

Linke between The Activity of Daily Living and the Sense of Control among Patients with Chronic Liver Disease

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ABSTRACT

Background: chronic liver disease (CLD) is growing annually and increases the mortality and morbidity in the world. It also a complex disease that determines of the human effective especially in the middle of ages and young people. In the recent decade, the number of people with the disease had increased about 550 million people worldwide because of viral infections alone, and the number rises when adding the rest of the other causes of the disease such as fatty liver disease, alcohol, immune diseases, metabolic disorders and cholestasis disease.

Methodology: a descriptive correlational design is used through the present study in order to: assess the link Activities of Daily Living of Chronic Liver Disease Patients and their Sense of Control. The period of the study is from February, 14th, 2018 to May, 22nd, 2018. The data were collected through the use of the Arabic version of the questionnaire and by means of the interview technique with patients in Gastroenterology and Hematology Center in Al-Sadder Medical City. The data collection process started from March, 4th, 2018, to April, 5th, 2018.

Results : the study results show that the overall assessment of patients' activities of daily living related to chronic liver disease is (independent), and the overall assessment of patients' sense of control is (moderate sense of control). In addition, the study results reveal that there is a significant and direct impact of the patients' activities of daily living on their sense of control which means that when the activities of daily living of patients increase, their sense of control increases as well and vice versa.

Conclusions: the study concludes that the level of the activities of daily living for patients with chronic liver disease is good, and the level their sense of control is less than ideal. Besides, there is a direct effect of the patients' activities of daily living on their sense of control.

Recommendations: the study recommends that further researches should be carried out to improve and explore effective methods to promote the activities of daily living of patients with chronic liver disease and their sense of control. In addition, a booklets containing an explanation and instructions about activities of daily living and sense of control of patients with chronic liver disease.

KEY WORDS: Activity of Daily Living, Sense of Control, Chronic Liver Disease.

INTRODUCTION:

Chronic liver diseases in general are increasingly widespread and diseases of the liver in particular are considered a global public health problem. Chronic liver disease (CLD) substantially contributes to mortality and morbidity rates. Worldwide, about 500 million individuals have CLD with a viral etiology. However, CLD also has non-viral etiology including alcoholic hepatitis, fatty liver, autoimmune hepatitis, cryptogenic hepatitis, and other unidentified causes (de

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Souza *et al.*, 2015). A significant increase in the prevalence of chronic liver diseases (CLDs) has been observed during the recent decades globally in contrast to a decrease in morbidity and mortality from cardiovascular diseases which dominated in many industrial countries (in the Nordic, Northwestern European countries as well as in Australia and the United States) during the second half of the 20th century. It has been estimated that in countries such as the United Kingdom more people may die from cirrhosis and other CLDs than from cardiovascular diseases by the year 2030 (Šumskiene, *et al.*, 2015).

Many elements and compounds can be toxic to the liver; pesticides, smoking, toxic fumes, alcohol, certain herbs, even some descriptive and non-descriptive drugs can damage the liver, and other factors that pertain to the individual such as sex, age, impaired immune system, malnutrition and others that may be cause the liver injury or one's cofactors to the disease. CLD may persist for several years without symptoms depending on the nature of these factors and the compensability of hepatic tissue and efficiency immune system of the person's (Burza, 2015; Tang *et al.*, 2016). The causes of chronic liver disease vary according to geographical location, such as chronic hepatitis C, alcoholism, and fatty liver disease; this is common in developed countries (USA and Europe) while chronic HBV is the main reason for CLD at the Asia area. Other causes of CLD such as inherited disorders e.g. primary biliary cirrhosis, Wilson's disease, hemochromatosis, primary sclerosing cholangitis, and some are cryptogenic (Zhou, *et al.*, 2010).

CLD deteriorates the physical health of the patient and deprives his/her family's comfort and consumption of that society's medicines balance and other health services and thus increasing an economic burden on that country. It is also have a negative impact on individual's health due to potential concerns of disease, worries about the illness reputation, treatment long-term and complications, periodic checkups, and the risk of transmission of the disease to others (virus). Furthermore, CLD has been pointed out that this illness is as one of the most common clinical indicators in a broad assortment of different diseases. In addition, the psychosocial distress is one of the leading causes of disability in the adult population and expected to become the second leading cause of disability in all age groups by 2020 (Schulz *et al.*, 2008; Popović *et al.*, 2015).

