NURSING ASSESSMENT OF PHYSICAL , PSYCHOLOGICAL AND SOCIAL PROBLEMS OF PATIENTS WHO UNDERGO CARDIAC SURGERY[+]

Sammera Abdul Ahad[*] *Mohanad Abdulla Al- Rouashda*[**]

Abstract

A descriptive study was carried out from October 1st , 2002 through August 29th , 2003 in order to conduct nursing assessment of physical , psychological and social problems of patients who undergo coronary artery bypass CABG or valve replacement VR surgery . non – probability (A purposive) sample of (50) patients who were scheduled foe CABG and VR surgeries , were selected at the preoperative stage , when they were admitted to Ibn Al Betar Hospital for Cardiac Surgery and Iraqi Center for Heart Diseases to undergo such surgery , a questionnaire was constructed for the purpose of the study , which comprised of 4 major parts of (92) items , reliability and validity of the questionnaire were determined through a pilot study . Data were collected through the use of the constructed questionnaire and the interview as means for data collection , data were analyzed through the application of descriptive statistical analysis (percent , frequencies , mean and global mean) and the inferential statistical analysis (person correlation , t – test and ANOVA) . the finding of the study indicates that there is a significant differeac between CABG and VR patients relative to physical , psychological and social problems .With CABG patients , physical problems had strong positive relationship with their psychological . ones , but moderately affected by the social ones , the study recommended that a preoperative cardiac surgery oriented educational program can be designed , constructed and presented to patients with these problems for the early detection and the reinforcement of patients coping with such problems .

المستخلص

أجريت دراسة وصفية من الاول من تشرين الاول٢٠٠٢ ولغاية التاسع والعشرين من آب ٢٠٠٣ وذلك للقيام بتقييم تمريضي للمشكلات الجسمية والنفسية والاجتماعية للمرضى الذين سيخضعون لجراحات ترقيع الشريان التاجي وتبديل الصمامات ، اختبرت عينة (عرضية) غير احتمالية من ٥٠ مريضاً ومريضة من اولئك الذين تمت جدولتهم لجراحات ترقيع الشريان التاجي او تبديل الصمامات و تم اختيار هؤلاء المرضى في مرحلة ما قبل العملية و عند دخولهم الى مستشفى ابن البيطار والمركز العراقي لامراض القلب للتعرض لهذه الجراحة . تم اعداد استمارة استبيانية لغرض الدراسة والتي تكونت من اربعة اجزاء مهمة من (٩٢) فقرة تم تحديد ثبات ومصداقية الاستمارة الاستبيانية من خلال الدراسة التجريبية . جمعت البيانات من خلال استخدام الاستمارة الاستبيانية المعدة والمقابلة كوسيلتين لجمع البيانات و تم تحليل البيانات من خلال تطبيق التحليل الاحصائي الوصفي (النسبة المئوية التكرارات الوسط الحسابي

[+] **Received on 13/7/2004 - Accepted on: 2/10/2005**

[*] **Asst. Prof /College of Nursing / University of Baghdad**

[**] **Facility nurses /College of Nursing / University of Baghdad**

والوسط الحسابي الاكبر) والتحليل الاحصائي الاستنتاجي (معامل بيرسن ومربع كاي والاختيار الثاني وتحليل التباين) اشارت نتائج الدراسة الى وجود الاختلافات ذات دلالة معنوية ما بين مرضى ترقيع الشريان التاجي ومرضى تبـــديل الصمامات بخصوص المشكلات الجسمية والنفسية والاجتماعية . المشكلات الجسمية لمرضى ترقيع الشريان التـــاجي كان لها علاقة قوية موجبة مع المشكلات النفسية . لكن كانت موجبة ضعيفة بالنسبة لمرضى تبديل الـــصمامات مـــن اولئك الخاضعين الى ترقيع الشريان التاجي . استنتجت الدراسة بان المشكلات الجسمية لمرضى ترقيع الشريان التاجي كانت ذات علاقة قوية بتلك النفسية وذات تاثير متوسط على الاجتماعية منها . اوصت الدراسة بتصميم وبناء وتقديم برنامج تثقيفي للمرضى اصحاب هذه المشكلات وذلك للوقوف عليها وتقديم الدعم لها للتكيف مع هذه المشكلات .

