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RESEARCH ARTICLE

PREVALENCE OF BACK PAIN AMONG OPERATION ROOM STAFF IN RIYADH CITY, SAUDI ARABIA.

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Abstract

This study aims to investigate the prevalence rate of back pain among the operation room staff in Riyadh city hospitals, Kingdom of Saudi Arabia. Study sample was composed of 157 randomly selected participants from Riyadh city hospitals. Results indicated that there is a high prevalence rate (66.9%) among operation room staff. Study instrument included the utilization of a predesigned questionnaire to explore participants' history and Attitudes of back pain. Moreover, findings have showed that back pain significantly affects the work life. Respondents had indicated that 'Rest' is the best back pain reliever compared to other suggested methods such as receiving a diagnosis and using treatment. Finally, study output had revealed that the prevalence rate is more dominant among male participants, and those who range in age between 25 to 35 years. Besides to the noticeable higher prevalence rate among married individuals. Study concluded that back pain has a clear impact on performing work duties and urgent response should be taken to limit further complications among operation room staff.

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Introduction:-

Pain is considered as an unpleasant emotional phase that the human could feel due to a specific problem in the body. In science, pain could be a defense mechanism to warn the human to perform further steps in order to avoid the development of more serious complications (Good and Brodwin, 1994).

Back pain is a common problem affecting a large number of people at a specific point in their life. It could be resulted from the bad posture while practicing the normal daily activities. Studies have indicated that between 30 to 40% of people are suffering of back pain in the world. While 80% to 90% have suffered from back pain for at least once in their life (Perdomo *et al.*, 2015).

Healthcare workers are generally characterized of being exposed to a high work load that requires physical efforts, the matter that will increase the chance of back pain development among them, especially the operation room staff, where they are required to exert great efforts including standing for long time periods (Andersen *et al.*, 2015).

Cuninham *et al.* (2006) had reported that back pain is a common cause of morbidity among healthcare workers. Moreover, Cesena *et al.* (1998) had indicated that the medical hazards in the hospitals include back pain resulting

from manual lifting, which exposes the working nurses to a high effect of back pain and further unpleasant complications.

It has been observed that individuals suffering from back pain could develop several future complications, such as the physical, social and mental complications. The impact of physical complications may involve the decline in the physical functionality and general health deterioration. On the other hand, social complications may include significant decrease in the participation in the social events and activities. Furthermore, Individuals with back pain could suffer specific psychosocial complications, such as Insomnia, anxiety and depression (Van Tulder *et al.* ,2006).

Objectives of the study:-

Current study aims to investigate the prevalence rate of back pain among operation room staff in Riyadh city hospitals, Kingdom of Saudi Arabia

Materials and methods:-

A cross sectional study was conducted on 157 health care workers in the operation room in Riyadh city hospitals, KSA. Subjects were identified using random sampling and data was collected using an online published questionnaire.

Data was coded and exported to Statistical Package for Social Sciences (SPSS v 20.0 IBM Corporation) for statistical analysis.

Descriptive analysis was for socio-demographic variables and participants' responses. Finally, data was presented with explanatory statements, tables and graphs.

Study sample:-

Current study sample was composed of 157 healthcare workers, working in the operation room in the hospitals of Riyadh city, Kingdom of Saudi Arabia.

Data collection and processing:-

Collected data set was checked manually for its completeness, and then data was coded and exported to SPSS

Study tool:-

Researchers had developed a study instrument to investigate the prevalence of back pain among operation room staff in Riyadh city hospitals. The instrument included questions regarding the demographic data of the participants, In addition to a set of questions exploring the participants' history of the back pain and respondents' views of back pain impact.

Questionnaire items reliability was achieved by consulting three medical specialists. Then, questionnaire items consistency was checked by calculating Alpha Cronbach's coefficient (0.83), which indicated the validity of the study instrument to achieve the study objectives.

Ethical considerations:-

1. Permissions to collect data had been obtained from the responsible authorities.
2. Confidentiality of the study participants' data and responses are maintained even after the study is performed.
3. Participants were notified that it is voluntary to participate, and that all study data will be used for research purposes.

Results and Discussion:-

Demographic characteristics of the study participants:-

Study findings regarding participants' demographic characteristics had indicated that about two thirds of the study sample were ranging in age between 25 to 35 (65%) , while the next category was those who exceeded 35 years old , and constituted 33.1% . the least represented category was participants who were less than 25 years (1.9%) .