Although some of CLD patients have apparent signs and symptoms that easily assessed by the traditional clinical inferences (jaundice, anorexia, nausea and vomiting, weight loss, spontaneous bacterial peritonitis, variceal hemorrhage, ascites, *etc.*). Others have few or no related physical features, and poorly diagnosed by the traditional clinical actions, such of these features (loss self-esteem, depression, inability to work or function, anxiety, and other mood problems). Therefore, there are many evidence that measuring a psychosocial and physical aspects to provides a more accurate estimation of chronic liver patients' in health status and provides a better measurement of this case (Enescu *et al.*, 2014; Vilstrup *et al.* 2014)

Few studies have assessed the activity of daily and sense of control aspects of CLD when compared with other chronic diseases. In addition information for psychological problems such as depression and anxiety are particularly few, and the most focus is on the physical problems of these patients. In this study, there is an attempt to identify the diseases through the psychosocial, physical and activity of daily and sense of control aspects. Also, there is a need to examine the interface between psychosocial variables more precisely as they can be perform with other subsequent studies as a target for interventions in order to improve therapy, good prognosis or less complication and coping mechanism with changing lifestyle of patients and their families (Hytiroglou *et al.*, 2012; Modabbernia *et al.*, 2013)

METHODS AND MATERIALS

Design of the Study:

A Descriptive Correlational Design is carried out through the present study in order to achieve the early stated objectives. The period of the study is from February, 14th, 2018 to May, 22nd, 2018.

Setting of the Study:

The study was conducted in Al-Najaf City/Al-Najaf Al-Ashraf Health Directorate / Al-Sadder Medical City, at Al-Najaf Gastroenterology and Hematology Center.

Sample of the Study:

A Non-Probability (Purposive Sample) of (132) patients who found in Al-Najaf Gastroenterology and Hematology Center are included in the study. The selection of sample size based on statistical power analysis with a statistical power more than 90%.

Study Instrument:

An assessment tool (questionnaire) is adopted and developed by the researcher to measure the variables of interest. The final study instrument consists of four parts:

Part I: Patients' Demographic Data.

Part II: Patients' Medical Data.

Part III: Activity of Daily Living scale.

Part VI: Sense of Control Scale.

Data Collection:

The data had been collected through the utilization of the developed questionnaire after the validity and reliability are estimated, and by means of a structured interview technique with the subjects who were individually interviewed, by using the Arabic version of the questionnaire and they were interviewed in a similar way, by the same questionnaire for all those subjects who were included in the study sample. The data collection process had been performed from March , 4^t , 2018, to April, 5^t , 2018. Each subject spends approximately (20-25) minutes to complete the interview.

Validity of the Instrument:

A content validity of the study instrument conducted through a group of experts who have more than 10 years of experience in nursing field.

Statistical analysis:

The data were analyzed through application of the descriptive and inferential data analysis methods, included:

- Frequency, percentage, and mean of scores.
- Chi-square.
- **STUDY RESULTS AND FINDINGS**

Table (1) Distribution of the Study Subjects by their Demographic Data

Demographic Data	Rating And Intervals	Frequency	Percent
Age / Years	<= 15	2	1.5
	16 - 20	8	6.1
	21 - 25	24	18.2
	26 - 30	8	6.1
	31+	90	68.2
	Total	132	100.0
Gender	Male	74	56.1
	Female	58	43.9
	Total	132	100.0
Level Of Education	Illiterate	20	15.1
	Able to read and write	26	19.7
	Primary school	40	30.3
	Intermediate school	10	7.6
	Preparatory school	6	4.5
	Institute	10	7.6
	College	14	10.6
	Post-graduate	6	4.5
	Total	132	100.0
Economic Status	Sufficient	38	27.3

	Sufficient to some extent	78	59.1
	Insufficient	18	13.6
	Total	132	100.0
Residency	Rural	42	31.8
	Urban	90	68.2
	Total	132	100.0
Marital Status	Single	14	10.6
	Married	110	83.3
	Divorced	6	4.5
	Widowed	2	1.5
	Total	132	100.0
Occupational Status	Retired	18	13.6
	Housewife	54	40.9
	Employee	38	28.8
	Jobless	22	16.7
	Total	132	100.0

Table (1) shows that the highest percentage of the study sample (68.2%) are within (31 and more) years old. Regarding gender, the study results reveal that the majority (56.1%) are males. In addition, the study results present that (30.3%) of the participants are primary school graduates. Concerning the economic status, (59.1%) of the participants have an income that is sufficient to some extent. Additionally, the study results show that (83.3%) of the participants are married. In regards to occupational status, (40.9%) of the study subjects are housewives.

Table (2) Patients' Clinical Data

Clinical Data	Rating And Intervals	Frequency	Percent
Diagnosis	HBV	58	43.9
	HCV	64	48.5
	Liver Cirrhosis	10	7.5
	Total	132	100.0
The Duration of The Disease / Years	<= 2.00	82	62.1
	3.00 - 4.00	30	22.7
	5.00 - 6.00	6	4.5
	7.00 - 8.00	8	6.1

	9.00+	6	4.5
	Total	132	100.0
Number Of the Previous Hospitalization	<= 3.00	66	50.0
	4.00 - 6.00	18	13.6
	7.00 - 9.00	14	10.6
	10.00 - 12.00	14	10.6
	13.00+	20	15.2
	Total	132	100.0

Table (2) reveals that the most of patients(72.3%) are diagnosed with HCV. For the duration of the disease, the majority of the study subjects (62.1%) have a duration of the disease of two years or less. In regards to the number of the previous hospitalizations, (50%) of the patients are admitted to hospital less than three times.

