duration on job (months) (mean $\pm$ SD)	27.66 $\pm$ 1.7	26.4 $\pm$ 8.3	22.23 $\pm$ 7.5

Maslach Burnout Inventory scale (PA):  $\leq 30$  = High, 31-36 = Moderate, and  $\geq 37$  = Low

**Table 4** - Burnout and marital status.

Variables	Married	Unmarried	P-value
Number of nurses	16	21	
Emotional exhaustion (mean $\pm$ SD)	31.9 $\pm$ 12.1	22.55 $\pm$ 9.67	0.01
Depersonalization (mean $\pm$ SD)	12 $\pm$ 4.62	11.1 $\pm$ 5.68	0.05
Personal accomplishment (mean $\pm$ SD)	33.9 $\pm$ 7.9	31.72 $\pm$ 9.31	0.4

are sick and desperate making the nursing profession essentially humanitarian. Their dominant approach is to help people in trouble. The inherent nature of their work of caring for the sick and exposure to death from close quarters make them most vulnerable to be affected emotionally. Added to the professional demands, the ethnic Saudi nurses have other factors affecting their well being. Recently, it was reported that Saudi female nurses have increased stress at home as well, as Saudi families object to their girls working in the hospitals.<sup>22</sup> Recently, there were 70,000 nurses working in Saudi Arabia and 22% of them were Saudis.<sup>23</sup> The Ministry of Health is intending to employ approximately 70,000 more nurses in the next 5 years and if this happens, the health care management should recognize the importance of BS, and take proactive steps to reduce burnout through system wide intervention programs, and make the well being of nurses a priority. This will not only decrease the prevalence of BS, but also cause greater benefits in terms of patient safety by reducing errors in care and adverse effects.

This study has several limitations. This type of survey was not performed before in nurses in our country, thus the presented results are the first, thus, the findings should be viewed cautiously. Secondly, the complex nature of MBI in the English language has not been clearly understood by the Saudi nurses even though every attempt was made to explain the questionnaire, and lastly, the study sample size is small and the sample from one hospital cannot be generalized for the whole country. The call of the hour is to perform more studies involving all regions, and on that basis policies can be formulated.

In conclusion, our findings suggest that EE and low PA leading to burnout is high when compared with the international literature. The clinical significance of our findings cannot be overlooked and we emphasize that the hospital and nursing administrators should recognize the importance of prevention of the prevalence of burnout among their staff. It is time now to make policies and guidelines so that they can be implemented in time.

## References

- Maslach C, Schaufeli WB, Leiter MP. Job burnout. *Annu Rev Psychol* 2001; 52: 397-422.
- Teng CI, Chang SS, Hsu KH. Emotional stability of nurses: impact on patient safety. *J Adv Nurs* 2009; 7. [Epub ahead of print]
- Della Valle E, De Pascale G, Cuccaro A, Di Mare M, Padovano L, Carbone U, et al. [Burnout: rising interest phenomenon in stressful workplace]. *Ann Ig* 2006; 18: 171-177. (Italian)
- Lesić AR, Stefanovic NP, Perunicic I, Milenkovic P, Tosevski DL, Bumbasirevic MZ. Burnout in Belgrade orthopaedic surgeons and general practitioners, a preliminary report. *Acta Chir Jugosl* 2009; 56: 53-59.
- Maslach C, Jackson SE. The measurement of burn-out. *J Occup Behav* 1981; 22: 99-113.
- Braithwaite M. Nurse burnout and stress in the NICU. *Adv Neonatal Care* 2008; 8: 343-347.
- Raggio B, Malacarne P. Burnout in Intensive care unit. *Minerva Anestesiol* 2007; 73: 195-200.
- Petrova GG, Todorova MT, Mateva NG. Prerequisites for the occurrence of burnout syndrome in oncology nurses. *Folia Med (Plovdiv)* 2005; 47: 39-44.
- Gillespie M, Melby V. Burnout among nursing staff in accident and emergency and acute medicine: a comparative study. *Clin Nurs* 2003; 12: 842-851.
- Reader TW, Cuthbertson BH, Decruyenaere J. Burnout in the ICU: potential consequences for staff and patient well-being. *Intensive Care Med* 2008; 34: 4-6.
- Lin L, Liang BA. Addressing the nursing work environment to promote patient safety. *Nurs Forum* 2007; 42: 20-30.
- Garrett C. The effect of nurse staffing patterns on medical errors and nurse burnout. *AORN J* 2008; 87: 1191-1204.
- Sadat-Ali M, Al-Habdan I, Al-Dakheel DA, Shriyan D. Are orthopaedic surgeons prone to burnout? *Saudi Med J* 2005; 26: 1180-1182.
- Al-Turki HA, Al-Turki RA, Al-Dardas HA, Al-Gazal MR, Al-Maghrabi GH, Al-Enizi NH, et al. Burnout syndrome among nurses in Saudi Arabia. *Annals of African Medicine Journal* 2010; (In press)
- Lederer W, Kinzl JF, Traweger C, Dosch J, Sumann G. Fully developed burnout and burnout risk in intensive care personnel at a university hospital. *Anaesth Intensive Care* 2008; 36: 208-223.
- Meltzer LS, Huckabay LM. Critical care nurses' perceptions of futile care and its effect on burnout. *Am J Crit Care* 2004; 13: 202-208.
- Aiken L, Clarke S, Sloane D, for the International Hospital Outcomes Research Consortium. Hospital nurse staffing and patient mortality, nurse burnout, and job dissatisfaction. *JAMA* 2002; 288: 1987-1993.
- Kanai-Pak M, Aiken LH, Sloane DM, Poghosyan L. Poor work environments and nurse inexperience are associated with burnout, job dissatisfaction and quality deficits in Japanese hospitals. *J Clin Nurs* 2008; 17: 3324-3329.
- Poncet MC, Toullic P, Papazian L, Kentish-Barnes N, Timsit JF, Pochard F, et al. Burnout syndrome in critical care nursing staff. *Am J Respir Crit Care Med* 2007; 175: 698-704.
- Embriaco N, Papazian L, Kentish-Barnes N, Pochard F, Azoulay E. Burnout syndrome among critical care healthcare workers. *Curr Opin Crit Care* 2007; 13: 482-488.
- Raggio B, Malacarne P. Burnout in intensive care unit. *Minerva Anestesiol* 2007; 73: 195-200.
- Arab News. Saudi Nurses face opposition from kin. (Updated 2006 November 17, Accessed 2009 May). Available from URL: <http://archive.arabnews.com?page=1&section=0&article=88913&d=17&m=11&y=2006>
- Abu-Zinadah S. The inception of nursing regulation in Saudi Arabia. (Update 2010 February, Accessed 2009 May). Available from URL: [www.moh.gov.sa](http://www.moh.gov.sa)