Introduction

Cardiovascular diseases continue to be leading causes of death and morbidity worldwide . it is not just a disease of the elderly ; forty five percent of all heart attacks occur in people under age 65 years , nor is cardiovascular diseare male one , more than half of all deaths from cardiovascular disease occur in females [1] .

Nurses who are working in cardiovascular units , must be responsible and highly competent to meet the demands of their profession [2] .

The role of the nurse in the preoperative stage in very important like developing a planning of care that includes emotional support , teaching of the patient, answering questions , listening to fear and concerns , clarifying misconception and providing information about what is to be expected [3]

.

Iraqi patients are facing various problems as a result of the unjustified embargo which has caused shortage of the drugs and medical supplies , the researcher believes that Iraqi nursing studies on this are not available and there is a need to find out the impact of cardiac problems on patients to identify and assess these problem accordingly.

The objective of the study is to assess the physical , psychological and social problems of patients who undergo surgery and compare between the Coronary Artery bypass Gruft (CABG) and valve replacement (VR) patients and to determine if there are significant differences in problems according to sex , age , education , smoking and drinking alcohol .

Methodology

A descriptive study . using the assessment technique was conducted in cardiac units , in Ibn Albatar for Cardiac Surgery and Iraqi Center for Heart Diseases , from 22nd January , 2003 to 10th March , 2003 a sample of (50) patients consisting (32) male and (18) female with preoperative cardiac surgery was used , (21) patients for CABG surgery and the other (29) patients who were scheduled VR surgery .

A questionnaire was constructed by the investigator for purpose of the study , it consists of total (92) items , which are distributed through the following :

Part one : demographic data sheet .

Part two : physical problems which includes :

- cardiovascular system problems .
- respiratory system problems .
- digestive system problems .
- urinary system problems .
- head , neck and other problems .

which were measured on 2 levels rating scale Yes (2) and No (1) .

Part three : psychological problems , which are depression , anxiety , were measured at three levels Likert scale of [3] indicates that the problems is (always) , (2) indicates presence of the problems as (sometime) and (1) indicate the absence of the problem (never), fear measured (5) points of Likert scale frequently (5) , sometimes (4) rarely (3) never (2) at not applicable (1) .

Part four : social problems are measured such problems on (3) level likert rating scale always (3) , some time (2) and never (1) .

The pilot study was conducted on (10) patients to determine the reliability and the validity of questionnaire , the data were collected through the period of 6th November 2002 , through 27th November 2002, alpha correlation coefficient was computed , and indicates that the correlation coefficient was computed and indicated that the correlation coefficient was (r = 0.25) for physical problem , (r = 0.89) for psychological problems , and (r = 0.87) for social problems . content validity was determined for the questionnaire, and panel of (16) experts was used , the data analysis are used descriptive data analysis percentage , frequency , mean score , cut off point (1.5) for physical problem (2) for psychological problem and (3) for fear , and inferentional data analysis , t test and analysis of variance (ANOVA) .

Results

Table 1. Distribution of demographic characteristics of the study sample **.**

No	Characteristics	CABG		VR	
		Fr	%	Fr	%
1	Age (years)				
	20-29	2	9.50	10	34.5
	30-39	3	14.5	8	27.6
	40-49	2	9.50	5	17.2
	50-59	6	28.6	6	20.7
	60-69	7	33.3	----	----
	< 70	1	4.80	----	----
	Total	21	100%	29	100%
2	Sex				
	Male	18	85.7	14	48.3
	Female	3	14.3	15	51.7
	Total	21	100%	29	100%
3	Level of education				
	Able to read and write	5	23.8	8	27.6
	Primary school graduate .	4	19.0	18	34.5
	Intermediate School graduate	1	1.80	3	10.3
	Secondary school graduate	1	4.80	5	17.2
	Institute Graduate	3	14.3	----	----
	College graduate	6	28.6	3	10.3
	Higher education graduate	1	4.80	----	----
	Total	21	100%	29	100%
4	Smoking				
	Yes	5	23.8	4	13.7
	No	16	76.2	25	86.3
	Total	21	100%	29	100%
5	Alcohol drinking				
	Yes	1	4.80	1	3.40
	No	20	95.2	28	96.6
	Total	21	100%	29	100%

