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Differences in Depressive Symptoms, Perceived Social Support, and Quality of Life among Patients with Hepatitis C and Psychiatric Patients: A Cross-Sectional Study

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ABSTRACT

Hepatitis is a series of viral illnesses that can impact a person's health and social life. **Objective:** To investigate the differences in depressive symptoms, perceived social support, and quality of life among the normal population, patients with Hepatitis C, and patients with psychiatric disorders. **Methods:** 402 participants were taken from Faisalabad's different urban and rural areas. The participants 'ages ranged from 25 to 54 years. The sample consisted of married participants (n=189, 47%) and unmarried participants (n=213, 53%). A purposive sampling technique was used to collect the data. The following measures were used to assess the findings: Demographic Form, Patient Health Questionnaire, Multidimensional Scale of Perceived Social Support, and World Health Organization Quality of Life-BREF scale. **Results:** The findings revealed that patients with hepatitis C and patients with psychiatric disorders perceived a high degree of depression as compared to individuals having no history of medical and psychiatric treatment. Similarly, patients with hepatitis C and patients with psychiatric disorders perceived a low degree of social support and quality of life as compared to individuals having no history of medical and psychiatric treatment. **Conclusion:** In this study, depression, perceived social support, and quality of life were found to significantly differ between the general population, Hepatitis C patients, and people with a mental health condition.

INTRODUCTION

Hepatitis C Virus (HCV) infection continues to be a substantial public health concern on a global scale, affecting millions of individuals through its chronic progression and long-term complications [1]. The disease, which is predominantly transmitted through blood-to-blood contact, can result in severe liver damage, such as cirrhosis and hepatocellular carcinoma [2]. Hepatitis C and mental illnesses are both chronic health problems that can have a major impact on people's psychological well-being, social interactions, and general quality of life. The impact of HCV and its psychological effects are exacerbated when combined with pre-existing mental health issues. It is essential to comprehend how depression, psychiatric illness [3]. Patients with chronic HCV are more likely to

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experience depressive symptoms, especially among those who contracted the virus through intravenous drug use or other marginalized behaviors, which are all responsible for this [4]. Furthermore, even though antiviral medications have revolutionized the treatment of HCV, the disease's psychological toll has not completely decreased. Compared to older treatments like interferon, newer direct-acting antiviral drugs have lessened neuropsychiatric side effects, although patients still experience a significant psychological burden [5]. It is commonly known that people with HCV have a comorbidity of mental illnesses. Anxiety, schizophrenia, personality disorders, and substance use problems have all been found to be more common in this group [6]. Depressive symptoms can exacerbate the social isolation that many patients already experience, interfere with coping strategies, and make it more difficult to start and finish HCV therapy. HCV may act as an extra stressor for people who already have psychiatric illnesses, aggravating pre-existing mental health issues and perhaps resulting in worse overall outcomes [7]. In contrast, the diagnosis of HCV in an individual with a psychiatric disorder may exacerbate psychological symptoms, especially if the disease is advanced or the individual is subjected to social stigma [8]. This cross-sectional study identified that sociodemographic, psychopathological, and psychiatric factors significantly impact the health-related quality of life in patients with chronic hepatitis C [9]. Addressing the trio of psychiatric diseases, HCV, and depression demands a holistic strategy that takes into account not just the medical bases of these disorders but also the social, psychological, and structural elements that determine health trajectories [10].

The objectives of this study were to examine the differences in levels of depression, perceived social support, and quality of life among the normal population, patients with hepatitis C, and patients with psychiatric disorders.

