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Assessment of self-esteem among patients with hepatitis (B, C) viruses:

comparative study.

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Abstract:

Background: Chronic viral hepatic infections are a major threat to public health worldwide. Chronic hepatitis B virus (HBV) and hepatitis C virus (HCV) are the leading causes of cirrhosis and hepatocellular carcinoma, two conditions with increasing mortality and burden of disease especially in the developing countries.

Objectives: To assess self–esteem for patients with hepatitis B & C virus. To compare between patients with hepatitis B & those with hepatitis C virus regarding their self-esteem.

Methodology: Descriptive comparative is adopted in the current study to achieve the early stated objectives. The study started from March 8th, 2018 until April, 29th, 2018.
A Non-Probability (purposive Sample) of (40) HBV patients, (29) HCV patients, those who visit Al-Sadder Medical City in Al-Najaf Al-Ashraf., are included in the study sample. Data collected through using of a well-designed questionnaire consist of three parts: Part 1: Demographic Data: This part consists of (7) items, which includes age, gender, level of education, monthly income, residence, marital status, occupation status. Part 2: Clinical Data: This part consists of (6) items: (disease duration since diagnosis, associated disease, used

treatment for long time, do you smoker, do you drink alcohol, body mass index) Part 3: Self Esteem: This is a 14 item scales which is rank on (4) point scale, but we modified it to three point scale due to expert's suggestion.

Results: the study indicates not significance between self-esteem and demographic data in all items, except at item that are (age, and monthly income) their high significance at p-value < 0.01, in HBV and not significance in all items in HCV.

Conclusions: Most patients with ESRD need moderate assistance in performing in dietary, exercise and psychological in their daily self-care activities.

Recommendations: The study recommends A simple manual of guidelines of care for patients undergoing hemodialysis should be available in all units to be provided to newly admitted patients. Design and implement an educational program for nurses to help them to provide nursing interventions to ESRD patients undergoing hemodialysis to improve their self-care.

Keywords: Assessment, Self-Esteem, hepatitis (B, C).

INTRODUCTION:

Chronic viral hepatic infections are a major threat to public health worldwide. Chronic hepatitis B virus (HBV) and hepatitis C virus (HCV) are the leading causes of cirrhosis and hepatocellular carcinoma, two conditions with increasing mortality and burden of disease especially in the developing countries[(1)].

Hepatitis C virus (HCV) infection is a significant health burden across Asia, and affects 5-7 million people in China alone. Without effective treatment, patients can develop severe complications, such as hepatocellular carcinoma (HCC, for which HCV infection has become one of the most common causes in Asian and Western countries[(2)].

Hepatitis C virus (HCV) chronic infection constitutes a serious, well-recognized global public health issue, mainly due to the high rate of progression to advanced chronic liver disease (CLD) with significant morbidity and mortality [(3)].

Hepatitis B virus (HBV) is a major global health problem affecting an estimated 350 million people with more than 786000 individuals dying annually due to complications, such as cirrhosis, liver failure and hepatocellular carcinoma (HCC). Liver transplantation

(LT) is considered gold standard for treatment of hepatitis B virus (HBV)-related liver failure and HCC [4,5].

Hepatitis B is spread when body fluids—such as semen or blood—from a person infected with the Hepatitis B virus enter the body of someone who is not infected. The Hepatitis B virus is 50–100 times more infectious than HIV and is easily transmitted during sexual activity.Hepatitis B also can be spread through sharing needles, syringes, or other equipment used to inject drugs [6,7].

Hepatitis B virus (HBV) infection is a serious global health problem with significant morbidity and mortality. There is a high prevalence of depression among patients with hepatitis B [8,9].

Self-esteem refers to psychological well-being which is defined as an individual's judgment of overall self-worth, self- regard or self-acceptance or how much individual likes him or herself. Among stroke survivors in China, self-esteem is found as a significantly negative factor with depressive symptoms [10].

Self-esteem is used as an interpret characteristic if high self-esteem people feel, think, and act in a different way than low self-esteem people, result characteristic how many experience have a force on the means of people who have a sense regarding themselves, with characteristics that are needed for high self-esteem which is supposed to stimulate a wide diversity of psychological processes [11].

Objectives of the study:

This study aimed to assess of self –esteem for patients with hepatitis B & C virus.To compare between patients with hepatitis B & those with hepatitis C virus regarding their self- esteem .To find out the relationship between patients self-esteem and their demographic clinical characteristics.