There is significant association between patient's age and sex distribution , further , the CABG patients were older than VR ones, most of them were (60-69) years old (33.3 %) . males were exposed to CABG (85.7 %) of females were at greater risk of cardiac valves than males (51.7 %) . most of them of the CABG patients were college graduates (28.6 %) and the VR patients were primary school graduate (34.5 %) . Concerning smoking and drinking alcohol majority of all patients were neither smoking nor drinking alcohol , for nonsmoking (CABG = 76.2 % ; VR = 86.3 %) for drinking alcohol (CABG = 95.2 % ; VR = 96.6 %) respectively

Table 2 : Statistical comparison in mean and standard deviations of physical problems between CABG and VR patients **.**

No	Physical problems	No of item	Sub items of physical problems	CABG		VR		T . value	P < 0.05
				M.S	SD	M.S	SD		
1	Cardiovascular system problems	1	Palpitation	1.666	0.483	1.862	0.350	- 1.659	0.104
		2	Hypertension	1.333	0.483	1.103	0.309	2.049	0.046 S
		3	Hypotension	1.142	0.358	1.069	0.257	0.849	0.400
		4	Pallor	1.381	0.740	1.310	0.470	0.512	0.682
		5	Peripheral cyanosis	1.142	0.358	1.275	0.454	-1.112	0.272
		6	Central cyanosis	1.042	0.218	1.069	0.257	-0.308	0.760
		7	Finger clubbing	1.095	0.300	1.034	0.185	0.882	0.382
		8	Numbness	1.666	0.483	1.551	0.506	0.808	0.423
		9	Fatigue	2.000	0.000	1.724	0.454	2.771	0.008 HS
		10	Legs edema	1.095	0.300	1.172	0.384	-0.765	0.448
		11	Ascitis	1.000	0.000	1.000	0.000	----	----
2	Respiratory system problems	12	Exertional dyspnea	1.666	0.483	1.482	0.508	1.289	0.204
		13	Dyspnea at rest	1.190	0.511	1.069	0.257	1.103	0.276
		14	Orthopnea	1.619	0.497	1.448	0.506	1.186	0.242
		15	Paroxysmal nocturnal dyspnea	1.666	0.483	1.379	0.493	2.049	0.046 S
		16	Dry cough	1.238	0.436	1.482	0.508	-1.780	0.081
		17	Productive cough	1.238	0.436	0.137	0.350	0.899	0.373
		18	Hemoptysis	1.000	0.000	1.069	0.257	-1.222	0.228
		19	Central chest pain	1.666	0.483	1.551	0.506	0.808	0.423
		20	Chest pain radiate to left hand	1.571	0.507	1.517	0.508	0.372	0.711
		21	Chest pain radiate to neck	1.571	0.507	1.334	0.483	1.602	0.116
		22	Wheezing	1.095	0.300	1.206	0.412	-1.053	0.297
3	Digestive system problems	23	Difficulty in swallowing	1.285	0.462	1.103	0.309	1.669	0.102
		24	Loss of appetite	1.333	0.483	1.413	0.501	-0.569	0.572
		25	Nausea	1.333	0.483	1.310	0.70	0.169	0867
		26	Heartburn	1.714	0.462	1.344	0.483	2.714	0.009 HS
		27	Jaundice	1.047	0.218	1.034	0.185	0.229	0.802
		28	Diarrhea	1.047	0.218	1.103	0.309	-0.707	0.438
		29	Constipation	1.523	0.511	1.241	0.435	2.103	0.041
4	Urinary system problems	30	Nocturia	1.417	0.462	1.275	0.454	3.339	0.002 HS
		31	Urine retention	1.000	0.000	1.069	0.257	-1.222	0.228
		32	Polyria	1.523	0.511	1.206	0.412	2.424	0.019 S
		33	Oliguria	1.000	0.000	1.103	0.309	-1.525	0.134
5	Head , neck and other problems	34	Headaches	1.666	0.483	1.689	0.470	-0.169	0.867
		35	Visual disturbance	1.571	0.507	1.448	0.506	0.849	0.400
		36	Syncope	1.047	0.218	1.137	0.350	-1.041	0.30.3
		37	Dizziness	1.333	0.483	1.482	0.508	-1.047	0.300
		38	Vertigo	1.318	0.497	1.286	0.412	1.351	0.183

Table 2 depictes that there is significant difference between the CABG and VR patients relative to items of the cardiovscular system problems of hypertension (p = 0.046) , respiratory system problems of paroxysmal nocturnal dyspnea (p = 0.046) and the urinary system problems of polyuria (p = 0.019) and there is

highly significant difference between these patients relative to the cardiovascular system problems of fatigue (p = 0.008) digestive system problems of heartburn (p = 0.009) and urinary system problems of Nocturia (p = 0.002) .