According to gender factor, it's clearly that there is dominance for males over females. Male participants had constituted 74.5% of the total study sample, while females were 25.5%.

Respondents were distributed according to the marital status, results showed that 61.8% of the participants were married, while 38.2% were single.

Body Mass Index (BMI) results had revealed that there was a close representation of the normal and overweight categories. They had constituted 38.9% and 36.3%, respectively.

Obese participants' category was ranked thirdly by a percentage of 21%.while the lowest represented category was the underweight participants (3.8%).

Participants were distributed according to their work experience years. 46.5% of them responded as having one to five years of working experience, followed by participants who had more than 10 years of working experience which constituted 28%. Finally, those who's their experience years ranged from 6 to 10 years (25.5%).

Finally, study participants were distributed according to their specialty. Surgeons were the highest represented category and constituted 93.6%. Other categories were low represented category (See Table 1).

Table 1:-Demographic characteristics of the study participants.

Variable	Category	Frequency	Percentage
Age	Less than 25	3	1.9%
	25 – 35	102	65%
	More than 35	52	33.1%
Gender	Male	117	74.5%
	Female	40	25.5%
Marital status	Married	97	61.8%
	Single	60	38.2%
Body Mass Index	Underweight	6	3.8%
	Normal	61	38.9%
	Overweight	57	36.3%
	Obese	33	21%
Work experience	1 – 5 years	73	46.5%
	6 – 10 years	40	25.5%
	More than 10 years	44	28%
Specialty	Anesthesiologist	5	3.2%
	Nurse	2	1.3%
	Surgeon	147	93.6%
	Other	3	1.9%

Study sample distribution regarding back pain history:-

It is obvious from the results harvested in the current study, regarding the back pain history of the study participants that 66.9% of the study participants are suffering from back pain. These results indicate that the general prevalence rate of back pain among operation room staff is 66.9%, which is a high prevalence rate.

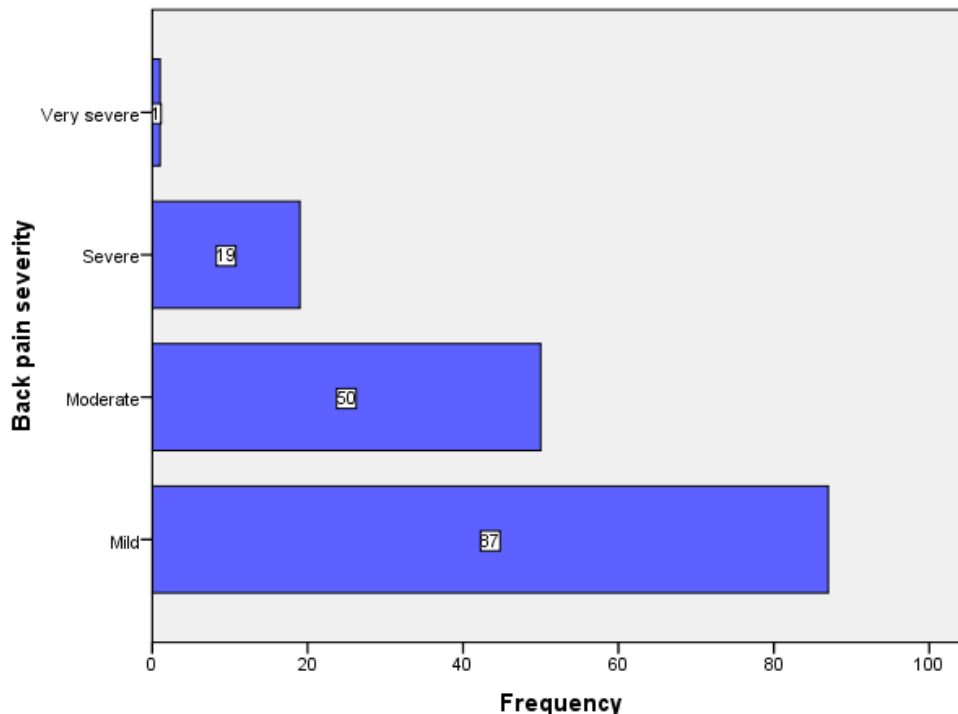
Going more in depth, participants were surveyed regarding the occurrence of first back pain. Majority of the participants (77.1%) reported that the first back pain occurred after joining the operation room staff, while 22.9% reported that they had suffered from back pain before joining the operation room staff.

