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Original Article

Social Support, Social Isolation, And Quality of Life Among Patients with Hepatitis A, B, And C

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ABSTRACT

Hepatitis is a group of viral infections that affect the health and social life of an individual. **Objective:** To explore the association and the role of perceived social support, and social isolation, and their impact on quality of life among patients who have hepatitis type A, B, and C. **Methods:** A total of 500 participants were taken from the different areas urban and rural areas of Faisalabad. The participant's age ranges were between 18 to 55 years. The sample consisted of married participants (n=355, 71%) and unmarried were (n=145, 29%). A further sample was classified into hepatitis A (n=50, 10%), B (n=225, 45%), and C (n=225, 45%). A purposive sampling technique was used to collect the data. The following measures were used to assess the findings i.e., Demographic Form, Social Disconnectedness Scale, Multidimensional Scale of Perceived Social Support, and World Health Organization Quality of Life-BREF scale was used to assess the quality of life. **Results:** The analyses reveal that patients with type C of Hepatitis are significantly different on the Social Disconnectedness Scale and the subscales of friends and family are significantly different on the Multidimensional Perceived Social. Furthermore, Analysis of Variance showed that there was a significant difference on each subscale of the World Health Organization Quality of Life-BREF among patients with Hepatitis A, B and C [$p<0.01$]. **Conclusions:** It was concluded that social isolation negatively influences patient's quality of life, the social support plays a vital role in improving patients' quality of life.

INTRODUCTION

Hepatitis is one of the health issues all over the world. It has diverse results on patients' lives [1]. Chronic viral hepatitis infects with regards to four hundred million individuals globally and every year causes one million deaths due to infectious liver disease [2]. Clinically, individuals with the infectious disease have a high threat of liver injury, approximately four-hundredth of infected patients finally experience cirrhosis of the liver, liver collapse, or malignant hepatoma throughout the way of viral hepatitis B virus (HBV) infection. The viral hepatitis C virus is the most significant worldwide reason of liver infection, liver injury, and liver morbidity [3]. Viral hepatitis A and B are largely spread out by impure food and water. Viral hepatitis C is generally sexually transmitted, however may even be passed from mother to baby throughout birth [4]. Each viral hepatitis B and viral hepatitis C is typically spread out through contaminated blood and might occur through needle sharing by endogenous drug users [5]. Hepatitis C and B viruses, or HCV and HBV, are two of the main causes of severe liver disease, which includes end-stage liver disease linked to cirrhosis and hepatocellular carcinoma [6]. According to estimates from the World Health Organization (WHO), 170 million people globally have chronic HCV infection and 350 million people have chronic

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HBV infection [7]. Pakistan is one of the most severely affected countries due to its enormous population (165 million) and intermediate to high rates of infection [8]. In the developed world, HCV accounts for two-thirds of liver transplants and 50–76 percent of cases of liver cancer [9]. Hepatitis B-related liver cancer mostly affects immigrants from nations with high hepatitis B endemicity, while hepatitis C virus infection is the main cause in most Western countries [10]. Most poor nations have a high burden of hepatitis B virus (HBV) infection due to the virus's widespread distribution, especially in rural areas, and the high expense of treatment, management, and prevention [11]. The incidence of hepatitis differs between nations and occasionally within a single nation's various regions. In several nations in Africa, Latin America, Central America, and South-East Asia, it is high (>2 percent). Prevalence rates ranging from 5% to 10% are commonly reported in these nations. With an estimated 16,094,3000 people living there, Pakistan is the sixth most populated nation in the world. The prevalence rate of HCV in Pakistan varies between the four provinces; it is claimed to be 6.7% in Punjab, 5% in Sindh, 1.5% in Baluchistan, and 1.1% in Khyber Pakhtunkhwa [12].