METHODS

In this study, cross-sectional study design was used. This study was conducted from March 2023 to February 2024. The present study was approved by the Institutional Review Board of Government College University, Faisalabad (Ref/GCUF/ERC/4670, IRB No. 791). A total of 402 participants were taken from different tertiary care hospitals. The study sample size was extracted using G-Power Software and the estimated sample was below 400 participants; and a sample of 402 participants was collected. A convenient sample technique was used to collect the sample. The study sample consisted of three different participants general population (category=1), patients with hepatitis-C (category=2), and psychiatric patients (category=3). Psychiatric patients with infectious hepatitis C participated in the study. Patients with hepatitis were recruited from Faisalabad's public and private clinics and hospitals. Infectious hepatitis C patients with psychiatric problems were chosen from various Faisalabad neighborhood locations as well as rural and urban areas. Patients from all socioeconomic backgrounds were included (i.e., low, middle, high). The study did not include patients with hepatitis E or D. Participants were excluded if they had co-occurring diseases. Participants with viral hepatitis A, B, and C who were younger than 18 or older than 55 were excluded from the study. Patients who were not Faisalabad residents were excluded from the trial. The following instruments were used in the current study to measure the variables. Information such as personal details (name, age, education, legal status, and family status) and medical history (disease duration, severity, and length of therapy) were obtained using the demographic form. A popular, trustworthy, and validated self-report tool for screening, diagnosing, tracking, and assessing the severity of depression is the Patient Health Questionnaire-9 (PHQ-9). Using a four-point Likert scale from 0 ("Not at all") to 3 ("Nearly every day"), each item evaluates the frequency of depression symptoms during the last two weeks, including low mood, loss of interest or pleasure, exhaustion, sleep difficulties, and thoughts of self-harm. Higher scores indicate more severe depressive symptoms; the total score goes from 0 to 27. Minimal (0–4), mild (5–9), moderate (10–14), fairly severe (15–19), and severe (20–27) are the usual classifications for severity [11]. MPSS's twelve things' responses were on a seven-point Likert scale from very strongly disagree (1) to very strongly agree (7). To measure the perceived support from family, friends, and excellent friends, the twelve-item MPSS was created. In the original study Zimet *et al.*, in 1998, 200 and seventy-five university undergraduate men and women completed the Hopkins symptoms list HSCL *et al.*, in 1974 and MPSS [11]. The subscales and total scale had constant alphas85 to91, indicating good internal consistency [12]. Additionally, test-retest consistency values were72 to85, indicating sensible constancy. Major correlations between HSCL depression and anxiety subscales and MPSS subscales showed construct validity [12]. World Health Organization Quality of Life development began in 1991. WHOQOL-BREF has 4 domains. Four WHOQOL-BREF domains support twenty-six items: Domain one, physical health, covers daily activities, medication use, energy and tiredness, mobility, pain and anxiety, sleep and relaxation, and workability. Physical appearance, bad thoughts, positive sentiments, shallowness, spiritual studies, religion, personal perspective, thinking, learning, memory, and a spotlight are in Domain 2. Personal relationships, social support, and gender are covered in Domain 3. Domain 4 evaluates

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economic resources, independence, physical protection and security, health and social care. This study collected data from infectious Hepatitis C and psychiatric patients. All subjects gave informed consent before data collection. Participants were briefed on the study's purpose and completed a self-developed demographic form and standardized instruments like PHQ-9, the Multidimensional Scale of Perceived Social Support (MSPSS), and the WHO-QOL in Urdu for clarity and accessibility. After months of data collecting, responses were coded and input into a computer for statistical analysis. Descriptive and inferential statistics provided insights, and the thesis was proofread, supervisor-reviewed, and submitted. Descriptive statistics were calculated to better summarise the statistical view of the sample demographics. In addition to the descriptive statistics, the inferential statistic was calculated to draw a meaningful conclusion from the data [13].

RESULTS

Individuals, 51.5% male (n = 207) and 48.5% female (n = 195). The plurality (38.3%) of participants is aged 25–34 (n = 154), followed by 33.1% aged 45–54 (n = 133), and 28.6% aged 35–44 (n = 115). Educational background: 29.6% had completed middle school (n = 119), 29.4% had completed matriculation (n = 118), 14.9% had an FA (n = 60), 16.9% had a BA (n = 68), and 9.2% had an MA (n = 37). The sample was 53% single (n = 213) and 47% married (n = 189). Rural residents comprised 69.7% of the sample (n = 280), while urban residents comprised 30.3% (n = 122). 23.6% of participants were sick for less than 6 months (n = 95), 33.6% for 6 to 12 months (n = 135), and 42.8% for more than one year (n = 172).

