Depression in the Nurses of the Special Wards versus Nurses of the General Wards, a Comparative Study

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Abstract

Introduction: Depression is one of the most common and serious disorders that threaten human physical and psychological health. The incidence of depression in nurses who work in special wards compared to general wards has been debated for a longtime. In this study, we planned to compare the rate of depression and related factors between these two groups.

Materials & Methods: Questionnaires about demographic factors, duration of daily work time and marital status were distributed randomly among 200 nurses working in special wards and 200 nurses working in general wards in 3 hospitals affiliated to Shahid Beheshti University (Modarres, Taleghani, Shohadaye Tajrish hospitals) in the summer and autumn 2006. The causes of admission of the patients were determined to assess their role in the occurrence of depression. To analyze depression, Beck depression inventory (BDI) score was used and the related intervening factors were compared between the two groups.

Results: The two groups were similar in sex (p=0.12), duration of daily work time (p=0.18) and marital status (p=0.23). The major cause of admission in special wards was malignancy (33.3 %) which was significantly higher than the rate of cancer patients in general wards (7.8%, p=0.03) (Table 1)

Mean BDI score in special wards' nurses and in general wards' nurses was 9.3 ±7.36 and1±6.66, respectively.

Conclusion: All nurses had some degrees of anxiety and stress, but there was no significant difference in the incidence of depression; however, it seems that exposure to numerous stressful experiences over a life time of nursing and a lack of control over these experiences contributed to the high level of anxiety and depression seen in all nursing groups. Although the intensive wards' nurses were more involved with cancer patients compared to general wards' nurses, the rate of depression did not show any significant differences in the two groups. Therefore, dealing with hopeless cancer patients did not increase the rate of depression in intensive wards' nursing stuff and the intensive care environment does not seem to be more stressful for nursing staff in comparison with general care units.

Keywords: anxiety, CCU, depression, ICU, nurse cancer, Iran

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Introduction

Many psychologically or psychologically ill patients and even healthy

individuals suffer from depression. [1] Of course, we cannot estimate its prevalence exactly. Depression may be part of a more complicated syndrome. [2] It may be presented as a grief reaction. [3] Women are more commonly afflicted. [4]

According to a study in our country, after cardiovascular and trauma, depression is the third cause and cancer is the fourth cause [5] of disease burden. [6]The overall incidence is 21%. It is more common in women (24.6%) compared to men (16.4 %), and more common in urban than rural areas. [6] Nearly 2/3 of depressed patients also have anxiety. Some clinicians estimate that its prevalence is up to 10% in the general population and up to 5% in primary health care clinics. [6] In our country, 20.8% of people suffer from anxiety which is more prevalent in women (25.4%) than men (14.9%). [7]

Nurses deal with patients' pains and problems and have direct relationships with patients and their families.

They also have their own economic, social and family problems. Nursing staff of special wards are exposed to many stress factors including being involved with critically ill and cancer patients, work

load, work in a closed environment and high sound pollution due to cardiac function monitors, ventilators and infusion pumps with their appropriate or inappropriate alarms. In several studies, the incidence of depression and its signs and symptoms has been reported to be higher in nurses who work in special wards rather than general wards (1). Meanwhile, some other studies have shown no differences between these two groups of nurses and even many of them revealed that anxiety and depression is higher in nurses who work in general wards in comparison with those who work in Intensive Care Units (ICU) [2,3].

It is not known whether intensive wards (ICU or CCU) are more stressful for nurses than general ward and no approved epidemiologic data is available regarding mixed anxiety depression disorder in the nurses who work in special wards and general wards, therefore, we tried to answer this question in our study.

Materials & Methods

We compared depression in nurses working in general wards and special wards (ICU, CCU) in this study. It was a cross-sectional study performed in the summer and autumn 2006. At first, we explained our goals and the study to the nurses. The demographic data such as age, sex, marital status and daily work time were recorded. The causes of admission of the patients were determined to assess their role in the occurrence of depression. The diagnoses of the nurses' patients were recorded. We used Beck Depression Test (BDT) for determining the depression level. The highest score was 63 which indicated the deepest level of depression. Mild and transient forms of depression are not pathologic based on Beck Test. We studied nurses working in the hospitals affiliated to Shahid Beheshti University. The sample number was based on the subsequent formula, and we chose 200 cases in each group.

$$n = \left[\frac{z_a \sqrt{2\pi_2(1-\pi_2)} - z\beta\sqrt{\pi t(1-\pi t) + \pi c(1-\pi_c)}}{\pi t - \pi_c} \right]$$

α=0.05 β=0.2

All nurses of the three hospitals of Shahid Beheshti University (Modarres, Taleghani, Shohada Tajrish Hospitals) were included. The exclusion

criterion was a previous history of any psychiatric disorder. All collected data was analyzed with SPSS. The Excel XP program was used for diagrams.

P value less than 0.05 was considered significant.

Results

We studied 200 nurses working in special wards including ICU and CCU and 200 nurses working in general wards of Shahid Beheshti University hospitals. One nurse from the special group and 10 from the general group were excluded due to baseline psychiatric problems.

The two groups were statistically different for those aged more than 40 years (7.5% in the special and 19.5% in the general group, p value =0.04) but in those aged younger than 40, there was no difference. (p =0.05) (Fig 1)

The two groups were similar in sex (p=0.12) (Fig 2), duration of daily work time (p=0.18) (Fig 4), and marital status. (43.5 % were single and 56.5 % were married, p=0.23).