Hence the current study aims to explore the association and the role of perceived social support, and social isolation, and their impact on quality of life among patients who have hepatitis type A, B, and C. Viral hepatitis not only affects the physical health of an individual, it also influences the emotional and mental health of the individuals who have hepatitis. In our society, people usually avoid or hate patients with hepatitis due to their disease and fear of transmission of disease. The current study highlights the importance of perceived social disconnectedness; social support and health-related quality of life among hepatitis patients.

METHODS

A cross-sectional study was conducted and the sample size was calculated using formula N>50+8K. The extracted sample size was n=400 and a total of 650 patients were screened and 500 patients of hepatitis A, B, and C met the study inclusion and exclusion criteria with ages ranging from 25 to 50 years. The sample was collected from different public and private hospitals in Faisalabad through a purposive sampling technique from August 2022 to September 2023. Participants were taken to live alone or with non-blood relations (i.e., roommate, colleague friend, etc.) and they are under treatment. Patients were taken from low- and middle-income groups. Patients with medical and psychiatric comorbidity, and physical and intellectual disability were excluded. Patients with mild, moderate, and severe rage were taken but extremely severe cases were excluded. An in-depth clinical interview was conducted to get a history of the problems/illness. In Social Disconnectedness Scale (SDS) 8 items were designed to assess patients' level of social isolation during illness [13]. It is rated from seldom or never (1) a number of the time (2) and infrequently (3). The scale has acceptable internal consistency, with an alpha of .73 and moderate to strong item-rest correlations. In Multidimensional Scale of Perceived Social Support (MSPSS) Urdu version was used to assess patients perceived social support during the period of illness [14]. MSPSS consists of 12 items which is rated from terribly powerfully disagree (1) to powerfully agree (7). It has three subscales, such as family, friends, and significant other. MSPSS reliability is estimated at .85 to .91 with test-retest reliability at 72 to .85. In World Health Organization Quality of Life-BREF (WHOQL1991) was developed to assess patients' quality of life during illness. It consists of four domains i.e., physical health, emotional health, social relations, and setting. It consists of 26 items. Scale is good reliability, test-retest reliability, and validity. The raw score of each domain was then moved to the standardized score of zero to a hundred, to take care of consistency in scores [15]. Initially, the study protocol was submitted to the Ethical Research Committee (ERC), and the study was approved by the Board of Studies (BOS) final approval was taken from the Institutional Review Board (IBR) on 18-8-2023, Government College University Faisalabad. The researcher briefly described the participants about the purpose of the study. After it informed consent was given to patients and they were asked to read and sign it if you are willing to participate in the study. it was assured the received information will remain kept confidential and you have a right to withdraw from the study anytime, if you feel discomfort. Descriptive statistics and One-Way Analysis of Variance were used on the Multidimensional Scale of Perceived Social Support, Social Disconnectedness Scale, and World Health Organization Quality of Life-BREF among patients with Hepatitis A, B, and C. Statistical Package for Social Sciences (SPSS) version twenty-one were used to perform all analyses.

RESULTS

Findings in table 1, one way analysis of variance showed that there was a significant difference on Social Disconnectedness Scale among patients with Hepatitis A, B and C [$F(14.50)$, $p<0.01$]

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Table 1: Descriptive statistics and One-Way Analysis of Variance on the Social Disconnectedness Scale (SDS) among patients with Hepatitis A, B and C (N=402)

Variables	N	Mean + SD	SE	MS	F	P	95% CI	
							LL	UL
A	116	38.16 + 7.777	.722	595.075	14.505	.000	36.72	39.59
B	152	37.72 + 7.012	.569	41.025	-	-	36.59	38.84
C	134	34.28 + 3.867	.334	-	-	-	33.62	34.94

Note: p<.05
SS = Sum of Squares, MS = Mean Square
Findings in table 2, one way analysis of variance showed that there was a significant difference subscale of family and friend (p< 0.01). Furthermore, results indicate whether there are statistically significant differences in perceived social support among the groups

Table 2: Descriptive statistics and One-Way Analysis of Variance on the Multidimensional Scale of Perceived Social Support among patients with Hepatitis A, B and C (N=402)

