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(RESEARCH ARTICLE)

Assessment nurses' knowledge in Basra city hospitals regarding lower back pain and it`s physical therapy

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Abstract

Background: Low back pain is a very common health problem amongst population and a major cause of disability that affects work performances and well-being. It is can be acute, sub-acute or chronic. It is affects all ages of the population and is the most common reason for medical consultations.

The main aims of study: To assessment the level of nurses` knowledge of lower back pain exercises, to identify the difference between nurse`s knowledge level in lower back pain exercise according to demography variables and knowing the percentage of nurses who pass and not pass regarding lower back pain and it`s exercises.

Methodology: This study included a sample of (60) nurses, (26) males and (34) females, this study was conducted on the nursing staff in various hospitals.

The questionnaire was used to collect the required information and it is composed of (24) questions about lower back pain and it`s exercises in different cases, regarding the score (I strong agree=2, I agree=1, I don't agree=0) where total scores=48 and also include variables (level of education, and years of experiences). And use the statistical program (spss) to analyze the results. The data were analyzed using the Statistical Package for Social Sciences (SPSS), version 26.

Conclusions

- More than half of the sample they got (16 to 31) score was having medium level of knowledge.
- Sample study got (83 %) pass regarding information of lower back pain domain and sample study got (72 %) pass regarding exercise domain of lower back pain.

Recommendations

- Add physiotherapy in the curricula of health institutes and colleges of nursing.
- Give training courses for nurses who working at hospital in another unites about how deal with lower back pain and it`s exercises

Keywords: LBL; ABS; NHS; EMG; DALYS; GBD

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1. Introduction

Low back pain (LBP) or lumbago is a common disorder involving the muscles, nerves, and bones of the back Pain can vary from a dull constant ache to a sudden sharp feeling [1] .Low back pain may be classified by duration as acute ,sub-acute and chronic [2]. The symptoms of low back pain usually improve within a few weeks from the time they start, with 40–90% of people completely better by six weeks [3].

In most episodes of low back pain, a specific underlying cause is not identified or even looked for, with the pain believed to be due to mechanical problems such as muscle or joint strain [1] [4]..Some low back pain caused by damaged intervertebral discs, and the "straight leg raise" test is useful to identify this cause [5].In those with chronic pain, the pain processing may causing large amounts of pain in response to non-serious events [6].

Approximately 9–12% of people (632 million) have LBP at any given point in time, and nearly 25% report having it at some point over any one-month period [7] [8]. About 40% of people have LBP at some point in their lives [7]. with estimates as high as 80% among people in the developed world [9]. Difficulty most often begins between 20 and 40 years of age[4]. Men and women are equally affected [1]. Low back pain is more common among people aged between 40 and 80 years, with the overall number of individuals affected expected to increase as the population ages. [7]. Teachers are the main caregivers and the first line of protection for school children. Their role complements that of parents. During school hours, school teachers are actually the first-respondent in cases of disasters or emergencies. They must be able to deal properly with health emergencies both in normal children, and those children with special health care needs [10].

2. Material and methods

A descriptive cross-sectional study was carried out on the nursing teams to determine and evaluate nurses' knowledge about lower back pain exercise in Basra hospitals, this study started from 19 January 2021 to **16** April 2021.

The sample of the study consists (60) nurses at Basra hospitals, (34) female and (26) male, they were having different levels of education, secondary school nurse, diploma and collage of nursing and all them in current service. the project questionnaire format determined by (24) items to assessment Knowledge of nurses in lower back pain exercises. Also include variables (Name of the hospital, Sex, Age, Marital status, Years of service, Years working as physiotherapy, Academic achievement). Questionnaire was distributed to (60) of nurses, all of them with at least one year of experience. All participant answered about (24) question through direct interview and electronic, and then we collected the score according to the right typical answer. The score for the items was as follow (I strong agree =2, I agree =1, I do not agree=0) where the total score = 48.

2.1. Rating and scoring of the study questionnaire

A scale of three (3) points, which ranged from zero (0) to two (2) about Knowledge of nurses in lower back pain and its physiotherapy, as shown in the following:

Table 1 Scoring of the study questionnaire

Domain	Items	I do not agree	Agree	Strong agree	Pass score	Not Pass	Total score
Information	12	0	1	2	12 - 24	0 – 11	24
Exercise therapy	12	0	1	2	12 - 24	0 – 11	24
Total	24	0	1	2	24 - 48	0 – 23	48

Score of questionnaire, (items = 24)

2.2. Evaluation of Questionnaire

Study questionnaire includes thirty (24) items each item has three score (0,1, 2) According to the sample answers, where total score (48) When all answers are correct, Table 2 describe assessment levels with its Range Score for Evaluation of sample.

Table 2 Assessment of Questionnaire score

Ass. levels	Range Score
Poor	0 – 15
Medium	16 – 31
Good	32 – 48

Table 2 show the summary assessment of question answers was the poor level (0-15), medium level (16-31) and good level (32-48).

Data were analyzed through the use of SPSS application version 26. Descriptive data analysis including Percentage, Arithmetic mean, with their Standard Deviation (S.D), and frequency (f). Inferential data analysis includes the T-test for paired samples, One-way analysis of variance (one-way ANOVA).