Moreover, about two thirds of the study participants showed that they did not seek any medical care, while 17.8% had indicated that they could receive a diagnosis. Rest of the participants had reported that they used a treatment (15.9%) (See Table 2)

When exploring the severity of the back pain among the study participants, it could be clear from the study findings that 55.4% had a mild back pain, while 31.8% had moderate back pain. Severe back pain was common among 12.1%, and very severe back pain was rare, 0.6% was having that (Figure 1)

Item	Frequency	Percentage
Do you suffer from back pain		
Yes	105	66.9%
No	52	33.1%
First back pain		
After joining operation room staff	121	77.1%
Before joining operation room staff	36	22.9%
Sought medical care		
Received a diagnosis	28	17.8%
Used a treatment	25	15.9%
No	104	66.2%
Back pain severity		
Mild	87	55.4%
Moderate	50	31.8%
severe	19	12.1%
Very severe	1	0.6%

Figure (1) : Back pain severity among study participants



Study sample distribution according to their attitudes towards back pain:-

Findings had revealed that there was an equal agreement and disagreement regarding the impact of back pain on daily life activities. 51% responded positively that back pain affects the daily activities, while 49% had responded negatively.

On the other hand, there was a slight more positive response regarding the impact of back pain on working life. 56.7% indicated that back pain affects the work life, while 43.3% responded negatively.

Respondents were investigated regarding the best back pain reliever. Findings showed that 'Rest' was the highly reported method to relieve the back pain (77.7%), followed by 'Physiotherapy' (10.8%). Medication and Herbs had been reported as well to be back pain relievers, but in a low representation, they got 5.1% and 0.6%, respectively.

Other relief methods had been reported by 5.7% of the respondents. These methods could include sport and practicing physical exercises, following specific dietary behaviors, or using water bath to reduce back pain (Table 3)

Table 3:-Study sample distribution according to attitudes towards back pain.

Item	Frequency	Percentage
Back pain has an impact on daily life activities		
Yes	80	51%
No	77	49%
Back pain has an impact on work life		
Yes	89	56.7%
No	68	43.3%
Best back pain reliever		
Herbs	1	0.6%
Medication	8	5.1%
Physiotherapy	17	10.8%
Rest	122	77.7%
Other	9	5.7%

Results regarding the prevalence of back pain among operation room staff:-

Results shown in table (3) show the prevalence rate of back pain among operation room staff in regard to the demographic characteristics.

Findings indicated that 61% of the participants suffering from back pain are married, while single participants constituted 39% of the total study sample.

Results regarding the work experience years indicated that the highest prevalence rate of back pain was among those who ranged in experience between one to five years (48.6%), while the prevalence rate among participants having 6 to 10 years of experience was 27.6%, and those who exceeded 10 years of experience constituted 23.8% .

Investigation of age categories regarding suffering from back pain showed that 70.5% of the respondents suffering from back pain were ranging in age from 25 to 35 years (Figure 2), while 28.6% were older than 35 years. 1% of the respondents suffering from back pain were younger than 25 years.

There is a dominance of male participants in the participants suffering from back pain, they have constituted 70.5%, while females were 29.5%. Moreover, Normal weight and overweight participants had constituted 40.0% and 36.2% of the participants suffering from back pain, respectively.

