

Assessment of physical Domain for patients with angina pectoris

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الخلاصة:

الهدف: تقييم الجانب الجسمي للمرضى المصابين بالذبحة الصدرية.

المنهجية: أجريت دراسة وصفية للفترة من ١٥ آذار الى ١٥ حزيران ٢٠١٢ لتقييم الحالة الجسمية للمرضى المصابين بالذبحة الصدرية. تتكون العينة العرضية من (٥٠) مريض مصاب بالذبحة الصدرية، اختيروا من (٤) مستشفيات في بغداد جمعت في الوحدات القلبية. صممت الاستمارة الاستبائية لغرض الدراسة، التي تتكون من اربع اجزاء رئيسية تحتوي على (٢٤) فقرة. تم تحليل المعلومات من خلال اسلوب الاحصاء الوصفي (التكرار، النسب المئوية، المتوسط) والاحصاء التحليلي عن طريق مربع كاي.

النتائج: أظهرت نتائج الدراسة ان هناك علاقة ذات دلالة إحصائية بين الجنس والحالة الجسمية والعمر. نتيجة لذلك اشارت النتائج بأن الاشخاص الذين لديهم ذبحة صدرية هم من كبار السن وبصورة رئيسية من الذكور.

التوصيات: اوصت الدراسة بتصميم برنامج تعليمي صحي لزيادة معلومات المواطنين باتجاه المرضى وتقليل مخاطر الذبحة الصدرية.

Abstract:

Objective: To assess the physical domain for patients with angina pectoris (activity daily living).

Methodology: A descriptive study was carried out, from March 15th 2008 to June 2008, to assess physical domain for patients with angina pectoris. A purposive sample of (50) patients with angina pectoris was selected out of four coronary care units hospital in Baghdad in coronary care units. A questionnaire was adapted for purpose of the study, which comprised of four major parts in which there were (24) items. The data were analyzed by through the use of descriptive statistical approach data analysis (frequency, percentage, mean of scores) and inferential statistical data analysis approach (chi-square).

Results: The findings of the study indicated that there was relationship between sex and physical domains and their age. In conclusion, the results indicated that individuals with angina pectoris were old age group and the majorities were males.

Recommendation: The study recommended that an education program should be designed to increase individuals' information toward disease prevention and to reduce the risk of angina pectoris.

Key words: Assessment, Physical Domains, Angina Pectoris.

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Introduction

Angina is one of the serious causes of chest pain. “Angina” is an abbreviation of angina pectoris, a Latin term for “squeezing of the chest.” Chest pain is a common symptom caused by many different conditions. Some causes require prompt medical attention, such as angina, heart attack, blood clots in the lungs, or tearing of the aorta. Other causes of chest pain that may not require immediate medical intervention include spasm of the esophagus, gallbladder attack, or inflammation of the chest wall. An accurate diagnosis is important in providing proper treatment to patients with chest pain or acute coronary syndrome. ^(1,3,5).

The severity of angina based on the precipitating activity and its effect on the activities of daily living. ^(2, 4).

Angina is usually caused by atherosclerotic disease. Angina is associated with a significant obstruction of major coronary artery. Identifying angina requires obtaining a through history. Effective treatment obtaining with reducing the demands placed on the heart and teaching the patient about the condition. ^(4, 5)

Typical angina is discomfort or pain usually felt in the chest , that comes from the heart muscle. Normally feel it as tightness, heaviness, weight, pressure or some similar feeling. It may also speared to the throat, jaw, shoulder or back. Sometime also notice aching or tingling in arms or hands or breathlessness when you have angina. ^(3,6)

Methodology:

A descriptive study was carried out to assess the physical needs for patients with angina pectoris. The study was carried out during period of March 15th 2008 to June 15th 2008 at the coronary care units in Baghdad (hospitals which are surgical specialties hospital, Nursing Home, Ibn Al-Baitar center for cardiac surgery and Ibn Al-Nafees hospital).

