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QUALITY OF LIFE AND ITS RELATED FACTORS FOR PATIENTS WITH CONGESTIVE HEART FAI LURE AT BENHA UNIVERSITY HOSPITAL

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Abstract:

Congestive heart failure (CHF) is a disease caused by weakening of the heart muscle making it unable to pump a sufficient volume of blood to supply the body's need for oxygen. The CHF affecting patient's quality of life. **Aim of the study:** was to assess quality of life for patients with congestive heart failure& factors affecting quality of life for such group of patients at coronary care unit at Benha University Hospital**. Methods:** A descriptive exploratory research design was used. **Study subjects:** A sample of 100 patients with CHF admitted to Coronary Care Unit at Benha University Hospital. **Two tools** were used to collect data (1) Interview questionnaire sheet, (2) The quality of life scale. **Results:** the present study revealed the majority of studied subjects (81%) had unsatisfactory level of information regarding CHF and its management and (55%) have poor total QoL. There were many factors that affect the patient's QoL as physical (75%), psychological (68%), social (50%), spiritual (29%) & patient' beliefs (38%) factors. There was statistically significant ($P<0.05$) relation between overall patients' QoL and demographic characteristics, economic, medical history and level of information. **Conclusion:** Finding of this study revealed that more than half of studied subjects have poor total QoL , the majority of them had unsatisfactory information about CHF, healthy diet and management, and there were many factors that affect the patient's QoL as physical, psychological, social, spiritual & patient' beliefs factors .**The study recommended** that there is a need for continuous monitoring and evaluating QoL of CHF patients for early detecting and solving any problems and improving patiens` information toward the disease, healthy diet and management. Establishing a rehabilitation program for CHF patients to improve their QoL. The need for continuous educational programs for CHF patients and their families about the disease, management, complication and ways to alleviate them and supplying cardiac units with psychotherapists and social workers to assess patients needs and intervene with them.

Key words: Congestive heart failure, Quality of life ,Nursing, Benha university

Introduction:

Congestive heart failure (CHF) is defined as the inability of the heart to supply sufficient blood flow to meet the needs of the body. The term "CHF" implies that the impaired blood flow is causing fluid retention in the lungs, legs, ankles or feet. Other common symptoms include shortness of breath when lying down or during exercise, fatigue, weakness, reduced exercise capacity, and rapid or irregular exercise ***(Lewis, Ruff, Mclean ,etal., 2011).***

Quality of life (QOL) has become an accepted end point in clinical research trials in recent years, as interest in patient's experiences and preferences has grown. QOL is of particular importance in trials comparing treatments with similar or no impact on disease progression and survival. However, the term QOL is often used vaguely and without clear definition, this not surprising, considering the broad nature of a concept that includes physical, psychological, social functioning and other perceptions of health status, pain and overall satisfaction with life ***(Schipper, 20١٥).***

Cardiac nurses play a fundamental role in the educational process and can be the primary practitioners who teach and evaluate patients' self – care abilities, which include weight monitoring, sodium and fluid restrictions, physical activities , regular medication use, monitoring signs and symptoms of disease worsening, and early search for medical care. Cardiac nurses should strive to understand the barriers to overcome those barriers. ***(Phipps, Monahan, Sands, etal., 2013).***

Significance of the study:

Congestive heart failure is a major public health problem. Hospital admission are often unplanned for readmission that have a high mortality rate. As well, because of the increased incidence of mortality and morbidity in congestive heart failure in the world and also since 1948, when the World Health Organization defined health as being not only the absence of disease and infirmity but also the presence of physical, psychological, spiritual , and social wellbeing . Quality of life issues have become steadily more important in health care practice and research.

Incidence of mortality and morbidity in CHF increase in the world. Heart failure affects close to 5.8 million people in the United States and each year close to 550,000 new cases are diagnosed ***(Gonce & Fontaine, 2013).*** In Egypt, number of patient with CHF is 1,4 million (Statistics by Country for Congestive Heart Failure, 2013).

On the duration of 2013-2014 , the number of patients admitted to CCU at Benha university hospital was 2112 patients, of them 201 patients with congestive heart failure. It is about 9% of total cases. ***(Benha university hospital statistical office, 2014).***

Aim of the study:

The study aims to:

1-Assess quality of life for patients with congestive heart failure.

