

PREVALENCE OF BACKACHE AMONG IRAQI NURSES

Faiza A.K. Mohammed¹, Wajiha Ali-Mustaq¹, Hikmet Jamil²

¹Dept. of Comm. Health., Coll. of Nursing and ²Dept. of Comm. Med., Coll. of Med., Uni. of Baghdad, Iraq.

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معدل انتشار الآم الظهر بين الممرضات في مستشفيات بغداد

الخلاصة:

أجريت الدراسة على مجموعة من الممرضات تتكون من ٥٦٠ ممرضة من مختلف فئات التمريض واللاتي يعملن في ٢٧ مستشفى حكومي في مدينة بغداد وكذلك على مجموعة ضابطة من عامة النساء تتكون من ٥٦٠ امرأة يمثلن مهنة مختلفة عدا التمريض بغية معرفة معدل انتشار الآم الظهر بين المجموعتين. لقد كان معدل انتشار الآم الظهر بين مجموعة الممرضات ٥٣.٣٪ والمجموعة الضابطة ٣٦.٦٪ والفرق كان ذو قيمة معنوية احصائية. لقد تبين ان الآم الظهر تزداد عند المجموعتين كلما تقدم الافراد في السن او بسنوات الخدمة. ان معدل انتشار الآم الظهر كان اعلى (٦٧.٦٪) عند الممرضات اللاتي يعملن في صالة العمليات مقارنة بباقي الاقسام والشعب في المستشفيات. لقد تبين ان معدل انتشار الآم الظهر بين المجموعتين كان اعلى في من لديهم زيادة في الوزن والعكس صحيح في من لديهم نقصان في الوزن.

SUMMARY:

Five hundred and sixty nurses (GI) from 27 state hospitals in Baghdad City and 560 women from the general public (GII) were studied for the prevalence of backache. The prevalence of backache among GI was 53.2% and among GII was 36.6%, the difference was statistically significant. The prevalence of backache among GI and GII was found to increase as age and length of employment increased, also the prevalence was higher (67.6%) among nurses who worked in operation theatre rooms in comparison to other area's of work. A higher prevalence found among over weight people from both groups (GI and GII) while the reverse was found among the under weight.

INTRODUCTION:

The hospital, traditionally is a Heaven for the sick, but unfortunately it is a hazardous Heaven for the nurses. Nurses comprise one category of employees who work in hospitals and are subjected to many occupational hazards. Some of these are very similar to those present in industrial environments, while others are peculiar for the nursing profession such as needle pricks, burns, back injuries, varicose vein, bacterial and viral infection, chemical and drug exposures as well as work stress¹. Backache has been considered recently a major health problem among nurses². However, in half of all nurses who suffered from backache it was thought to be due to lifting or nursing the patient in bed³. Harber⁴ found in his study that 52% of nurses developed backache because of their work, while Arad⁵ had stated that 87% of the nurses had one or more episodes of low backache in their life time of work. In the United Kingdom there were over three quarters of a million working days lost among nurses because of backache every year⁶. However, several factors could have an effect on the existence of backache such as age⁷, sex⁸, height⁹ and weight¹⁰, duration of employment⁸ and occupational environment¹¹.

On reviewing the Iraqi literature we could not find any study on backache among Iraqi nurses, although Al-Rawi et. al.¹² has found no appreciable difference in rheumatoid arthritis between the seven occupation groups studied from population sample in Iraq, so the present study was carried out to find the prevalence of backache among a group of nurses of Baghdad City who can fairly be said to represent the Iraqi nurses.

MATERIAL AND METHODS:

Two groups of people were studied. Group one (GI) represents a random sample of nurses (560 nurses) who were selected from the total 1467 Iraq nurses working in Baghdad City State Hospitals (27 State Hospitals). Group two (GII) represents a random of women selected from the general population. Those were 560 women attending the out-patient department of the medical city for reason not related to backache (control group).

Backache was recorded as positive only if the nurses or the women confirmed that the diagnosis was made through clinical and radiological examination and was treated by medications. The two groups were interviewed and has answered

red the questionnaire which was designed to fulfill the aim of the study. weight and height of nurses and women who reported backache were measured. The scale was standardized by five K.g. and the height was measured without shoes with the heels close to the wall.

Note : 1- Non-Iraqi nurses were excluded as they were few in number.

2- The 560 nurses represent 95.6% of the nurses who accepted to participate in the study.

3- A large number of women from the general population refused to Participate because of shortage of time.

4- Over or under weight was decided according to a list obtained from the Institute of Nutritional Research Centre-Ministry of Health-Iraq.