Non probability (purposive) sample of (50) patient with angina pectoris these patient were selected according to the use matching technique which is appropriate method of such selection with respect to age and sex and according to the following criteria:

1. Patients who were diagnosed as angina pectoris ones .
2. Patient who were 20 years of age and older.
3. No other major illness, such as psychiatric problems.

For the purpose of the study, adapted questionnaire was by the researcher. Items in the questionnaire were determined through:

- 1.Extensive review of literature and studies.
- 2.The researcher background in the field.

The developed questionnaire consists of 2 parts:

Part I: Demographic data from such as sex, age, marital, status, education status, and occupation status.

Part II: This questionnaire is adopted of the **World Health Organization** questionnaire of angina pectoris patients physical domains. It is consisted 4 physical domains.

1. Pain and discomfort (5) items.
2. Energy and fatigue (5) items.
3. Sleep and rest (5) items.
4. Signs and symptoms (9) items.

The questionnaire was domain which comprised of rated on Likert Scale of responses as always, sometimes and never and scored as 3 for always, 2 for sometimes, and 1 for never. Content validity of questionnaire was determined through panel of (5) experts. These experts had reviewed the questionnaire and presented comments and suggestions relative to the revision of few items. Data were analyzed through the use of descriptive statistics (frequencies, percentage, mean of score) and inferential statistics (chi-square). All statistical procedures were tested on probability of $P < 0.05$ for significance and a cut of point for the mean of scores of 1.5.

(7)

Results:

Table (1): Distribution of Patients with Angina Pectoris Demographic Characteristics

Demographic characteristics	F	%
1. Sex		
Male	30	60
Female	20	40
Total	50	100
2. Age		
20 – 29	1	2
30 – 39	10	20
40 – 49	12	24
50 – 59	20	40
60 and more	7	14
Total	50	100
3. Educational status		
Unable to read and write	8	16
Read and write	10	20
Primary school	11	22
Intermediate school	5	10
Secondary school	5	10
Institute graduate	3	6
College graduate	6	12
Post graduate	2	4
Total	50	100
4. Marital status		
Single	2	4
Married	38	76
Divorced	1	2
Widowed	3	6
Separated	6	12
Total	50	100
5. Occupational status		
Governmental employer	14	28
Self - Employer	15	30
Retired	10	20

Un employer	2	4
House wife	9	18
Total	50	100

F = frequency %= percentage

This table indicated that the majority of the study sample was males (60%) and the remaining was females (40%) with age of 50 – 59 years. Only angina patients were with the age group of 20 – 29 years and accounted for (2%) of the whole. Relative to their education, the greater number of them was for primary school graduates and they accounted for (22%) of the sample while only (4%) of the sample was for post graduates. In regard to subjects marital status, the majority of the sample was married patients and they were accounted for (40%) of the whole sample. With respect to their occupation, prior to having angina disease, most of them were self employed and they accounted for (30%).

Table 2. Mean of scores of items for patient with angina by the physical domains (pain and discomfort).

Physical domains (pain and discomfort)	Always		Sometime		Never		Total		Mean score
	F	%	F	%	F	%	F	%	
1. I have pain when I do something.	15	30	25	50	10	20	50	100	1.40
2. I have pain when I walk for long periods of time.	18	36	20	40	12	24	50	100	1.58
3. I develop pain when I climb stairs.	22	44	22	44	6	12	50	100	2.08
4. I have discomfort without definite cause.	10	20	32	64	8	16	50	100	1.28
5. I have discomfort when I do pain occur.	40	80	9	18	1	2	50	100	2.98

F = frequency %= percentage

The finding of this table indicated that mean of scores of items for physical domains (pain and discomfort) was highly significant for item (5), significant for items (2, 3) and not significant for items (1, 4).

Table (3): Mean of scores of items physical domains (energy and fatigue).