METHODOLOGY:

Design of the Study:

Descriptive comparative is adopted in the current study to achieve the early stated objectives. The study started from October 1st, 2017 until May, 6th, 2018. A Non-Probability (purposive Sample) of (40) HBV patients, (29) HCV patients, those who visit Al-Sadder Medical City in Al-Najaf Al-Ashraf., are included in the study sample.

An assessment tool is adopted and developed by the researcher to assess of self-care activities for patients' with stroke. The final study instrument consists of three parts:

Part 1: Demographic Data:

This part consists of (7) items, which includes age, gender, level of education, monthly income, residence, marital status, occupation status.

Part 2: Clinical Data:

This part consists of (6) items: (disease duration since diagnosis, associated disease, used treatment for long time, do you smoker, do you drink alcohol, body mass index)

Part 3: Self Esteem:

The researcher used a specific scale for self-esteem measurement which titled Rosenberg Self-Esteem (RSE). This is a 14 item scales which is rank on (4) point scale, but we modified it to three point scale due to expert's suggestion [(12)].

The data collection was done by applying of the developed questionnaire with aid of structured interview technique with the subjects as they were individually interviewed. The study subjects are interviewed in a similar way. The interview technique spends about 20-25 minutes for each subject.

Statistical Analysis

The data were analyzed by using statistical methods to evaluate the study result:

- Descriptive Data Analysis: This approach includesthe following measurements:

A- Frequencies andPercentages. B- Mean of scores (MS) C- Pearson's Correlation Coefficients to determine the reliability of questionnaire (Internal consistency) through using Split Half.

- Inferential data analysis: include Chi-Square test (X^2) to test the association between the studies variables according to its type.

RESULTS

Table (1):Statistical distribution of the studied sample according to their demographic data

Demographic data	Rating and Intervals	HCV		HBV	
		Freq.	Percent	Freq.	Percent
Age / Years	<= 10	0	0.0%	2	5.0%
	11 - 21	3	10.3%	3	7.5%
	22 - 32	7	24.1%	10	25.0%
	33 - 43	8	27.6%	7	17.5%
	44 Up	11	**37.9%**	18	**45.0%**
Gender	Male	21	**72.4%**	20	**50.0%**
	Female	8	27.6%	20	**50.0%**
Levels of educations	Not read and write	9	**31.0%**	10	25.0%
	Read and write	3	10.3%	6	15.0%
	Primary school	5	17.2%	16	**40.0%**
	Middle school	5	17.2%	2	5.0%
	Secondary school	3	10.3%	3	7.5%
	Institute	1	3.4%	2	5.0%
	College	2	6.9%	1	2.5%
	Postgraduate	1	3.4%	0	0.0%
Monthly income	Enough	10	34.5%	8	20.0%
	Somewhat enough	7	24.1%	15	37.5%
	Not enough	12	**41.4%**	17	**42.5%**
Residence	Rural	9	31.0%	14	35.0%
	Urban	20	**69.0%**	26	**65.0%**
Marital status	Single	3	10.3%	8	20.0%
	Married	23	**79.3%**	27	**67.5%**
	Divorced	2	6.9%	1	2.5%
	Widowed	1	3.4%	3	7.5%
	Separated	0	0.0%	1	2.5%
Occupation status	Retired	2	6.9%	4	10.0%
	Housewife	8	**27.6%**	18	**45.0%**
	Employee	7	24.1%	1	2.5%
	Jobless	7	24.1%	12	30.0%
	Free job	5	17.2%	5	12.5%
Total		**29**		**40**	

N (100); Non-significant at p-value > 0.05; S, significant at p-value < 0.05; HS, highly significant at p-value < 0.01

Table (1) reveals that the high percentage of both groups participant at age groups (44 Up) years, (37.9%) in the HBV and (45%) in the HCV. In addition, the table shows that the high percentages of participant at gender (72.4%) are males in the HBV, (50%) are males and (50%) are female in the HCV. Regarding the level of education, the highest percentage is (31.0%) of the sample in HBV are not read and write, and (40.0%) of the HCV are primary school. The monthly income of the study sample are (41.4%) in HBV and (42.5%) in HCV are not enough. Concerning residency, (69%) of the HBV and (65%) of the HCV are urban residency. Regarding the marital status of the study sample are (79.3%) in HBV, and (67.5%) of HCV are married. The occupation status of the study sample are (27.6%) in HBV and (45.0%) in HCV are housewife.