2-Assess factors affecting quality of life for such group of patients at coronary care unit at Benha University Hospital.

Research Questions:

To achieve the aim of this study the following research questions were formulated:

1-What is the quality of life for patients with congestive heart failure?

2-What are the factors affecting quality of life for patients with congestive heart failure?

Subjects and method:

Research design:

A descriptive exploratory research design was utilized in this study.

Research Setting:

This study was conducted in coronary care units at Benha University Hospital

Subjects:

The subject of this study consists of (100) patients with CHF admitted to coronary care unit at Benha University Hospital.

Tools for Data Collection:

Three tools were piloted and used by the researcher to collect data including:

Tool I: Interview Questionnaire sheet :

It was developed by researcher based on current review of literatures. It consisted of 2 parts:-

Part (2): It concerned with the following:

A- Data related to medical history:

seven questions related to medical history variables such as onset of disease, frequency of hospital admission , complaints from others diseases, complaints from chest pain , treatment have any side effects on physical fitness , the side effects present and receiving any guidance from the medical team about special treatment or food or stress.

B- Data related to information regarding congestive heart failure disease and its management:

Seventeen questions related to level of information regarding CHF disease and its management such as meaning of CHF, causes of CHF, signs and symptoms of CHF, complications of CHF, management have positive impact on physical fitness , the doses of medications taking, the benefit of medications, frequency of medications, regular follow up, weight controlling, frequency of meals, healthy food for CHF patients , way of cooking food , decrease fluid intake per day, amount of fats in diet, amount of salt in diet and practicing exercise.

Tool II: The quality of life scale:

This scale was used to determine the factors affecting QoL of patients with CHF. It is adopted from **Bergner (1977), paddila & Grant (1985) and king& hinds (1998)** . It was modified and translated to Arabic language then to English language by the researcher and taken the opinion of 7 expertise.

It included the following domains:

a- Physical well-being.
b- Psychological well-being.
c- Social well-being.
d- Spiritual well-being.
E- Patient's beliefs.

Scoring system: this scale based on five dimensions which classified as the following, physical well-being (14) items, psychological well-being (14) items, social well-being (9) items, and spiritual well-being (7) items, factors related to the patient's beliefs (8) items. These dimensions measure the factors affecting the QoL for patients with CHF .So the total items were (52) items.

The questions were deducted in such a way to elicit the response of patients along a continuum of rating scale:

2= No = No problem , 1= To some extent =little problem ,0= Yes = Severe problem.

The high rate for positive response and the higher score, the better QoL. The patient's marks were added and collected to each dimension separately and recorded for each patient individually. The total score of quality of life scale could range from (0-104).

It considered good if the score ≥ 75, average ≥50 and poor < 50.

Pilot study:

The pilot study was applied on a group of "10" patients for testing clarity arrangement of the items, applicability of the tool and time consuming. Based on the findings of the pilot study and the opinioner 7 expertise from medical and nursing staff in Benha, Zagazig and Tanta university. Some modifications for the tool were done. Patients included in the pilot study were excluded from the sample. The time needed to fill in the questionnaire was about (45-50 minutes).

Administrative design:

An official permission was obtained to carry out the study, the necessary approval was obtained from director of coronary care unit at Benha University Hospital. A letter was issued to him from the faculty of nursing explaining the aim of the study in order to obtain permission and help.

Ethical consideration:

It was necessary for the researcher to introduce himself .The purpose of the study was explained to the patients and oral consent was obtained from them to participate in this study. They were given an opportunity to withdraw from the study without given a reason and they were assured that anonymity and confidentiality of information was protected. Ethics, values, culture, and beliefs were respected.