Table (3) Overall Assessment of Patients' Activity of Daily Living

Main domain	Rating And Intervals	Frequency	Percent
Overall Assessment Of Activity Of Daily Living	Dependent	26	19.7
	Independent	94	71.2
	Partially Dependent	12	9.1
	Total	132	100.0

Table (3) reveals that the overall assessment of patients' activity of daily living is independent (71.2%).

Table (4) Overall Assessment of Patients' Sense of Control

Main domain	Rating And Intervals	Frequency	Percent
Overall Assessment Of Sense Of Control	High Self-Control	48	36.4
	Low Self-Control	6	4.5
	Moderate Self-Control	78	59.1
	Total	132	100.0

Table (4) shows that the overall assessment of patients' sense of control is a moderate self-control (59.1).

Table (5) Correlation between Patients' Activity of Daily Living and their Sense of Control

Main domains	Statistical parameters	Activity of daily living	Sense of control
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Activity of daily living	Pearson Correlation	1	.462**
	Sig. (2-tailed)		.000
	N	132	132
Sense of control	Pearson Correlation	.462**	1
	Sig. (2-tailed)	.000	
	N	132	132
** . Correlation is significant at the 0.01 level (2-tailed).			

Table (5) shows that there is a significant correlation between the patients' activity of daily living and their sense of control at p-value > **0.01** .

Discussion:

The study results show that the most frequent age group is more than 31 years old. This result agrees with (Hung *et al.*, 2012) who found that the (31 years old) is the dominant age group of the study sample. In addition, the majority of the study subject are males. This result agrees with (Gutteling *et al.*, 2010; Popović *et al.*, 2015; Liu, Wang and Zhu, 2016) in their studies in which they found that the dominant gender is male. Regarding the level of the education, the study shows that the majority of the study participants are primary school graduates. This result agrees with (Eraydin *et al.*, 2014) in their study where they found that the dominant level of education are primary school graduates.

Concerning the socio-economic status, most of the participants have an income that is sufficient to some extent. This result agrees with (Al-aboodi and Al-dujaily, 2017) in their study which revealed that the highest percentage of the participants have an income that is sufficient to some extent. Regarding marital status, the majority of the study subjects are married. This result agrees with (Hung *et al.*, 2012; Júnior, 2016) in their study which show that the most of the participants are married. In addition, for their occupation status, most of the study subjects are housewives. This result agrees with (Popović *et al.*, 2015).

Also the study results reveal that the most of the patients are diagnosed with HCV. This result agrees with (Yu *et al.*, 2008; Davis *et al.*, 2010; Hung *et al.*, 2012) in their studies which show that the most of the participants are diagnosed with HCV. As for the duration of the disease, the majority of the study subjects have a duration of a disease of two years or less. In addition, the majority of the study sample has a number of previous hospitalizations of less than three times. This result comes because the most common patients that visit the health agencies are those with acute cases and those who need to diagnostic procedures and follow up.

Furthermore, the study results show that the overall assessment of the patients' activity of daily living is independent. This result agrees with (Rehaim and Mohamed, 2017) in their study which shows that the most participants are independent, this means that they can perform their tasks as their peers can do, or with minor difficulty only, and the overall assessment of patients' sense of control is a moderate self-control. Many reasons led to the decrease in the sense of control like the demographical data, the lack of knowledge, understanding his/her disease and progression, the lack believes and confidence. In addition, the study results reveal that there is a significant and direct impact of the patients' activity of daily living on their sense of control, which means that when the patients' activity of daily living increases that will lead to the increase in their sense of control and vice versa.

Conclusions :

Based on the study results, the study concludes that: the level of the activities of daily living for patients with the chronic liver disease is good, and the level of their sense of control is less than ideal. Besides, there is a direct effect of the patients' activities of daily living on their sense of control, (i.e, when patients' activity of daily living increases, their sense of control increases as well).

Recommendations :

Based on the study results and conclusions, the study recommends that:

- 1-Further research should be carried out to improve and explore effective methods to improve the hemodialysis patients' activity of daily living and sense of control behaviors.
- 2-Health education programs should be applied to increase the patients' knowledge regarding how to improve their sense of control and the factors affecting their abilities.
- 3-Booklets containing an explanation and instructions about chronic liver disease and the activity of daily living and sense of control should be distributed to patients.
- 4-Because the nurses stay with the patients 24 hours daily, the health management should be activated and to increase nurses roles in health education process that improves the patients' knowledge.

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