Table (2): Statistical distribution of the studied sample according to their clinical data

Clinical Data	Rating and Intervals	HCV		HBV	
		Freq.	Percent	Freq.	Percent
disease duration since diagnosis	<= 5	15	51.7%	18	45.0%
	6 - 10	3	10.3%	6	15.0%
	11 - 15	1	3.4%	6	15.0%
	16 Up	10	34.5%	10	25.0%
Associated disease	Ischemic heart disease	8	27.5%	5	12.5%
	Renal disease	10	34.4%	26	65%
	Diabetes mellitus	9	31%	7	24.1%
	Liver disease	2	6.8%	2	5%
used treatment for long time	Yes	10	34.5%	32	80.0%
	No	19	65.5%	8	20.0%
do you smoker	Yes	7	24.1%	4	10.0%
	No	22	75.9%	36	90.0%
How many Cigarette/day	0	22	75.9%	36	90.0%
	20	1	3.4%	0	0.0%
	40	5	17.2%	3	7.5%
	60	1	3.4%	1	2.5%
do you drink alcohol	Yes	1	3.4%	0	0.0%
	No	28	96.6%	40	100.0%
BMI	Under weight	0	0.0%	3	7.5%
	Normal	20	69.0%	22	55.0%
	Over weight	9	31.0%	14	35.0%
	Obese	0	0.0%	1	2.5%
Total		29		40	

This table shows, that the majority of study subgroups are : duration of diseaseis less or equal 5 years in both study (51.7%) in HBV and (45.0%) in HCV, respectively, associated disease, the subgroup with Renal disease and diabetes mellitus (20,7%) in HBV and (37,5%) for the HCV. Used treatment for long time, the highest percentage is (65.5%) of the sample in HBV are not used and (80.0%) of the HCV are used treatment**,** do you smoker, the highest percentage is (75.9%) of the sample in HBV and (90.0%) of the HCV are not smoker**,** drink alcohol, the majority of study sample are (96.6%) in HBV and (100.0%) of the HCV are not drink alcohol. The body mass index of the study sample are (69%) in HBV and (55%) in HCV are normal weight.

Table (3): Statistical relationship of the self-esteem of studied sample according to their Demographic data.

Demographic data	Rating and Intervals	HCV	HBV
Age / Years	X^2	10.145	6.108
	df	3	4
	Sig.	.017	.191
Gender	X^2	.440	.400
	df	1	1
	Sig.	.507	.527
Levels of educations	X^2	6.573	9.114
	df	7	6
	Sig.	.475	.167
Monthly income	X^2	9.419	2.696
	df	2	2
	Sig.	.009	.260
Residence	X^2	2.565	.440
	df	1	1
	Sig.	.109	.507
Marital status	X^2	.742	5.537
	df	3	4
	Sig.	.863	.236
Occupation status	X^2	.925	4.422
	df	4	4
	Sig.	.921	.352

This table shows, that there is not significance between self-esteem and demographic data in all items, except at item that are **(**age, and monthly income) their high significance at p-value < 0.01, in HBV and not significance in all items in HCV.

Table (4):Statistical relationship of the self-esteem of studied sample according to their clinical data.

Clinical Data	Rating and Intervals	HCV	HBV
disease duration since diagnosis	X^2	6.721	.000
	df	3	3
	Sig.	.081	1.000
Associated disease	X^2	7.606	2.358
	df	8	5
	Sig.	.473	.798
used treatment for long time	X^2	.136	.000
	df	1	1
	Sig.	.713	1.000
do you smoker	X^2	2.097	.000
	df	1	1
	Sig.	.148	1.000
How many Cigarette/ day	X^2	4.374	1.333
	df	3	2
	Sig.	.224	.513
do you drink alcohol	X^2	.545	.
	df	1	.
	Sig.	.460	.
BMI	X^2	.573	1.619
	df	1	3
	Sig.	.449	.655

Table (4) shows that there is no significant association between self-esteem and all variables in clinical data.

Table (5):Overall relationship between the patients' hepatitis (B,C) and their self-esteem

Demographic data		HCV		M. S	Assess.	HBV		M. S	Assess.	P-value
		Freq.	Percent			Freq.	Percent			
Self-Esteem	Unsatisfied	10	34.5%	2.45	satisfied	20	50.0%	*2.39*	satisfied	X^2=1.64 df=1 Sig. 0.199 (NS)
	Satisfied	19	65.5%			20	50.0%			

Cuffoff : =<2.38 (un satisfied), > 2.38 (satisfied)

This table shows no significant relationship between the overall patients' hepatitis (B,C) and their self-esteem score at P-Value (0.199).