Table 3. statistical comparsion in mean and standard deviation of psychological problems between CABG and VR patients .

No	Psychological problems	No of items	Sub items of psychological problems	CABG		VR		T. value	p< 0.05
				M.S	SD	M.S	SD		
1	Anxiety problems	1	I have nightmares	1.714	0.717	1.448	0.631	1.389	0.171
		2	I feel anxious , feel tremors , internal shaking	1.952	0.740	1.655	0.720	1.423	0.161
		3	Get upset without a reason	1.318	0.497	1.482	0.829	-0.500	0.619
		4	I feel scared	1.571	0.676	1.724	0.882	-0.664	0.150
		5	I feel confused and disturbed	7.904	0.700	1.724	0.882	0.777	0.441
		6	I feel almost fainting	1.142	0.358	1.103	0.309	0.415	0.680
		7	I feel anxious , tense (short tempered)	2.190	0.601	2.000	0.845	0.882	0.382
		8	I feel discomfortable	2.000	0.707	1.965	0.778	0.161	0.873
		9	I have palpitation (rapid heart beating)	1.952	0.740	2.551	0.572	-3.230	0.002 HS
		10	I feel tight – chest	1.714	0.560	1.724	0.701	-0.053	0.958
2	Depression problems	11	I feel upset from everything	1.619	0.804	1.862	0.742	-1.103	0.276
		12	I feel sad	2.047	0.864	1.965	0.823	0.341	0.735
		13	I feel I hate myself	1.285	0.560	1.241	0.576	0.271	0.787
		14	I feel I lose interest in others	1.333	0.577	1.172	0.468	1.087	0.282
		15	I feel pessimist from future	1.714	0.783	1.397	0.621	1.685	0.099
		16	I feel my life is very tiresome	2.285	0.783	1.965	0.905	1.304	0.198
		17	I regret most of my behaviors	1.809	0.813	1.896	0.859	-0.361	0.719
		18	I pass through long periods of sadness	1.761	0.889	1.758	0.786	0.014	0.989
		19	I need exceptional effort to face a problem or difficulty	1.666	0.795	1.517	0.633	0.793	0.464
		20	I feel myself In need to cry	2.190	0.872	2.172	0.759	0.078	0.983
3	Fear problems	21	I’m afraid of incomplete improvement and presence of limitations to my activities .	2.952	1.244	3.172	1.071	-0.670	0.506
		22	I’m afraid of losing my job due to my health status .	2.000	1.341	2.172	1.390	-0.439	0.663
		23	I’m afraid of Ican't afford medical expenses .						
		24	I’m afraid I depend on my spouse too much .	3.285	1.309	2.862	1.245	1.162	0.251
		25	I’m afraid of problems with heart during sexual intercourse .	2.809	1.435	2.586	1.350	0.562	0.577
		26	I’m afraid that overexertion possible may cause harm (injuring a valve or vessel) .	2.517	1.399	2.586	1.323	-0.038	0.970
		27	I’m afraid that a wound may dehisce or some tendons	3.047	1.627	3.517	1.478	-1.063	0.293

			in the chest may loosen during coughs .	3.142	1.388	3.344	1.370	-0.512	0.611
		28	I'm afraid of side effects of some drugs e.g. such as aspirin .						
		29	I'm afraid of complications or other diseases e.g. pneumonia ,MI..	3.047	1.283	3.103	1.345	-0.148	0.883
		30	I'm afraid of having noisy valve sounds .	3.285	1.382	3.379	1.347	-0.240	0.812
		31	I'm afraid of the valves and blood vessels flow , as a time will last .	1.666	1.316	3.241	1.455	-3.928	0.000HS
		32	I'm afraid of arrhythmia's postoperatively .	2.428	1.434	3.379	1.347	-2.397	0.020 S
		33	I'm afraid of death due to operation .						
		34	I'm afraid of reoperation in the future .	2.904	1.044	3.379	1.320	-1.365	0.179
		35	I'm afraid of limitation to my social activities.	3.751	1.502	3.620	1.399	-0.119	0.906
				3.857	1.388	3.965	1.322	-0.280	0.0781
				2.952	1.203	3.448	1.325	-1.357	0.181

Table 3 reveals that there is a significant difference between the CABG and VR patients with respect to the fear problems of " I am afraid of the valves and vessels blood flow , as time last " (p = 0.020) and highly significant difference between these patients with respect to anxiety problems of " I have palpitation (rapid heart heating) " (p = 0.002) and that of fear problems of " I am afraid of having noisy valve sound " (p = 0.000) .