Statistical analysis

After completion of data collection, the data were organized and tabulated, statistically analyzed using statistical program social science (SPSS) version 20 to evaluate the patients under the study. The statistical analysis included number N, percentage %, and chi square (X^2).. Also cronbach's alpha test was used to test the reliability of the tool**.**

Result:

Table (1):- Distribution of the studied subjects according to their demographic characteristics (n=100)

Demographic characteristics	**n= 100**	
	No	**%**
Age (years)		
30-	38	38.0
50-	49	49.0
>70	13	13.0
Mean ± SD	55.26± 13.24	
Gender		
Male	59	59.0
Female	41	41.0
Residence		
Rural	71	71.0
Urban	29	29.0
Educational level		
Illiterate	42	42.0
read and write	14	14.0
Primary	12	12.0
Secondary	7	7.0
University	25	25.0
Occupation		
Physical work	19	19.0
Employee	16	16.0
Housewife	24	24.0
Non-employee	41	41.0

The characteristics of the study sample are described in table (1): illustrates approximately half of studied subjects (49%) their age ranged between (50-70 years) with a mean age 55.26 ± 13.24 years old and approximately three fifth of them (59%) were male. More than two thirds of studied subjects (71%) are coming from rural area. While more than two fifth (42%) their educational level is illiterate and (41%) are non-employee.

Table (2): Distribution of the studied subjects according to medical history (n=100)

Medical history	n= 100	
	No	**%**
Onset of disease (years)		
< 5	28	28.0
5-10	60	60.0
> 10	12	12.0
Mean ± SD	6.18 ±3.31	
Frequency of admission		
one	31	31.0
Twice	55	55.0
Three times	10	10.0
More than three times	4	4.0
Complains from other diseases		
-Coronary artery disease	35	35.0
- Hypertension	67	67.0
- Angina pectoris	6	6.0
- Congenital heart disease	5	5.0
- Clotting	8	8.0
- Diabetes mellitus	13	13.0
- Renal failure	12	12.0
- Psychological pressure	10	10.0
- Liver disease and viruses	4	4.0
Complaints from chest pain		
Yes	66	66.0
No	34	34.0

Table (2): shows that more than half of studied subjects (60%) complained from CHF from 5 to 10 years ago and (55%) of them entered the hospital twice. It also showed that two third of studied subjects complains from hypertension and chest pain (67% & 66% respectively).

Table (3): Distribution of the studied patients according to their quality of life domains (n= 100)

Quality of life domains	n= 100		
	Good	**Average**	**Poor**
	%	**%**	**%**
Physical well-being	3.0	40.0	57.0
Psychological well-being	6.0	26.0	68.0
Social well-being	11.0	39.0	50.0
Spiritua Spiritual well-being	15.0	56.0	29.0
Health beliefs Health beliefs	10.0	52.0	38.0
1. Total QoL	4.0	41.0	55.0

Table (3) shows that more than two third of studied subjects (68%) have poor psychological wellbeing. While more than half of studied subjects (56%) have average spiritual wellbeing and (55%) have poor total QoL.

Table (4) Relation between total score level of quality of life and demographic characteristics of the studied subjects (n=100)

quality of life demographic characteristics	**Good n=4**		**Average n=41**		**Poor n=55**		^2X	**P – value**
	No	**%**	**No**	**%**	**No**	**%**		
Age (years)								
30-	3	75.0	21	51.3	14	25.5		
51-	1	25.0	19	46.3	29	52.7	13.617	<0.001**
>70	0	0.0	1	2.4	12	21.8		
Gender								
Male	4	100.0	29	70.7	26	47.3	8.239	< 0.05*
Female	0	0.0	12	29.3	29	52.7		
Residence								
Rural	1	25.0	25	61.0	45	81.8	9.238	< 0.05*
Urban	3	75.0	16	39.0	10	18.2		
Educational level								
Illiterate	2	50.0	8	19.5	32	58.2		
read and write	1	25.0	4	9.8	9	16.4		
Primary	0	0.0	8	19.5	4	7.3	21.332	<0.001**
Secondary	0	0.0	5	12.2	2	3.6		
University	1	25.0	16	39.0	8	14.5		
Occupation								
Physical work	0	0.0	1	2.4	18	32.7		
Employee	1	25.0	9	22.0	6	10.9	18.683	< 0.001**
Housewife	0	0.0	10	24.4	14	25.5		
Non-employee	3	75.0	21	51.2	17	30.9		
Marital status								
Single	0	0.0	0	0.0	3	5.5		
Married	3	75.0	37	90.2	45	81.8	6.958	>0.05
Divorced	1	25.0	1	2.4	5	9.1		
Widowed	0	0.0	3	7.3	2	3.6		

**(S) Statistical significant difference ($P \leq 0.05$).*
***(HS) Highly statistical significant difference ($P \leq 0.001$).*
(NS) No Statistical significant differences ($P > 0.05$).