Physical domains	Always	Sometime	Never	Total	Mean
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(energy and fatigue)	F	%	F	%	F	%	F	%	score
1. I have tired when I change clothes.	6	12	14	28	30	60	50	100	1.3
2. I feel tired during washing and bathing.	12	24	18	36	20	40	50	100	1.48
3. I have tired when I do any action that requires an effort.	40	80	8	16	2	4	50	100	2.98
4. I feel tired when I do domestic duties (if you were female)	13	26	23	46	14	28	50	100	1.58
5. I feel tired during eating	2	4	8	16	40	80	50	100	0.96

F = frequency %= percentage

This table shows that mean of scores for patient with angina by the physical domains (energy and fatigue) was highly significant on item (3) and significant on items (2, 4), and no significant on items (1, 5).

Table (4): Mean of scores of items physical domains (sleep and rest).

Physical domains (sleep and rest)	Always		Sometime		Never		Total		Mean score
	F	%	F	%	F	%	F	%	
1. I can not fall sleep easily.	24	48	20	40	6	12	50	100	1.96
2. I'm experiencing insomnia.	31	62	11	22	8	16	50	100	2.34
3. I feel that I need rest when I do usual daily duties.	39	78	9	18	2	4	50	100	2.90
4. I need rest between work.	30	60	2	4	18	36	50	100	2.40
5. I need rest when I go outside home.	22	44	24	48	4	8	50	100	1.80

F = frequency %= percentage

This table revealed mean of scores of items for patient with angina by the physical domains (sleep and rest) of highly significant in (3) item and significant in (1, 2, 4, 5) items.

Table (5): Mean of scores of items physical domains (signs and symptoms).

Physical domains (signs and symptoms)	Always		Sometimes		Never		Total		Mean score
	F	%	F	%	F	%	F	%	
1. Chest pain in the retrosternal area.	38	76	10	20	2	4	50	100	2.80
2. Increasing blood pressure.	22	44	22	44	6	12	50	100	1.98
3. Vertigo.	4	8	24	48	22	44	50	100	0.81
4. Headache.	7	14	18	36	25	50	50	100	0.90
5. Parasthesia, such as numbness and tingling.	31	62	14	28	5	10	50	100	2.60
6. Loss of weight.	8	16	12	24	30	60	50	100	1.1
7. Felling tired and weakness.	4	8	7	14	3	6	50	100	0.85
8. Leg edema.	17	34	13	26	20	40	50	100	1.70
9. Shortness of breathing.	41	82	6	12	3	6	50	100	2.98

This table presented mean of scores of items for patient with angina by the physical domains (signs and symptoms) of highly significant in (1, 5, 9) items and significant in (2, 8) items and no significant in (3, 4, 6, 7) items.

Table (6): Association between age and physical domains.

Age	20-29	30-39	40-49	50-59	60<	Total	Chi square	CS. P.V.
Physical domain	F	F	F	F	F			
Never	30	221	298	216	266	1076	22.597	0.002 (S)
Sometime	24	450	290	450	311	1525		
Always	52	519	460	496	613	2240		
Total	106	1190	1048	1307	1190	4682		

P < 0.05 F: Frequency df = 14

These results of the study indicated that with in the age group of (50 – 59) years. The sample were more effected at always level in the physical domains, further more the results indicated that there was significant relationship between physical domain ($X^2 = 22.597$, $P < 0.002$) and subjects age group.

Table (7): Relationship between the gender of the sample and the physical domains by the level of effect.

Gender	Male	Female	Total	Chi-square	CS. P.V.
Physical domains	F	F			
Never	667	571	1238	18.622	0.000 (S)
Sometime	790	613	1403		
Always	1175	866	2041		
Total	2632	1619	4682		

P< 0.05 F: Frequency df = 14

These results of the study revealed that male were more effected at always level than there was a significant relationship between physical domains ($X^2= 18.622$, $P< 0.000$).

Table (8): Relationship between level of education of the sample and the physical domains by the level of effect.

Level of education	Unable to read and write	Read and write	Primary school	Intermediate school	Secondary school	Institute graduate	College graduate	Post graduate	Total	Chi-square	CS. P.V.
Physical domains	F	F	F	F	F	F	F	F			
Never	122	102	142	96	96	72	93	23	750	79.27	0.000 (S)
Sometime	225	267	302	130	132	106	134	117	1413		
Always	466	327	457	286	287	196	291	211	2515		
Total	831	696	901	512	515	374	526	351	4682		

P< 0.05 F: Frequency df = 14

The finding of the study indicated that the angina patients. Who were primary school graduates, were more effected at always level in physical domains also, the table revealed that there were significant relationship between physical domains ($X^2= 79.27$, $P< 0.000$). and the subjects level of education.