The cause of admission of the patients were recorded and compared between the two groups. The major cause of admission in special wards was malignancy (33.3 %) which was significantly higher than the rate of cancer patients in general wards (7.8%, p=0.03) (Table 1)

Overall, 33 nurses (16.6 %) working in special wards and 37 nurses (19.5 %) working in general wards had some degrees of depression which was not statistically different (p=0.458).

The prevalence of depression in female and male nurses in special and general wards was 20.6 %, 16.7 %, 5 % and 18%, respectively.

Finally, we compared depression in the two groups. The mean Beck score was 9.99 ± 7.69 (mean ± SD) in nurses working in special wards and 10.98 ±8.87 (mean±SD) in nurses working in general

Table 1: *The relative frequency of the causes of the admission of the patients in general wards compared to special wards.*

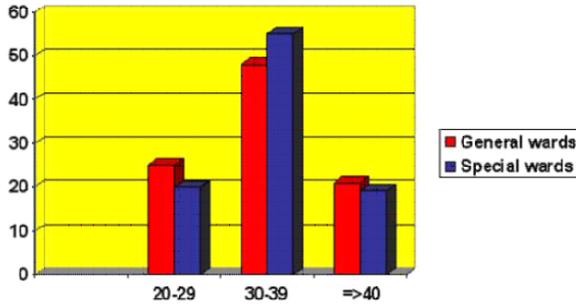| Cause of the admission of the patients	Percent of the patients general wards	Percent of the patients special wards
Malignancy	7.8%	33.3%
Cardiovascular	12.2	13.7%
Trauma	12.5	23.8
Infection	8.2%	4.7
General systemic diseases	59.3	24.5

Fig1: Bar diagram of age prevalence in special wards nurses versus general wards nurses.
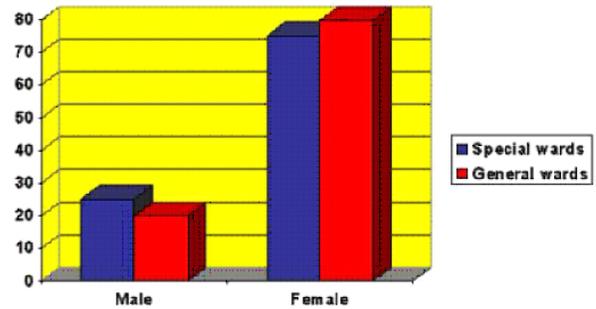

Fig 2: Bar diagram of sex distribution in special wards nurses versus general wards nurses.
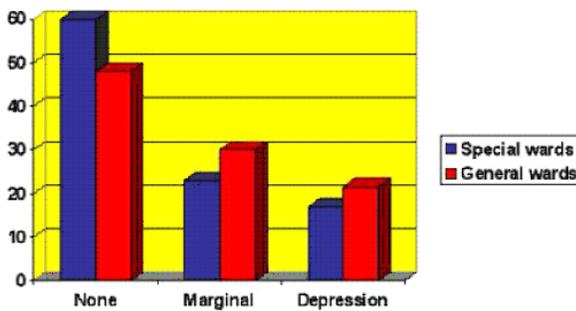

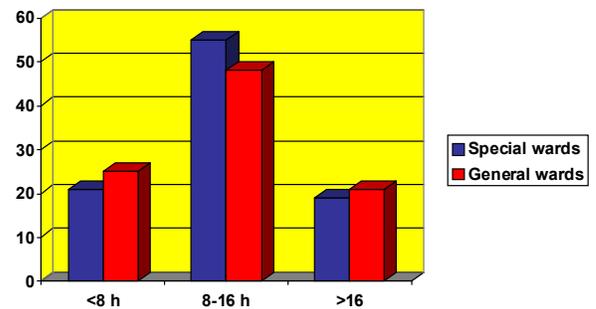Fig 3: Bar diagram of the status of depression in special wards nurses versus general wards nurses.

Fig 4: Bar diagram of daily work time in special wards' nurses versus general wards nurses.

wards. The difference was not statistically significant (p = 0.065) (Fig 3).

Although the nurses who work in special wards were more involved with cancer patients compared to nurses working in general wards, the rate of depression did not show any significant difference in the two groups.

Discussion

Depression and anxiety are the most common psychiatric disorders which threaten human physical and psychological health [1]. Nurses work in stressful situations [8], so stress may be a major reason for psychiatric disorders among nurses. [9] In this study, we compared different degrees of depression in nurses working in general and special wards which did not show any statistically significant differences.

According to Bratt et al., psychological stress and anxiety occurs more frequently in nurses who work in special wards [10].

In a study by Evans, depression and anxiety was more common in men than women [11]. In our study, the prevalence of depression was higher in female nurses rather than male nurses which is similar to normal population.

According to other studies, it seems that all nurses experience significant degrees of occupational anxiety and psychological stress [4]. There was no significant difference in the incidence of depression between nurses who worked in special or general wards. So, it seems that factors other than occupational status may be responsible.

Analyzing the cause of admission of the patients showed no statistically significant relationship with the depression score of the nurses in the two groups (p=0.37). In spite of the fact that the nurses who worked in special wards were more involved with cancer and critically ill patients, the rate of depression did not show any significant differences in the two groups. Therefore, dealing with hopeless cancer and critically ill patients did not increase the

rate of depression in the nursing stuff of the special wards.

Conclusion

To recognize the differences and the prevalence of depression or anxiety in special and general wards nurses, more delicate prospective studies are needed and we recommend that the prevalence of depression in nurses regarding other contributing factors such as type of patient's disease, nursing authority, and communication to doctors, patients and head-nurses be evaluated to devise better programs for these hard-working health care professionals.

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