Table 1: Demographic Characteristics of the study participants

Variables	Category	Frequency (%)
Gender	Male	207 (51.5)
	Female	195 (48.5)
Age	25-34	154 (38.3)
	35-44	115 (28.6)
	45-54	133 (33.1)
Education	Middle	119 (29.6)
	Metri	118 (29.4)
	FA	60 (14.9)
	BA	68 (16.9)
	MA	37 (9.2)
Marital Status	Single	213 (53.0)
	Married	189 (47.0)
Residence	Rural	280 (69.7)
	Urban	122 (30.3)
Duration of Illness	< 6 months	95 (23.6)
	6-12 months	135 (33.6)
	>1 year	172 (42.8)

Findings reveal (Table 2) that patients with hepatitis C and patients with psychiatric disorders perceived a high degree of depression as compared to the individuals having no history of medical and psychiatric treatment. Similarly, patients with hepatitis C and patients with psychiatric disorders perceived a low degree of social support and quality of life as compared to individuals having no history of medical and psychiatric treatment.

Table 2: Mean, Standard Deviation, ONE-WAY ANOVA Statistics among the General Population, Patients with Hepatitis C and Psychiatric Patients

Variables		N	Mean ± SD	Std. Error	MS	F	P	95% Confidence Interval for Mean	
								Lower Bound	Upper Bound
PHQ-9	1.00	116	38.16 ± 7.77	0.722	595.075	14.505	<0.000	36.72	39.59
	2.00	152	37.72 ± 7.01	0.569	41.025			36.59	38.84
	3.00	134	34.28 ± 3.86	0.334	-			33.62	34.94
	Total	402	36.70 ± 6.61	0.330	-			36.05	37.35
SOS	1.00	116	19.79 ± 3.38	0.31469	40.276	3.350	<0.036	19.1698	20.4164
	2.00	152	20.00 ± 3.42	0.27786	12.022			19.4510	20.5490
	3.00	134	20.84 ± 3.57	0.30919	-			20.2317	21.4548
	Total	402	20.22 ± 3.48	0.17394	-			19.8794	20.5633
FMS	1.00	116	19.87 ± 3.60	0.33491	71.542	5.907	<0.003	19.2159	20.5427
	2.00	152	20.04 ± 3.08	0.25019	12.112			19.5517	20.5404
	3.00	134	21.23 ± 3.77	0.32650	-			20.5855	21.8771
	Total	402	20.39 ± 3.52	0.17569	-			20.0476	20.7384
FRS	1.00	116	19.35 ± 3.94	0.36657	96.380	7.439	<0.001	18.6274	20.0795
	2.00	152	19.55 ± 3.31	0.26857	12.956			19.0220	20.0833
	3.00	134	20.92 ± 3.59	0.31077	-			20.3107	21.5401
	Total	402	19.95 ± 3.65	0.18238	-			19.5942	20.3113
MPSS	1.00	116	59.02 ± 9.31	0.86498	605.622	8.116	<0.000	57.3125	60.7392
	2.00	152	59.59 ± 7.57	0.61420	74.620			58.3851	60.8122
	3.00	134	63.00 ± 9.14	0.79040	-			61.4366	64.5634

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	Total	402	60.56 ± 8.79	0.43842	-			59.7053	61.4290
Domain-1	1.00	116	20.53 ± 3.09	0.28753	172.947	26.984	<0.000	19.9649	21.1040
	2.00	152	21.23 ± 2.28	0.18546	6.409			20.8704	21.6033
	3.00	134	22.80 ± 2.23	0.19316	-			22.4239	23.1880
	Total	402	21.55 ± 2.69	0.13420	-			21.2934	21.8210
Domain-2	1.00	116	17.31 ± 2.83	0.26278	175.413	27.723	<0.000	16.7984	17.8395
	2.00	152	17.60 ± 2.30	0.18697	6.327			17.2359	17.9747
	3.00	134	19.44 ± 2.45	0.21202	-			19.0284	19.8671
	Total	402	18.13 ± 2.67	0.13356	-			17.8743	18.3994
Domain-3	1.00	116	9.06 ± 1.90	0.17732	38.313	14.462	<0.000	8.7177	9.4202
	2.00	152	9.66 ± 1.74	0.14155	2.649			9.3848	9.9442
	3.00	134	10.17 ± 1.15	0.09985	-			9.9816	10.3766
	Total	402	9.66 ± 1.68	0.08386	-			9.4993	9.8290
Domain-4	1.00	116	23.74 ± 3.91	0.36305	202.042	20.132	<0.000	23.0223	24.4605
	2.00	152	24.46 ± 3.06	0.24837	10.036			23.9764	24.9578
	3.00	134	26.18 ± 2.49	0.21585	-			25.7596	26.6135
	Total	402	24.8 ± 3.31	0.16537	-			24.5057	25.1559
QLS	1.00	116	76.0 ± 9.62	0.894	2460.570	50.834	<0.000	75.05	78.59
	2.00	152	79.16 ± 6.22	0.505	48.404			78.16	80.15
	3.00	134	85.29 ± 4.60	0.397	-			84.50	86.08
	Total	402	80.53 ± 7.77	0.388	-			79.77	81.29