Discussion of the results.

The physical aspect of life study of patients with angina were assessment in purposive sample of (50) angina pectoris patients.

Part I: Discussion of the sample demographic characteristics.

The findings of the present study showed that the majority of the sample were males (60%) with range of age (50-69) years (table 1), the result revealed that the majority of the samples (22%) were primary school graduates. Relative and their marital status most of them (40%) were married. This finding comes along with that the highest care on the quality of life study is marriage life of patients angina (65%). The result of present study indicated that (48%) of governmental employee.

Part II: Discussion of the physical domain patient's with angina.

The result revealed that two-third of the patients angina suffered from pain and discomfort at always and sometime (table 2) this result indicated that mean of scores of items for patients with angina by the physical domains (pain and discomfort) of highly significant in item (5) and significant in (2, 3) items. No significant in (1, 4) items. All items of mean of score were lower cut off point 1.5 except items (1, 4). These finding supported by (9) who reported that most persons with angina pectoris disease develop wide variety of chronic discomfort.

The regard to energy and fatigue the study results presented that the most angina patients fatigue (table 3). This table shows that mean of scores for patient with angina by the physical domains (energy and fatigue) was highly significant on item (3) and significant items (2, 4), and no significant on items (1, 5). All items of mean of score were under cut off point except items (3, 4). This finding revealed that the angina patients feeling fatigue whenever have had daily activity.

Concerning sleep and rest two-third of the angina patients exposed to sleep disorder (insomnia) at always and sometime level. The result showed that mean of scores of items for angina patients by the physical domains (sleep and rest) of highly significant in item (3) and significant (1, 2, 4, 5) items. All items of mean of score were lower cut off point 1.5. (table 4).

This disorder of sleep may be due to anxiety especially at night. That the insomnia may be due to problem inability to sleep at night makes the patient so tired and anxious (1, 3).

Two-thirds of angina patients complained from body symptoms related to any systems of the body at always and sometime level. Table (5) presented mean of scores of items for patient with angina by the physical domains (signs and symptoms) of highly significant in (1, 5, 9) items and significant in (2, 8) items and no significant in (3, 4, 6, 7) items depend on mean of scores were cut off point 1.5.

Part III: Discussion of the relationship between the physical domains and some demographic characteristics.

The analysis presented here illustrated the relationship between the physical domain and some demographic characteristic. In these analyses, the differences examined among the angina patients include those in age, gender and level of education. The result of the study showed that there was significant relationship between gender and physical domains at $P < 0.05$ (table 7). Male were more affected at always level than female in physical domain. This result agrees with the studies of physical domains in quality of life in patient with cardiac diseases have shown that male lower scores on different physical test than female. (8, 9, 10). The relationship between physical domains and age was found to be statistically significant and level ($P < 0.05$) especially for the age group domains effected at always level in physical between (50-59) were more. (table 6). Old age more effected on angina pectoris than younger (1, 10). Unfortunately, the study indicated that the angina patients, who were primary school graduates, were more effected at always level in physical domains also, the table revealed that there a were significant relationship between the physical domains. ($X^2 = 79.27$, $P < 0.000$) and subjects level of education. (table 8).

Conclusion:

According to the study result and their discussion it is concluded that:

1. The study showed that individuals with angina pectoris were old age group and the majority was male.
2. The majority of the sample were primary school graduates.

3. Most physical domains were affected at moderate level.
4. Energy and fatigue were affect severely.
5. Patient education affected their physical domains as a matter of fact angina patients with low level of education poor physical aspects as reported in the study.

Recommendations:

1. An education programs should be designed to increase people information toward disease and to reduce the risk of angina pectoris.
2. Specialist nurse for cardiac disease every centers.

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