Table 4 . Statistical comparison on mean and standard deviation of social problems between CABG and VR patients .

No	**Problems**	**No of item**	**Sub items of social problems**	**CABG**		**VR**		**T . value**	**P < 0.05**
				M.S	**SD**	**M.S**	**SD**		
1	Social problems	1	I suffer from change in the relation with others	1.476	1.030	1.034	0.185	2.267	0.028 S
		2	I suffer from social isolation from others	1.619	0.973	1.344	0.669	1.181	0.243
		3	I have an odd behavior with people	1.095	0.300	1.000	0.000	1.712	0.093
		4	I find difficulty in talking with others	1.047	0.218	1.103	0.409	-0.568	0.572
		5	I suffer from family support	1.190	0.402	1.103	0.309	0.864	0.392
		6	I suffer from change in the family relationship	1.190	0.402	1.310	0.603	-0.790	0.433
		7	I suffer from unability to perform ordinary physical activities	2.467	0.679	2.793	0.559	0.806	0.077
		8	I suffer from being unable to perform regular daily activities … etc	1.523	0.679	2.000	0.925	-1.997	0.050 S

The comparison of the table indicates that there is a significant difference between the CABG and VR patients in , social problems relative to that of " I suffer from change in the relation with others " (p = 0.028) and " I suffer from being unable to perform normal daily activities " .

Table 5 . Personal ranks correlation coefficient between physical psychological , psychological and social problems of the CABG and VR patient .

Groups	**Problems**	**Physical**	**Psychological**	**Social**
CABG	Physical	1.000	0.922	0.634

	Psychological	0.922	1.000	0.004
	Social	0.634	0.004	1.000
VR	Physical	1.000	0.427	0.346
	Psychological	0.427	1.000	0.150
	Social	0346	0.150	1.000

Correlation's out of this table shows that with CABG patients , physical problems have strong positive relationship with their psychological problems (r = 0.922) but with the VR patients , problems have weak positive relationship among them .

Table 6 . Statistical comparison in physical , psychological and social problems between CABG and VR patients with regard to age **.**

problems / Age	Physical problems			Physical problems			Social problems		
	VABG	VR	P< 0.05	CABG	VR	P < 0.05	CABG	VR	P< 0.05
	M.S	M.S		M.S	M.S		M.S	M.S	
20-29	1.288	1.195	0.372	2.305	2.153	0.641	1.875	1.450	0.050 S
30-39	1.384	1.293	0.340	2.244	2.355	0.689	1.708	1.531	0.0380
40-49	1.198	1.250	0.622	2.211	1.948	0.621	1.562	1.475	0.801
50-59	1.272	1.197	0.325	1.898	2.303	0.102	1.312	1.375	0.585
60-69	1.325	----	----	2.081	----	----	1.242	----	----
70 ?	1.242	----	----	3.255	----	----	2.000	----	----
	F = 1.537 P = 0.198			**F = 2.011 P = 0.096**			**F = 3.031 P = 0.020 S**		

This table reveals that there is no significant difference between CABG and VR patients , relative to there physical and psychological problems and their age , except that social problems within the age of (20-29) years which are significantly different, moreover , the patients social problems are a significantly different from physical and psychological within the same age interval .

Table 7 . Statistical comparison in physical , psychological and social problems between CABG and VR patients with regard to sex .

Problems	Physical problems			Psychological problems			Social problems		
	CABG	VR	P< 0.05	CABG	VR	P< 0.05	CABG	VR	P< 0.05

Sex	M.S	M.S		M.S	M.S		M.S	M.S	
Male	1.296	1.218	0.061	2.124	1.945	0.298	1.423	1.357	0.564
Female	1.361	1.245	0.409	2.248	2.439	0.301	1.625	1.558	0.580
	T = 0.137 P= 0.891			T = 3.035 P = 0.004 HS			T = 2.148 P = 0.037 S		

A comparison of this table shows that there is a significant difference between the CABG and VR patients , social problems relative to their sex and a highly significant difference is between them relative to the psychological problems but there is no significant difference between CABG and VR patient sex relative to physical problems .