2.3. Distribution of the Variables Related Demographic Characteristics, N=60 nursing staff

Table 3 Descriptive statistics of Demographic Variables

Demographic Variables	Variables Classes	F	Percent
Gender	Male	26	43 %
	Female	34	57 %
	Total	60	100 %
Age	22 – 30	23	38 %
	31 – 39	18	30 %
	40 – 48	10	17 %
	49 – 58	9	15 %
	Total	60	100 %
Marital status	Single	12	20 %
	Married	48	80 %
	Total	60	100 %
Education level	High school	17	28 %
	diploma	35	58 %
	College	8	13 %
	Total	60	100 %
physiotherapy	Work	32	47 %
	No work	28	43 %
	Total	60	100 %
Years of experience	1 – 10	28	47 %
	11 – 20	19	32 %
	21 – 30	9	15 %
	31 – 40	4	7 %
	Total	60	100 %

Table 3 indicate that female was more than males, the age between (31-39) years mostly in the study, most of the sample was 80% of were married, 58% of them had Education level was diploma, regarding physiotherapy was 47%, most of the study sample were Years of experience between (1-10) of the study sample**.**

2.4. Results assessment knowledge of nurses in lower back pain and its physiotherapy (N=60 nursing staff)

Table 4 Nursing staff's knowledge toward lower back pain and its physiotherapy

Nursing staff's knowledge									
Ass. Levels	F	%	Scale	Mean	Sd	Total			
						Ass.	ANOVA	P - value	Sig.
Poor	3	5 %	0 – 15	13.00	3.46	Medium	107.28	0.00	S
Medium	35	58 %	16 – 31	25.06	3.43				
Good	22	37 %	32 – 48	36.14	3.21				
Sum	60	7.203		28.52	7.20				

Table 4 display descriptive statistics of Comparison of Nursing Staff's knowledge via ANOVA test. Poor level mean was (13.00), Sd was (3.46). Medium level mean was (25.06), Sd was (3.43). Good level mean was (36.14), Sd (7.20).

Based on the previous table, it was shown that the highest level was medium and significant result that shows the level of knowledge of nurses of lower back pain and physiotherapy.
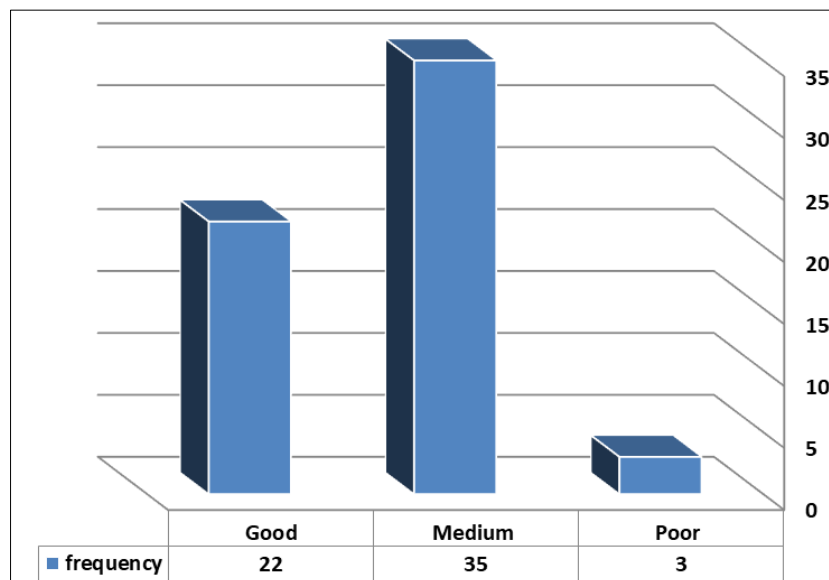

	Good	Medium	Poor
■ frequency	22	35	3

Figure 1 Assessment of Nursing staff's knowledge

Table (4.2.2) displays pass and not pass for domain of questionnaire. Regarding information domain, the percent of pass was (83%). The percent of not pass was (I7%). this means that the information Domain is (high). Regarding exercise domain the percent of pass was (72%), the percent of not pass was (28%). this is mean that the exercise domain is (high).

Table 5 Pass and not pass for domains of the questionnaire (Information Domain & Exercise Domain)