Table (4) reveals that there is highly statistically significance relation between total score level of quality of life and socio demographic characteristics of the studied subjects as regard to age, educational level and occupation (X2=13.617%, 21.332% &18.683% respectively) at P<0.001. And there is statistically significance relation between total score level of quality of life and their socio demographic characteristics as regard to gender and residence (X2=8.239% & 9.238% respectively) at P<0.05.

Table (4): Relation between total score level of quality of life and economic status of the studied subjects (n=100)

quality of life Socio demographic characteristics	**Good n=4**		**Average n=41**		**Poor n=55**		**^{2}X**	**P – value**
	No	**%**	**No**	**%**	**No**	**%**		
Type of house								
Special	4	100.0	37	90.2	49	89.1	0.498	>0.05
Family house	0	0.0	4	9.8	6	10.9		
Number of children								
None	0	0.0	0	0.0	13	23.6		
≤3	4	100.0	29	70.7	17	30.9	23.375	< 0.001**
>3	0	0.0	12	29.3	25	45.5		
Crowding index								
< 1	3	75.0	5	12.2	3	5.5		
1-	1	25.0	28	68.3	20	36.4	32.335	< 0.001**
2-	0	0.0	6	14.6	25	45.5		
3-	0	0.0	2	4.9	7	12.7		
Monthly income								
Enough	3	75.0	19	46.3	15	27.3	6.245	< 0.05*
Not enough	1	25.0	22	53.7	40	72.7		
Extra income								
Yes	4	100.0	3	7.3	1	1.8	48.882	< 0.001**
No	0	0.0	38	92.7	54	98.2		
Smoking								
Yes	0	0.0	15	36.6	36	65.5		
No	4	100.0	26	63.4	19	34.5	12.171	< 0.001**

**(S) Statistical significant difference (P ≤ 0.05).*

***(HS) Highly statistical significant difference (P ≤ 0.001)*

(NS) No Statistical significant differences (P >0.05).

Table (4): shows that there is highly statistically significance relation between total score level of quality of life and economic characteristics of the studied subjects as regard to number of children, crowding index , extra income and smoking (X2=23.375%, 32.335% , 48.882%1 &12.171% respectively) at P<0.001. There is statistically significance relation between total score level of quality of life and their economic characteristics as regard to monthly income(X2=6.245%) at P<0.05.

Table (5): Relation between total score level of quality of life and medical history (n=100)

Quality of life	**Good** **n=4**		**Average** **n=41**		**Poor** **n=55**		^{2}X	**P – value**
Medical history	**No**	**%**	**No**	**%**	**No**	**%**		
Onset of disease (years)								
< 5	3	75.0	22	53.7	3	5.5		
5-10	1	25.0	18	43.9	41	74.5	33.844	<0.001**
> 10	0	0.0	1	2.4	11	20.0		
Frequency of hospital admission								
One	4	100.0	21	51.2	6	10.9		
Twice	0	0.0	19	46.3	36	65.5	30.807	<0.001**
Three times	0	0.0	1	2.4	9	16.4		
More than three times	0	0.0	0	0.0	4	7.3		
Complaints from others diseases								
-Coronary artery disease								
Yes	0	0.0	0	0.0	35	63.6	44.056	<0.001**
No	4	100.0	41	100.0	20	36.4		
- Hypertension								
Yes	0	0.0	12	29.3	55	100.0	61.611	<0.001**
No	4	100.0	29	70.7	0	0.0		
- Angina pectoris								
Yes	0	0.0	0	0.0	6	10.9		
No	4	100.0	41	100.0	49	89.1	5.222	> 0.05
- Congenital heart disease								
Yes	0	0.0	1	2.4	7	12.7	3.740	> 0.05
No	4	100.0	40	97.6	48	87.3		
- Clotting								
Yes	0	0.0	0	0.0	5	9.1	4.306	> 0.05
No	4	100.0	41	100.0	50	90.9		
- Diabetes mellitus								
Yes	0	0.0	0	0.0	13	23.6	12.226	<0.001**
No	4	100.0	41	100.0	42	76.4		
- Renal failure								
Yes	0	0.0	0	0.0	12	21.8	11.157	<0.001**
No	4	100.0	41	100.0	43	78.2		
- Psychological pressure								
Yes	0	0.0	0	0.0	45	81.8	9.091	< 0.05*
No	4	100.0	41	100.0	10	18.2		
Liver disease and viruses								
Yes	0	0.0	0	0.0	3	5.5	2.530	> 0.05
No	4	100.0	41	100.0	52	94.5		
Complaints from chest pain								
Yes	0	0.0	11	26.8	55	100.0	64.132	< 0.001**
No	4	100.0	30	73.2	0	0.0		