Variables		N	Mean + SD	SE	MS	F	P	95% CI	
								LL	UL
Social	1.00	116	19.79 + 3.38	.31	40.27	3.35	.036	19.16	20.41
	2.00	152	20.00 + 3.42	.27	12.02	-	-	19.45	20.54
	3.00	134	20.84 + 3.57	.30	-	-	-	20.23	21.45
Family	1.00	116	19.87 + 3.60	.33	71.54	5.90	.003	19.21	20.54
	2.00	152	20.04 + 3.08	.25	12.11	-	-	19.55	20.54
	3.00	134	21.23 + 3.77	.32	-	-	-	20.58	21.87
Friends	1.00	116	19.35 + 3.94	.36	96.38	7.43	.001	18.62	20.07
	2.00	152	19.55 + 3.31	.26	12.95	-	-	19.02	20.08
	3.00	134	20.92 + 3.59	.31	-	-	-	20.31	21.54
MPSS	1.00	116	59.02 + 9.31	.86	605.62	8.11	.000	57.31	60.73
	2.00	152	59.59 + 7.57	.61	74.62	-	-	58.38	60.81

Note: p<.05
SS = Sum of Squares, MS = Mean Square, MPSS = Multidimensional Perceived Social Support.
Findings in table 3, one way analysis of variance showed that there was a significant difference on each subscale of the World Health Organization Quality of Life-BREF among patients with Hepatitis A, B and C [p<0.01]

Table 3: Descriptive statistics and One-Way Analysis of Variance on the World Health Organization Quality of Life-BREF among patients with Hepatitis A, B and C (N=402)

Variables		N	Mean + SD	SE	MS	F	P	95% CI	
								LL	UL
phy	1.00	116	20.53 + 3.09679	.2875	172.94	26.98	.000	19.9649	21.1040
	2.00	152	21.23 + 2.28655	.1856	6.409	-	-	20.8704	21.6033
	3.00	134	22.80 + 2.23599	.1931	-	-	-	22.4239	23.1880
	Total	402	21.55 + 2.69070	.1342	-	-	-	21.2934	21.8210
psy	1.00	116	17.31 + 2.83027	.2627	175.41	27.72	.000	16.7984	17.8395
	2.00	152	17.60 + 2.30507	.1869	6.327	-	-	17.2359	17.9747
	3.00	134	19.44 + 2.45430	.2120	-	-	-	19.0284	19.8671
	Total	402	18.1 + 2.67783	.1335	-	-	-	17.8743	18.3994
soc	1.00	116	9.069 + 1.90981	.1773	38.313	14.46	.000	8.7177	9.4202
	2.00	152	9.664 + 1.74517	.1415	2.649	-	-	9.3848	9.9442
	3.00	134	10.17 + 1.15590	.0998	-	-	-	9.9816	10.3766
	Total	402	9.664 + 1.68140	.0838	-	-	-	9.4993	9.8290
Env	1.00	116	23.74 + 3.91012	.3630	202.04	20.13	.000	23.0223	24.4605
	2.00	152	24.46 + 3.06209	.2483	10.036	-	-	23.9764	24.9578
	3.00	134	26.18 + 2.49862	.2158	-	-	-	25.7596	26.6135
	Total	402	24.83 + 3.31568	.1653	-	-	-	24.5057	25.1559
Tot	1.00	116	76.82 + 9.626	.894	2460.5	50.83	.000	75.05	78.59
	2.00	152	79.16 + 6.220	.505	48.404	-	-	78.16	80.15
	3.00	134	85.29 + 4.601	.397	-	-	-	84.50	86.08
	Total	402	80.53 + 7.774	.388	-	-	-	79.77	81.29

Note: p<.05
SS = Sum of Squares, MS = Mean Square, phy= physical health, psy= psychological health, Soc= social relationships, Env= environmental health, Tot= Total, WHOQL=World Health Organization Quality of Life-BREF