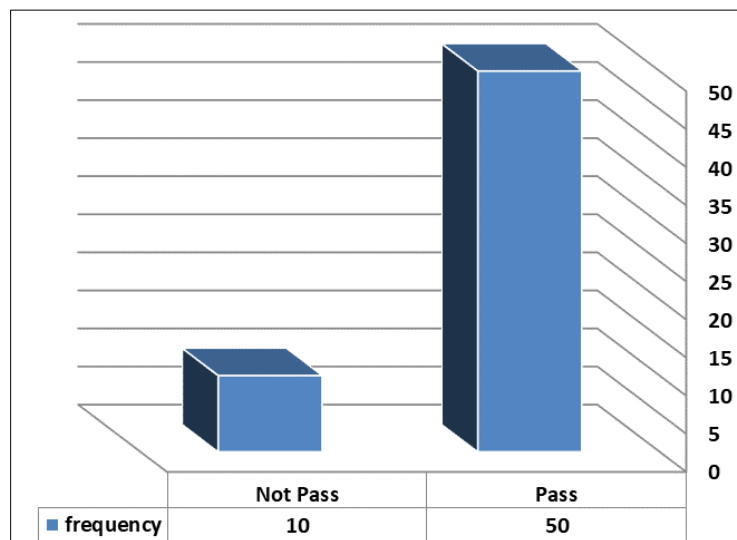| Information Domain			Significant				
Statistics	N	%	Mean	Sd	T – test	P – value	Sig.
Pass	50	83 %			2.5	0.015	S
Not Pass	10	17 %	14.82	3.62			
Total	60	100 %					
Exercise Domain							
Pass	43	72 %					
Not Pass	17	28 %	13.70	4.33			
Total	60	100 %					

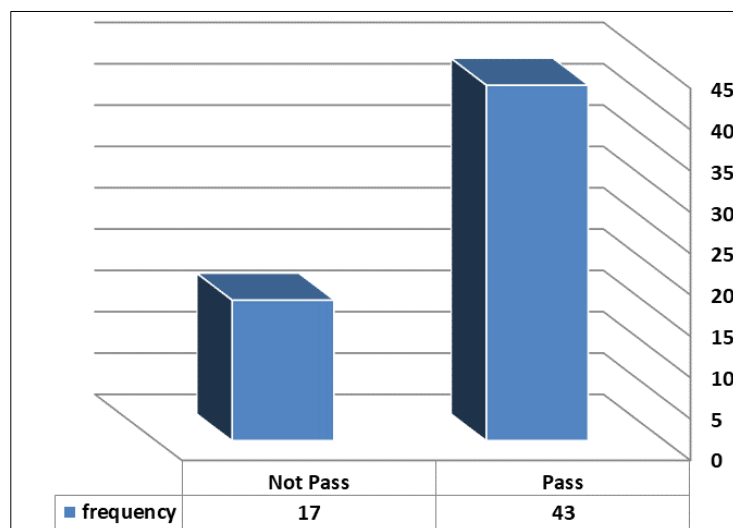**Figure 2 a** Pass and not pass for Information Domain

Figure 2 b Pass and not pass for Exercise Domain

3. Results and Discussion

3.1. Part one

Discussion of statistics of demographic variables (table 1)

3.1.1. Gender

The majority (57%) of participants (nurses) were female.

3.1.2. Age

Percentage of the sample are (38%) within the age group of (22-29) years.

3.1.3. Educational level of staff

The majority (58%) of sample were diploma, followed by high school and college.

3.1.4. Marital status of staff

There are most participants in each of our married (80%).

3.1.5. Year of experience

Results were about (47%) of participants in the study have been experienced years between (1-10), and (32%) of participants were (11- 20), another hand (7%) of participants were (31-40).

3.2. Part two

Discussion result assessment level of nursing staff's knowledge toward lower back pain and its physiotherapy questions.

Most of the nurses' knowledge of low back pain was Medium and good, it`s significant as shown in the Table 4, and these results are consistent with (Mahfoudh Falih and Malak Aubaid 2019) in assessment the nurses' knowledge of physical therapy techniques

Accordingly, we believe that there is a need to add physical therapy curricula in nursing colleges for the purpose of raising the educational and applied level of nurses in the methods and means of physical therapy (8).

The findings show nurses answers in the questions about information of lower back pain is more and better than their answers about information in lower back pain exercises and it`s significant as shown in the table 4, these results came due to the scientific background and good practice that the nurses possess as a result of the widespread prevalence of lower back pain, which is a very common problem. (As part of the global burden of disease (GBD) 2010 study, the expert team showed that lower back pain is among the top ten high burden diseases and injuries, with the average number of disability-adjusted life years (DALYS) higher than HIV, road injuries, tuberculosis, lung cancer, chronic obstructive pulmonary disease, and complications of preterm labor) (9).

4. Conclusion

- The percentage of nurse's participants in the study who work in the physiotherapy was (47%), female makeup (57 %) of the study.
- More than half of the sample they got (16 to 30) score was having medium level of knowledge toward lower back pain and it`s physiotherapy.
- Sample study got (83 %) pass regarding information of lower back pain domain.
- Sample got (72%) pass regarding exercise domain of lower back pain.
- There is no significant relationship between demographic variables and nurse's knowledge about physiotherapy.

Recommendations

- Add physiotherapy in the curricula of health institutes and colleges of nursing.
- Give training courses for nurses who working at hospital in another unites about how to deal with lower back pain and it`s physiotherapy.
- Increase awareness of community about the importance of physiotherapy in their life especially about lower back pain exercises.
- Increase the number of physiotherapy centers and preparation with adequate and modern devices.

Compliance with ethical standards

Acknowledgments

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Disclosure of conflict of interest

No conflict of interest.

Statement of ethical approval

The approval has been taken from the College of Nursing, University of Basra, and there is no problem with the approval.

Statement of informed consent

Informed consent was obtained from all individual participants included in the study.

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