**(S) Statistical significant difference ($P \leq 0.05$).*

***(HS) Highly statistical significant difference ($P \leq 0.001$).*

(NS) No Statistical significant differences ($P > 0.05$).

Table (5) reveals that there is highly statistically significance relation between total score level of quality of life and onset of disease, frequency of hospital admission, complain from coronary heart disease , hypertension, diabetes mellitus and renal failure and chest pain (X2=33.844%, 30.807% , 44.056 %, 61.611%, 12.226% ,11.157% & 64.132% respectively) at P<0.001. There is statistically significance relation between total score level of quality of life and psychological pressure (X2=9.091%) at P<0.05.

Table (6):-Relation between total score level of quality of life and information score (n=100)

quality of life level / of information	**Good n=4**		**Average n=41**		**Poor n=55**		**Total**		**X^2**	**P - value**
	No	**%**	**No**	**%**	**No**	**%**	**No**	**%**		
Satisfactory	4	100.0	14	34.1	1	1.8	19	19.0	33.715	<0.001**
Unsatisfactory	0	0.0	27	65.9	54	98.2	81	81.0		

**(HS) Highly statistical significant difference (P ≤ 0.001).

This table shows that there is highly statistically significance relation between total score level of quality of life and level of information regarding congestive heart failure disease and its management (X^2 =33.715%) at P< 0.001

Disscussion:-

The current study revealed that, approximately half of sample age ranged between (50 - 70 years) with a mean age 55.26 ± 13.24. This finding is on line with that of ***Mohamed, Hasseinen &Floss (2009),*** who reported that more than three quarters of sample age ranged between 56-65 years.

This finding is also similar to that of ***Stanely and Beare (2012)***, who reported that with advanced age, the developing of heart failure is increased. The prevalence rate of CHF increases as people get older particularly after 45 years of age. This is due to lack of heart ability with advanced age. This finding is also in accordance with ***Nazeh (2012)***, who found that the majority of study subject were above 50 years.

. As well, this finding is similar to that of zagazig medicine research, master thesis, faculty of medicine carried out by ***Mostafa (2007)*** , who reported that the mean age in patients with CHF of group A was 52.9± 5.98 years, while mean age of group B was 54.2± 7.83 years. There was no statistically significant difference between the two groups regarding to age (p>0.05).

As regard to gender, the current study results revealed that more than half were males. This finding is on line with that of ***Mohamed, etal (2009)***, who reported that more than three fifths were males and less than two fifth were females. This finding is also congruent with that of ***Sandders etal. (2009)***. Which reported that males (60%) are affected more than females (40%), who suffer from CHF. This may be due to man expose to risk factors and causes more than women. This finding is similar to that of ***Mostafa (2007)*** , who reported that in group A 57 patients were males (63.3%) and 33 patients were females (36.7%), while in group B , 69 patients were males (62.7%) and 41patients were females (37.3%) . There was no statistically significant difference between the two groups regarding to age (p>0.05).

However this finding is not in accordance with that of ***Shaaban, etal (2003)*** which reported that in CHF, both sexes are nearly equally affected.

Regarding to marital status, the present study finding revealed that the majority were married .This may be due to the married people were more liable to CHF more than single related to social and psychological stress in their life and their families responsibility. This finding goes in the same line with ***Elsayed, (2008) & Apell, (2008),*** who found that married patients who have CAD represent the higher percentage of their study subject than single and widow patients.