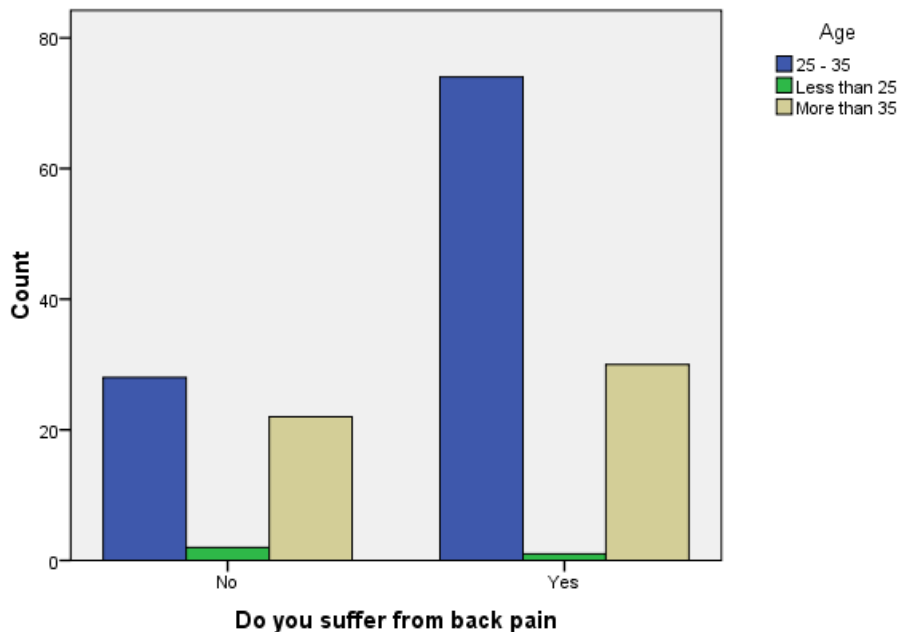
Finally, the majority of the participants suffering from back pain was surgeons, and constituted 94.3%. Other specialties were 1.9% each. (See table 4)

Table 4:-Prevalence of back pain among operation room staff according to their demographic characteristics

Categories	Yes(% within Do you suffer from back pain)	Yes (% within Category)
Gender		
Male	70.5%	63.2%
Female	29.5%	77.5%
Age		
Less than 25	1%	33.3%
25 – 35	70.5%	72.5%
More than 35	28.6%	57.7%
Work experience		
1 – 5 years	48.6%	69.9%
6 – 10 years	27.6%	72.5%

More than 10 years	23.8%	56.8%
Marital status		
Married	61%	66%
Single	39%	68.3%
Specialty		
Anesthesiologist	1.9%	40%
Nurse	1.9%	100%
Surgeon	94.3%	67.3%
Other	1.9%	66.7%
Body Mass Index (BMI)		
Underweight	4.8%	83.3%
Normal	40%	68.9%
Overweight	36.2%	66.7%
Obese	19%	60.6%

Figure (2) : Back pain occurrence prevalence to participants age categories



Conclusion:-

Current study aimed to investigate the prevalence rate of back pain among operation room staff in Riyadh city hospitals, Kingdom of Saudi Arabia. Findings of the current study had indicated that there is equality in study sample views regarding the impact of back pain on the daily life activities, but there is a much more agreement among the study participants that back pain have an impact on work life. Furthermore, results showed that resting is the best back pain reliever as stated by the study participants.

The major finding of this study is that there was an overall prevalence rate of back pain among operation room staff equals to 66.9%. In details, study results regarding prevalence rate of back pain, considering the study participants demographic characteristics, showed that back pain is more prevalent in respondents ranging in age between 25 to 35 years old as well as among males more than females.

Moreover, the prevalence rate was higher in respondents having 1 to 5 years of working experience, and those classified within the normal weight category of the BMI measurements.

Finally, there is a significant dominance of surgeons in term of suffering from back pain, compared to other operation room staff members.

References:-

1. Andersen, L. L., Clausen, T., Mortensen, O. S., Burr, H., & Holtermann, A. (2012). A prospective cohort study on musculoskeletal risk factors for long-term sickness absence among healthcare workers in eldercare. *International archives of occupational and environmental health*, 85(6), 615-622.
2. Cesana G, Arduca A, Latocca R, Sirtori G. Risk evaluation and health surveillance in hospitals: A critical review and contribution regarding experience obtained at GarardodeiTintori Hospital in Monza. *Med-Lav*.1998;89(1):23-46.
3. Cunninham C, Flynn T, Blake C. Low back pain and occupation among irish health service workers. *Occupational Medicine*. 2006;56(7):447-454.
4. Good, M. J. D., & Brodwin, P. E. (1994). *Pain as human experience: An anthropological perspective* (No. 31). Univ of California Press.
5. Perdomo, A. D., Tomé-Bermejo, F., Piñera, A. R., & Alvarez, L. (2015). Misdiagnosis of sacral stress fracture: an underestimated cause of low back pain in pregnancy?. *The American journal of case reports*, 16, 60.
6. Van Tulder, M., Becker, A., Bekkering, T., Breen, A., Gil del Real, M. T., Hutchinson, A., ... & Malmivaara, A. (2006). Chapter 3 European guidelines for the management of acute nonspecific low back pain in primary care. *European spine journal*, 15, s169-s191.