DISCUSSION

The finding of the first hypothesis is similar to previous research as negative health outcomes have been linked to perceived social isolation, which is a deficiency in typical human social interaction [16]. Psychological health service users have well-documented issues with social support and isolation [17]. Arising focus on isolation has also been determined by the detection of its high occurrence, and its broad-ranging impacts on physical health and mental health. Three earlier organized reviews have explored the association between social relationships and hopelessness in a common population [18]. One additional review looked at the association between social group and support and early psychosis in people with first-episode psychosis and common population examples but included no prospective studies [19]. Additionally, another finding showed that the relationship between social isolation and quality of life was examined. The results showed that quality of life is significantly and negatively related to social isolation (r= -.273; p< .001). Isolation is one of the foremost vital health problems that has been associated with depression and weakened quality of life among older adults [20]. Though, older adults with a lot of social support were expected to own low isolation and depression [21]. Notably, the support of relatives also as friends will create a big involvement in older adults' well-being [22]. This social organization will offer older adults a way of happiness, because of the importance of rising health and eudemonia problems among older individuals, a variety of studies have been performed to find connected factors connected with the standard of life and health for the individuals [23, 24]. Quality of life that is related to health seems as a big reflection within the care of patients with persistent viral hepatitis [25]. However, whether or not advantages from improved health connected to quality of life that arise once

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associate antiviral treatment or drugs conclusion compensate for the risks of microorganism decline is an unreturned question [26]. Social support is a vital feature for the health improvement of patients. It helps in development the of psychological comfort and flexibility; whereas a lack of social support poorly affects the patient's improvement [27]. Despite the clinical challenges that treatment with an antiviral drug in patients with chronic infectious disease and co morbidities represents, recent studies specify the fact that treatment is administrated in secure circumstances at patients with chronic infectious disease infection and medical specialty disorders [28]. Furthermore, the findings indicate that health connected quality of life may be a multifactor construct that explains individuals' observations of their physical, emotional, and social performance. Therefore, Health connected quality of life may be a more holistic analysis than medical parameters, principally in chronic ill health during which death is not an instantaneous concern, as a result of it additionally reflects on a patient's sensible health and well-being. Therefore, differentiate the health connected quality of life time of infectious hepatitis patients has suggestion for patient awareness of the requirements for treatment, obedience toward follow-up, the requirement of treatment, and usually management of infectious hepatitis disease [29]. Communication among patients and providers can have a main impact on the supposed and real quality of concern. Relations play a major role in patients' general satisfaction, still as obedience with approved treatment, which might modify health results [30]. Moreover, the findings show that the quality of life has significantly affects among patients with hepatitis A, B and C [$F(2,497) = 13.140$, $p < 0.05$]. Further, the multiple comparison of patients with hepatitis A, B and C on the variable of quality of life by one-way ANOVA. The findings show that patients with hepatitis A, B and C have significantly different on the variable of quality of life ($p < 0.05$). Patients with viral hepatitis A have higher quality of life than the patients with hepatitis B. And patients with hepatitis B have higher level quality of life than the patients with infectious hepatitis C. Health connected quality of life is significantly affected in chronic hepatitis B virus patients, largely in those with additional severe variety of the infection [31]. Chronic viral hepatitis infection patients have advanced rates of medical specialty disorders than the common population. Chronic viral hepatitis infection is recognized to be related to broken health-connected quality of life [32].

CONCLUSIONS

It is concluded that social isolation negatively influences patient's quality of life, the social support plays a vital role in improving patients' quality of life. Social support is very important for patients with hepatitis A, B, and C regarding management the of infectious diseases. The patients who received support from their family, friends, and other significant sources, have a better quality of life as compared to the patients who did not receive the support.

Authors Contribution

Conceptualization: HI
Methodology: HI, SK, MS
Formal analysis: HI, SK, AU
Writing-review and editing: HI, MGN, SK, MS, AU

All authors have read and agreed to the published version of the manuscript.

Conflicts of Interest

The authors declare no conflict of interest.

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