This finding is also congruent with ***Mohamed, etal (2009)*** the majority were married. This in agreement with ***Shaaban, etal (2003),*** who reported that males and females are mostly married (86.3% & 63.5%). This may be due to that the study sample age ranged among 51-70 and also this could be related to over social and psychological stressors, the married people face more than unmarried ones.

Concerning the level of education, more than two fifth of patient under study were illiterate. This finding is congruent with ***Mohamed, hasseinen & floss (2009),*** who reported that the majority of studied subjects were illiterate. This could be due to that most of the sample reside rural area with less attention to education and decrease the level of health awareness. This finding is in agreement with and ***Lee & Carrington (2007)*** **and** ***Abd-el Rahman, (2008)*** who reported that more than two third of the studied subject were illiterate.

As regards occupation, the finding of present study showed that more than two fifth were non-employed. This finding is on line with that of ***Mohamed, etal (2009),*** who reported that (68%) were non-employed which is a normal result to the effect of heart failure as reported by ***Jill (2008),*** who highlighted that, compared to people either with or without coronary heart disease, heart failure patients were: Much more likely to be disabled, much more likely to have difficulties with daily activities such as daily working across a room. This could be due to that heart failure patients are suffering from fatigue, tiredness, decrease in concentration and activities, in addition to age factor.

As regards residence, the study revealed that more than two thirds were living in rural areas. This finding is on line with that of ***Mohamed, etal (2009)***, who reported that the majority of patients were living in rural area. While the minority of them live in urban area. This is agreement with ***Shaaban, etal (2003),*** who said that slightly more than two thirds of patients (67%) were from rural area. This may be due to that patients living in urban areas are preferring treatment in private hospitals while patients who are living in rural area mostly poor, so that they tend to resort to governmental hospitals for treatment.

Concerning medical history for patients with CHF as regard to the duration of illness, the finding of present study illustrated that three fifth of studied subjects complained from CHF from 5 to 10 years ago and more than half of them entered the hospital twice. This finding is on line with ***Khaliel., etal (2013)*** who revealed that more than third of study patients had duration of angina pectoris within one to less than five years. This is also congruent with the results of ***Hannan, etal (2011),*** who mentioned that less than half of study subjects had the duration of disease within 7 years.

Concerning Complains from others diseases, the finding of present study showed that, more than two third (67%) of studied subjects complains from hypertension and more than one third (35%) of them complains from coronary artery disease and two third (66%) of them complains from chest pain .This finding may be due to the unhealthy life style and bad habits in their diet which containing large amount of butter and also there are many factors related to rural areas, that hazard their health as poverty, diminished health services. This finding is on line with ***Shoulah, etal (2010)*** who revealed that more than half of cardiovascular elderly suffered from hypertension .Also ***Ibrahim, etal (2009)*** reported that Egypt has one of the highest prevalence rates of hypertension and about 36% of old age persons complain from hypertension and only one third of them receive medication.

Regarding to the effect of different variables (factors) on overall QoL of studied patients. In relation to demographic characteristics as regard to patient's age, the present study revealed that there is highly statistically significance relation (P<0.001) among patient's age and the perceived level of QoL. This may be due to the fact that when age is advanced, the functional abilities are decreased. This finding was accordance to results of ***Mousa (2009)*** & ***Mohamed, etal (2009)*** who reported that age negatively correlated to QoL.

Regarding to patient's level of education, the present study revealed that there were highly statistically significance relation (P<0.001) between educational level and the perceived level of QoL. This finding was in accordance to ***Mozes, etal (2007),*** revealed that there is a positive correlation between level of education and patient's QoL. This findings is also on line with ***Shaaban, etal (2003),*** who stated that the QoL was better between literate patients (51.1) than illiterate patients with congestive heart failure. This result disagree with ***Mohamed, etal (2009)*** who revealed that there were no statistically significance differences between level of education as regards total QoL scale and QoL subscale (p>0.05).

The present study showed that there were highly statistically significance relation (P<0.001) between patient's occupation and total QoL. This finding is on line with that of ***Ali (2006) and Jaarsma (2008)***, who mention there are statistically significant differences between job total QoL. This finding is also on line with ***Hunt (2007)*** , who identified that patients who had occupations were less likely to be readmitted. This result may be related to the higher physical activity of these patients. Further, an interaction between medical and socioenvironmental variables could not be excluded. In fact, there was a relationship between older age and no occupation.