Note: p< .001, MS= Mean Square, 1= General Population, 2= Patients with Hepatitis-C, 3= Psychiatric Patients, PHQ-9= Patients Health Questionnaire-9, SOS= Significant Others Subscale, FMS= Family Subscale, FRS= Friend Subscales, MPSS= Multidimensional Perceived Social Support

Post-hoc comparisons (Table 3) showed that patients with hepatitis C were found to be significantly different from patients with psychiatric disorders and individuals having no history of medical and psychiatric treatment on the scale of depression and social support. Similarly, on the quality-of-life scale, all groups, such as patients with hepatitis C, patients with psychiatric disorders, and individuals having no history of medical and psychiatric treatment, were found to be significantly different.

Table 3: *Tukey* Comparisons among the General Population, Patients with Hepatitis C and Psychiatric Patients

Dependent Variable	(I) A1.B2.C3	(J) A1.B2.C3	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval for Mean	
						Lower Bound	Upper Bound
PHQ-9	1.00	2.00	0.438	0.790	0.844	-1.42	2.30
		3.00	3.879*	0.812	0.000	1.97	5.79
	2.00	1.00	-0.438	0.790	0.844	-2.30	1.42
		3.00	3.441*	0.759	0.000	1.66	5.23
	3.00	1.00	-3.879*	0.812	0.000	-5.79	-1.97
		2.00	-3.441*	0.759	0.000	-5.23	-1.66
SOS	1.00	2.00	-.20690	0.42747	0.879	-1.2125	0.7987
		3.00	-1.05018*	0.43972	0.046	-2.0846	-0.0157
	2.00	1.00	0.20690	0.42747	0.879	-0.7987	1.2125
		3.00	-0.84328	0.41086	0.101	-1.8098	0.1233
	3.00	1.00	1.05018*	0.43972	0.046	0.0157	2.0846
		2.00	0.84328	0.41086	0.101	-0.1233	1.8098
FMS	1.00	2.00	-0.16674	0.42907	0.920	-1.1761	0.8426
		3.00	-1.35203*	0.44137	0.007	-2.3904	-0.3137
	2.00	1.00	0.16674	0.42907	0.920	-0.8426	1.1761
		3.00	-1.18529*	0.41240	0.012	-2.1555	-0.2151
	3.00	1.00	1.35203*	0.44137	0.007	0.3137	2.3904
		2.00	1.18529*	0.41240	0.012	0.2151	2.1555