5- The Chi-square statistical test was used as a test of significance and the result was considered significant when P was less than 0.05.

6- Out of 560 nurses, 458 were graduates of the school of nursing. The others were midwives, technical and professional nurses.

RESULTS:

Out of 560 nurses studied, 298 nurses reported backache, a prevalence of 53.2% while out of 560 women studied 205 women reported backache a prevalence of 36.6%. The difference was statistically significant. The mean age for GI was 30 ± 11.9 years and for GII was 31 ± 7.6 years and the mean age for those having backache in GI was 34 ± 9.2 years and in GII was 36 ± 8.2 years. The prevalence of backache among the two groups is shown in Table 1 by age groups.

Table 1. Prevalence of backache (BA) among GI, GII by age groups.

Age Group (years)	Total	GI with BA	Prev.	Total	GI with BA	Prev.
<24	183	62	33.9	125	13	10.4
25-29	98	46	46.9	145	33	22.8
30-34	107	60	56.1	128	47	36.7
35-39	78	58	74.4	90	52	57.8
40-44	45	32	71.1	39	30	76.9
45+	49	40	81.6	33	30	90.1
Total	560	298	53.3	560	205	36.6

For GI
 $X^2 = 55.8$
 d.f. = 5
 $P < 0.005$

For GII
 $X^2 = 31.1$
 d.f. = 5
 $P < 0.05$

Table 2 by years of employment, Table 3 by types of wards for GI only and Table 4 by weight.

Table 2. Prevalence (Prev) of backache (BA) among GI, by years of employment.

Years of employment	Total	GI with BA	Prev.
- 5	176	56	31.8
5- 9	100	48	48.0
10-14	83	42	50.6
15-19	114	74	64.9
20+	87	78	89.7
Total	560	298	53.3

$X^2 = 68.38$ d.f. = 4 $P < 0.005$

Table 3. Prevalence (Prev) of Backache (BA) among GI, by Types of Ward

Ward	Total	GI with BA	Prev.
Pediatric	99	44	44.4
Medical	106	49	46.2
Surgical	210	106	50.5
Operator rooms	105	71	67.6
Total	520	270	51.9
Others*	40	28	70.0
Grand total	560	298	53.3

$X^2 = 9.0$ d.f. = 3 $P < 0.05$

* not included in the test of significance

Table 4. Weight groups of GI, GII with backache as number and percentage.

Weight group	GI		Backache	
	No.	%	No.	%
Under weight	16	5.4	17	8.3
Normal weight	126	42.3	85	41.5
Over weight	156	52.3	103	50.3
Total	298	100	205	100

$X^2 = 109.5$ d.f. = 2 $P < 0.005$

DISCUSSION:

The results show that the prevalence of backache among GI was statistically significantly different ($P < 0.001$) in relation to GII (Table 1).

Results of questionnaire show that 67.7% of GI who complained of backache were under medical treatment and 18% were under physiotherapy, while the remaining 14.3% received no treatment at the time of questionnaire. The prevalence of backache among both groups increased as age progressed (Table 1). This result is in agreement with Dehlin study¹³. The difference in the prevalence among different age groups in both GI and GII was statistically significant ($P < 0.001$). The prevalence of backache was higher in GI in comparison to GII in each age groups except after the age of 40 years. This could be due to physiological changes that take place as a person gets older (Table 1). The prevalence of backache among GI increased as the years of employment increased (Table 2), the difference was statistically significant ($P < 0.001$). Cust⁸ found in his study the highest prevalence of backache among nurses during their early years of service and he related that to their work, however, several factors may be involved. The study reveals that the highest prevalence of backache in GI was among nurses working in the operating theatre rooms while the lowest was among those who worked in pediatric wards (Table 3). The difference was statistically significant ($P < 0.05$). This could be due to the nature of work as the mothers accompany their children in the pediatric wards to take care of them, while in the other wards nurses perform many tasks and various duties. However, Cust⁸ has found that the highest prevalence of backpain was among the nurses who work in geriatric ward, while Harber⁴ found it among the nurses who work in theatre room.

This study shows the highest prevalence of backache in GI and GII among those who were over weight and lowest among those who were under weight (Table 4), the difference was statistically significant ($P < 0.05$), these results were in agreement of other studies^{5,14}.

In conclusion, the prevalence of backache among Iraqi nurses was higher than among the general Iraqi women population. The implication of occupational health and safety regulations at work will prevent the occupational hazards in general and reduce the prevalence of backache in particular.

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