DISCUSSION:

The results of the present study show that the high percentage of both participant at age groups more than 44 years. This result matches with the result of Khan, et. al., (2011) who found in his study that the majority of the study subject's age were between (41-50) years old. Also Park, & Choi, (2017) they mentioned that the majority of the sample age ≥40 years old[13,14].

About the study subjects gender, the high percentage were accumulated around male in both groups as Zhang, et. al., (2015) in his study, they mentioned that there is high percentage of study sample are male[15].

Regarding to study sample level of education, the present study indicates that the highest percentage in HBV are not read and write, and HCV are primary school. These results are in agreement with Al Humayed, (2016) in their study, they mentioned that there is high percentage of study sample are illiterate. Also supported by Ganczak, et al. (2016) they found that the majority of study sample are illiterate[16,17].

Concerning to monthly income, the highest percentage of both groups are not enough. This result agrees with Abera, et al., (2017);Akcam, et al., (2009) in their study who mentioned that the majority of both groups are insufficient[18,19].

Relative to the residency, the present study shows that the majority of both groups are living in urban residential area. This result agree with the result of Jang, et al., (2015); Sharma, et al., (2015) they mentioned that both groups are living in urban residential area. This results may come due patients who live in urban more vulnerable to pollutants and chemicals such as; polluted air from factories, vehicles and electric generators. In addition, frequent use of detergents, cosmetic and pesticides[20,21].

In addition, the marital status, the present study indicates that the highest percentage of both groups are married. These results are in agreement with Zhang, et. al., (2013) in this study, the mentioned that there is high percentage of study sample are married. Also supported by Kim, et al. (2015) they found that the majority of study sample are married[22,23].

Concerning to occupation, the most of both groups are housewives. This result came along with Abolghasemi, et al., (2017) Wondimeneh, et al., (2013); in their study that the majority of study sample are housewives[24,25].

Regarding duration of disease, the higher percentage for both groups are suffering from the disease for period less or equal 5 years. The finding is consistent with results of Tamayo, et al., (2016) in their study that hypertension duration of the subjects was less than 1 year in 49% of the subjects[26].

The present study show that the majority of both groups suffering from associated disease are renal disease. This result comes along with Chan, et al., (2016); Deray, et al., (2015) they mentioned that the majority of study group are with chronic kidney disease[27,28].

The study shows that most of the patients in both groups are non-smokers. In study done by Goh, et al. (2014) they found that the majority of the study subjects is non-smoker[29].

With regard to alcohol consumption, the majority of the sample don't use alcohol. This result reflects the reality of Al-Najaf Al-Ashraf society as a religious one with a conservatory traditions and culture. This finding agrees with the result Ohishi, et al. (2011); Chen, et al. (2008) in their study that the alcohol taking habit of the respondents showed that majority of the total respondents were non-alcoholic[30,31].

Concerning to body mass index, the highest percentage of both study groups are normal weight. This result agrees with Park, et. al., (2014) in their study they mentioned that the majority of both groups are normal weight[32].

In addition, this study shows that there is not significance between self-esteem and demographic data in all items, except at item that are (age, and monthly income) their high significance at p-value < 0.01, in HBV and not significance in all items in HCV. The results of the present study agree with other studies that indicated not significant associations between demographic data and self-esteem, Ibrahim, &Madian, (2011). While there is a significant relationship with (age, and monthly income). This result comes along with Tran, et al., (2018) in their study; they found that the age and type of family have association with hepatitis[33,34].

Also there is a non-significant association between patients' hepatitis (B,C) and their self-esteem. This result agrees with Dam, et al. (2016); Rafique, et al. (2013) they mentioned in their study that, there is haven't relationship between patients' hepatitis (B,C) and self-esteem[35,36].

CONCLUSIONS:

The majority of hepatitis patients are male, with age more than 44.The majority of the hepatitis patients with urban residential area.The most common associated diseases with hepatitis are renal disease.No significant relationship between patients' hepatitis (B,C) and self-esteem.

RECOMMENDATIONS:

1. The Director of Health Services should set up a program for health education and promotion of awareness and treatment of hepatitis.
2. Needs for more studies to detect hepatitis and explore other risk factors associated with hepatitis.
3. Modifying their behavior that permit transmission of HBV and HCV to reduce the burden disease on self-esteem of infection patient.

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