The present study result demonstrated that there were statistically significant difference between male and female subject's under study, regarding to total QoL. This finding is congruent with ***Shaaban, etal (2003)*** who found significant statistically significance difference (p>0.05) between male and female patients in relation to the perceived level of social, spiritual wellbeing and there was a significant difference between sex and overall QoL. This result is also on line with ***Mohamed, etal (2009)*** who report the same result.

The present study showed that there were statistically significance differences (P<0.05) between rural and urban study subjects regarding to total QoL.

This may be due to evidence that access to health care and health outcomes may differ between rural and urban area. Rural residents are in poorer health than urban residents. This is supported by ***Agency for Health Care Research and Quality (2011),*** which reported that heart disease patients who live in rural area have a worse lifestyle when compared with those who live in urban areas. This result is also on line with ***Mohamed, etal (2009)***, they reported the same result.

concerning economic variables as regard to the number of children, the present study clarified that there was highly statistically significance relation (p<0.01) between level of total score of quality of life and number of children; as with an increase in the number of children, the total QoL is decrease ,where it demonstrates that the highest level of total quality of life score was associated with patients who have three or less children while less than half of poor quality of life score have more than three childrens . This result is on line with ***Mohamed, etal (2009)*** report that there was very highly statistically significance correlation between QoL and number of children. This finding disagreed with ***Hamdan , etal (2009)***, who reported that they did no find any significant correlations neither between the patients' quality of life and family size (Mean ± SD = 6.2 ± 3.2) nor the number of children (Mean ± SD =6.0 ±4.0).

Regarding to monthly income, the present study revealed that there were statistically significance relation (P<0.05) between level of total score of quality of life and monthly income. This result agree with ***Rathore , etal. (2012)*** who reported that the low class affects more significantly the life of patients with heart failure. This result also comes in accordance with ***Newton & Froelicher (2010)*** stated that lower socio-economic status and low income are associated with increased coronary heart disease (CHD) in men and women probably due to in part to the higher prevalence of CHD risk factors among those of lower socioeconomic status.

Regarding to smoking, the present study results showed that there were highly statistically significance differences (P<0.001) between smoking and total QoL. This may be due to the bad effect of smoking in our health and it consider a burden on patient's budget.

Regarding to medical history, the present study revealed that onset of disease, frequency of hospital admission, complain from coronary heart disease, hypertension, diabetes mellitus and renal failure , chest pain and psychological pressure as the significant factors associated with QoL in CHF patients. This result is on line with ***Yaghoubi, etal (2012)*** they revealed that suffering duration of cardiac disease and referring frequency or hospitalization frequency are of important factors in most of the studies that had significant relationship with decreasing patients' QoL.

As regards the relationship between total score level of quality of life and information score, the current study results revealed that there were a highly statistically significant relation (P < 0.001) between total score level of quality of life and level of information regarding CHF disease and its management. This finding comes in agreement with ***Betschart (2014),*** who stated that effective control of chronic diseases occurs most often in an informed and cooperative patient and improving QoL . Similarly, ***Montross (2006)*** identified that, education approaches help self management ability through, improving knowledge and enhancing empowerment skills are particularly valuable. The previous results are also consistent with those of ***Smith (2007),*** who noted that those patients who have more knowledge about cardiovascular disease can manage their condition better than those without knowledge and have better QoL.

Conclusion

The current study concluded that, More than half of studied subjects with CHF have poor total QoL. There were many factors that affect the patient's QoL as socioeconomic, medical history, level of information regarding CHF and its management, physical, psychological, social, spritual & patient' beliefs factors. There was statistically significant relation between overall patients' QoL and demographic characteristics, economic, medical history and level of information.

Recommendations:

According to results of the current study, the following suggestions are recommended:

1) -There is a need for continuous monitoring and evaluation of QoL for patients with CHF to early detecting and solving any problems.
2) The need for continuous educational programs for patients with CHF and their families about the disease , management, complication and ways to alleviate them.
3) Encouraging social agencies to support patients with chronic debilitating disease as CHF.
4) Establishing a data base for patients with CHF and follow up them after discharge.
5) Create recreational environment in those units by using methods that can help patients with CHF improve their QoL.

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