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FRS	1.00	2.00	-0.19918	0.44376	0.895	-1.2431	0.8448
		3.00	-1.57192*	0.45648	0.002	-2.6458	-0.4981
	2.00	1.00	0.19918	0.44376	0.895	-0.8448	1.2431
		3.00	-1.37274*	0.42652	0.004	-2.3761	-0.3694
	3.00	1.00	1.57192*	0.45648	0.002	0.4981	2.6458
		2.00	1.37274*	0.42652	0.004	0.3694	2.3761
MPSS	1.00	2.00	-0.57282	1.06499	0.853	-3.0782	1.9326
		3.00	-3.97414*	1.09551	0.001	-6.5513	-1.3970
	2.00	1.00	0.57282	1.06499	0.853	-1.9326	3.0782
		3.00	-3.40132*	1.02362	0.003	-5.8094	-0.9933
	3.00	1.00	3.97414*	1.09551	0.001	1.3970	6.5513
		2.00	3.40132*	1.02362	0.003	0.9933	5.8094
Domai-1	1.00	2.00	-0.70236	0.31212	0.064	-1.4366	0.0319
		3.00	-2.27149*	0.32106	0.000	-3.0268	-1.5162
	2.00	1.00	.70236	0.31212	0.064	-0.0319	1.4366
		3.00	-1.56913*	0.29999	0.000	-2.2749	-0.8634
	3.00	1.00	2.27149*	0.32106	0.000	1.5162	3.0268
		2.00	1.56913*	0.29999	0.000	0.8634	2.2749
Domain-2	1.00	2.00	-0.28630	0.31012	0.626	-1.0159	0.4433
		3.00	-2.12880*	0.31901	0.000	-2.8793	-1.3783
	2.00	1.00	.28630	0.31012	0.626	-0.4433	1.0159
		3.00	-1.84250*	0.29807	0.000	-2.5437	-1.1413
	3.00	1.00	2.12880*	0.31901	0.000	1.3783	2.8793
		2.00	1.84250*	0.29807	0.000	1.1413	2.5437
Domain-3	1.00	2.00	-0.59551*	0.20067	0.009	-1.0676	-0.1234
		3.00	-1.11014*	0.20642	0.000	-1.5957	-0.6245
	2.00	1.00	0.59551*	0.20067	0.009	0.1234	1.0676
		3.00	-0.51463*	.19287	0.022	-0.9684	-0.0609
	3.00	1.00	1.11014*	0.20642	0.000	0.6245	1.5957
		2.00	0.51463*	0.19287	0.022	0.0609	0.9684
Domain-4	1.00	2.00	-0.72573	0.39057	0.152	-1.6445	0.1931
		3.00	-2.44519*	0.40176	0.000	-3.3903	-1.5000
	2.00	1.00	0.72573	0.39057	0.152	-0.1931	1.6445
		3.00	-1.71946*	0.37540	0.000	-2.6026	-0.8363
	3.00	1.00	2.44519*	0.40176	0.000	1.5000	3.3903
		2.00	1.71946*	0.37540	0.000	0.8363	2.6026
QLS	1.00	2.00	-2.339*	0.858	0.018	-4.36	-0.32
		3.00	-8.472*	0.882	0.000	-10.55	-6.40
	2.00	1.00	2.339*	0.858	0.018	0.32	4.36
		3.00	-6.133*	0.824	0.000	-8.07	-4.19
	3.00	1.00	8.472*	0.882	0.000	6.40	10.55
		2.00	6.133*	0.824	0.000	4.19	8.07

Note: p< .001, MS= Mean Square, 1= General Population, 2= Patients with Hepatitis-C, 3= Psychiatric Patients, PHQ-9= Patients Health Questionnaire-9, SOS= Significant Others Subscale, FMS= Family Subscale, FRS= Friend Subscales, MPSS= Multidimensional Perceived Social Support

DISCUSSION

This study compared depression levels in the general population, Hepatitis C patients, and people with a mental health condition. These groups would differ significantly in terms of depression, as evaluated by the Patient Health Questionnaire-9, according to the hypothesis. The hypothesis is supported by the findings of the one-way analysis of variance (F = 14.505, p <0.001), which indicate a substantial difference in the levels of depressive symptoms across the three groups. Compared to psychiatric patients, the general population (M = 38.16, SD = 7.78) and patients with Hepatitis C (M = 37.72, SD = 7.01) reported higher PHQ-9 scores. In particular, the general population reported a mean score of 38.16, with a standard deviation of 7.78. These findings are consistent with the

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existing body of research, which provides evidence of the psychological impact that chronic illnesses and psychiatric problems have on individuals [14]. Furthermore, psychiatric patients face more direct psychological dysfunction, which may be the reason for the more severe depression symptoms that are reported in this group. This is in contrast to hepatitis C patients, who have physical sickness that might contribute to mental anguish [15]. Therefore, this may be a reflection of the influence that concomitant medical illnesses like hepatitis C have on psychological well-being, particularly when the condition is not treated or when persistent stresses, stigma, or a lack of access to mental health care accompany it. Additionally, extra context is revealed by examining relevant psychosocial variables, such as the degree to which one feels supported by society and the quality of one's life. Patients with psychiatric conditions and those with hepatitis C had lower scores on the Multidimensional Perceived Social Support (MPSS) scale when compared to the general population. This suggests that these patients have a lessened sense of support from their family, friends, and significant others [16]. In the second set of findings, it was found that the normal population reported much higher levels of felt social support in comparison to both patients with Hepatitis C and those with psychiatric problems. Based on the findings patients who suffer from psychiatric diseases reported the lowest levels of perceived social support. This is most likely due to the stigma that is associated with the condition, particularly when it is connected to activities such as injecting drugs [17]. The last hypothesis found significant group differences on the Quality-of-Life scale. In line with what was anticipated, the normal population reported the highest quality of life, followed by patients with hepatitis C, and finally, psychiatric patients scored the lowest. Existing research has shown that chronic physical illness and psychiatric illnesses hurt overall life satisfaction, physical functioning, and psychological well-being [18]. This tendency is consistent with the findings of those studies. In psychiatric patients, symptoms such as depression, anxiety, and cognitive abnormalities that have an impact on everyday functioning and interpersonal relationships may contribute to a lower quality of life [19, 20]. A study highlighted that cross-cutting symptoms, liver function, and perceived immune status predict quality of life in Hepatitis B and C patients, with social support and resilience acting as key mediators [20]. These symptoms may also make the quality of life even worse. In a similar vein, the negative effects of exhaustion, pain, and the psychological and social load of managing a chronic illness that is stigmatized can affect the quality of life of individuals who have Hepatitis C.