Table 8 . Statistical comparison in physical , psychological and social between CABG and VR patients with regard to educational status .

Problems / Educational level	Physical problems			Psychological problems			Social problems		
	CABG	VR	P< 0.05	CABG	VR	P< 0.05	CABG	VR	P< 0.05
	M.S	M.S		M.S	M.S		M.S	M.S	
Able to red and write	1.281	1.225	0.490	2.217	2.229	0.968	1.500	1.560	0.676
Primary school graduate	1.344	1.278	0.257	2.025	2.320	0.242	1.250	1.500	0.022 S
Intermediate school graduate	1.519	1.093	0.119	2.211	2.051	0.646	1.750	1.208	0.133
Secondary school graduate	1.314	1.228	0.580	2.688	2.044	0.400	2.000	1.375	0.085
Institute graduate	1.330	----	----	2.344	----	----	1.500	----	----
College graduate	1.230	1.241	0.897	1.992	2.177	0.570	1.375	1.458	0.794
Higher education graduate	1.284	----	----	1.900	----	----	1.5000	----	----
	F = 0.637 P = 0.700			F = 0.333 P = 0.916			F = 0.347 P = 0.908		

Comparison of this table reveals that there is no significant difference between the CABG and VR patients with regard to their problems and educational status except that of the social problems among primary school graduates .

Table 9 . statistical comparison on physical , psychological and social problems between CABG and VR patients with regard to alcohol drinking .

problems	Physical problems			Psychological problems			Social problems		
	CABG	VR	P < 0.05	CABG	VR	P < 0.05	CABG	VR	P < 0.05

Alcohol drinking	M.S	M.S		M.S	M.S		M.S	M.S	
Yes	1.292	1.194	N/A *	2.100	2.155	N/A *	1.375	1.625	N/A *
No	1.299	1.233	0.068	2.143	2.266	0.632	1.456	1.455	0.992
	T = 0.291 P = 0.774			T = 0.107 P = 0.916			T = 0.729 P = 0.472		

N/A* : not appreciated because drinking in both props were equal .

This table had revealed that drinking alcohol had no impact upon their physical , psychological and social problems .

Table 10 . statistical comparison of physical , psychological and social problems between CABG and VR patients with regard to smoking .

Problems / Smoking	Physical problems			Psychological problems			Social problems		
	CABG	VR	P < 0.05	CABG	VR	P < 0.05	CABG	VR	P < 0.05
	M.S	M.S		M.S	M.S		M.S	M.S	
Yes	1.272	1.128	0.109	2.306	1.940	0.203	1.750	1.375	0.235
No	1.307	1.246	0.49	2.090	2.238	0.132	1.359	1.465	0.168
	T = 1.498 P = 0.149			T = 1.038 P = 0.309			T = 0.637 P = 0.350		

This table had depicted that smoking had no impact upon the physical , psychological and social problems of the CABG and VR patients .

Discussion

1. Discussion of demographic characteristics of the CABG and VR patients in terms oftheir (age , sex , level of education , smoking and drinking alcohol) .

   Analysis of the demographic characteristics shows that older age patients become at greater risk of being candidate CABG and VR patients (table 1) . the subject ranget for CABG in age from (40-70) years , the overall mean age was (62.0) years , with the male subjects having a mean age of (64.7) years and female (61.5) years [6] .

   Regarding their sex , the study indicates that (85.7) males were exposed to CABG more than female (14.3) . in contrast , females (51.7 %) were more exposed to VR than males (48.3 %) (table 1) .The subjects for CABG (73.6%) were male . concerning their education [6], the study reported that most of the CABG patients were college graduates (28.6 %) (table 4) . For smoking and drinking alcohol , the finding reveals that the vast majority of the CABG patients were not smoking (76.2 %) and not drinking alcohol (85.2%) and those of VR were not smoking (86..3%) and not drinking alcohol (96.6%) (table 1) . In a study [6] the findings indicate that (55.4 %) of the subjects stated that they did not use alcohol , but (18.5 %) had reduced their alcohol consumption since being diagnosed with coronary artery disease , whereas (24.6 %) maintained their same level of alcohol consumption during the preoperative phase .

2. Discussion of the comparison between the CABG and VR patients in terms of their physical , psychological and social problems .

   Such comparison depicts that CABG patients had experienced a variety of physical problems greater than those of valve replacement (VR) , problems of moderated influence were those of hypertension , paroxysmal nocturnal dyspnea and polyuria and those of greater influence , such as fatigue , heartburn and nocturia (table 2) . The study of [6] who reports the most common problems are in descending order fatigue (72.2%) , dyspnea (45.8%) , chest pain (37.5%) and other problems reported in descending order are ; changes in mood , palpitation and sleep disturbances , [5] states that chest pain is usually located in the substernal region and often rediates to the left arm , jaw and neck , regarding the psychological problems , the finding reveals those VR patients had greatly experienced episodes of fear as being afraid of noisy valve sounds and of anxiety as feeling of discomfort . They had also experienced less influential episodes of fear concerning those of being afraid of valves and vessels blood flow , as time (table 3) such psychological problems may emerged due to their concerns about the successf of the surgery , the outcome of the surgery , and the death of worth . support of this finding is determined in the work of [7] who reportes that the main concerns of the patients who undergo cardiac surgery are success of the operation , ability to return to former activates , early postoperative recovery , [4] reports that both men and women having intensive fear of pain and fear of death increases consistently through each point of measurement , with respect to the social problems , it has been noted that CABG patients had suffered from changes in their relation with others more than the VR ones (table 4) .

3. Discussion of the relationship among the physical ,in psychological and social problems for CABG and VR .

   As a result of the correlation between these problems , it is shown that the physical problems of CABG patients were strongly related to those of psychological ones (r = 0.922) and moderately related to the social ones (0.634) . This was one side on the other , the VR patients problems were weakly related to each (table 5) .

4. Discussion of the relationship between the physical , psychological and social problems and the demographic characteristics of the CABG and VR patients .

Comparison of physical , psychological and social problems between CABG and VR patients reveals that CABG patients experience more social problems than ratierts VR because they were concerned about the future of their families in case they die after (table 6) and they may seek social support . relative to their health problems , CABG patients experienced more psychological and social problems than VR ones , but the distribution of sex for CABG and VR patients does not present differences with regard to their problems (table 7) . Comparison of physical , psychological and social problems between CABG and VR patients with regard to age shows that those of VR were primary school graduates experienced more social problems than those of CABG patients (table 8) .

Recommendation :

Based on the study conclusion it can be recommended that .

1. a preoperative cardiac surgery oriented educational program can be designed . constructed and presented to patients with the problems for the early detection and the reinforcement of patient coping with such problems .
2. nurses . who are involved with patients who undergo these surgeries should be encouraged to attend training sessions which are concerned with issues through which management can be easily implemented for these problem .
3. supportive system can be created in which an emphasis is placed to relieve psychological and social problems through reinforcement of patients coping .
4. future studies can be conducted with large sample size with different design , and emphasis on alcohol drinking and smoking .

References :

1. Black . J and Jacobs , E .: *Medical Surgical Nursing Clinical management for continuity of care* , 5th edition , New York : W.B. Saunders company 1997 .
2. Brauwald , E. : *Heart Disease : Text Book Cardiovascular Medicine* , 5th edition , New York : W.B. Saunders company 1997 .
3. Carpenito , L. : *Nursing Diagnosis : Application to Clinical Practice* , 5th edition , Philadephia V.B. Lippincott , 1993 .
4. Heillila , J. : Paunonen . M. and Laippala , P. : " Gemder Differences in Fears Related to Coronary Arteriography" , *heart and lung* , Vol. 28 , No.1 , 1999 .
5. Hudak , C. : Gallo , B. and Morton , P. : *Critical Care Nursing – Aholostic Approach* , 7th editional , Philadelphia ; Loppincott Company , 1998 .
6. Jonsdottir , H. and Baldursdottir , L. : " The Experience of People aWaiting Coronary Artery bypass Graft Surgery : the Icelandic Experience" , *Journal of Advanced Nursing* , Vol. 27 , No. 6 . 1998 .
7. Underwood , M. ; Firmin , R. and Jehu , D. : " Aspects of Psychological and Social Morbidity in Patients awaiting coronary Artery bypass grafting" , *British Heart Journal* , Vol. 69 , No. 5 , 1993 .