CONCLUSIONS

In this study, depression, perceived social support, and quality of life were found to significantly differ between the general population, Hepatitis C patients, and people with a mental health condition. While psychiatric patients displayed the greatest difficulties across all factors, the general population reported improved mental health, stronger social support, and a higher quality of life. These findings emphasize the necessity of psychological and social support interventions, particularly for clinical patients, to increase general well-being.

Authors Contribution

Conceptualization: MS, ML
Methodology: ZHS, AAK, IJ, AP
Formal analysis: MS
Writing, review and editing: IR, AU

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

Conflicts of Interest

All the authors declare no conflict of interest.

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REFERENCES

[1] Sallam M and Khalil R. Contemporary insights into hepatitis c virus: a comprehensive review. Microorganisms.2024May;12(6):1035.doi:10.3390/Microorganisms12061035.
[2] Basyte-Bacevice V and Kupcinskas L. Viral Hepatitis C: From Unraveling The Nature Of Disease To Cure And Global Elimination.Digestive Diseases.2024Oct; 42(5): 486-95. doi: 10.1159/000539210.
[3] J. Katon W. Epidemiology and Treatment of Depression in Patients with Chronic Medical Illness. Dialogues in Clinical Neuroscience.2011Mar;13(1): 7-23. doi:10.31887/DCNS.2011.13.1/WKATON.
[4] Golden J, O'dwyer AM, Conroy RM. Depression And Anxiety In Patients With Hepatitis C: Prevalence, Detection Rates And Risk Factors.General Hospital Psychiatry.2005Nov;27(6):431-8.doi:10.1016/J.GENHOSPPSYC.2005.06.006.
[5] Pawłowski T, Radkowski M, Perlejewski K, Szymańska B, Berak H, Horban A *et al.* Direct-acting antivirals(daa) positively affect depression and cognitive function in patients with chronic hepatitis c. PLOS One. 2025 Apr;20(4):E0320221.doi:10.1371/JOURNAL .PONE .0320221.
[6] Langås AM, Malt UF, Opjordsmoen S. In-Depth Study of Personality Disorders in First-Admission Patients with Substance Use Disorders. Biomed Central Psychiatry. 2012 Dec; 12: 1-0. doi: 10.1186/1471-244X-12-180.
[7] Janda M and Mergenhagen KA. The Effect of Psychosocial Factors on Success Rates of Hepatitis C Treatment. Psychosomatics.2017Nov;58(6):624-32. doi: 10.1016/J.PSYM.2017.07.003.

DOI: https://doi.org/10.54393/pjhs.v6i5.3060

[8] Kotov R, Gamez W, Schmidt F, Watson D. Linking "Big" Personality Traits To Anxiety, Depressive, And Substance Use Disorders: A Meta-Analysis. Psychological Bulletin.2010 Sep;136(5):768.doi:10.1037/A0020327.
[9] Fábregas BC, de Ávila RE, Faria MN, Moura AS, Carmo RA, Teixeira AL. Health related quality of life among patients with chronic hepatitis C: a cross-sectional study of sociodemographic, psychopathological and psychiatric determinants.The Brazilian Journal of infectious diseases.2013Nov;17(6):633-9.doi:10.1016/j.bjid.2013.03.008.
[10] Manea L, Gilbody S, Mcmillan D. A Diagnostic Meta-Analysis of the Patient Health Questionnaire-9(Phq-9) Algorithm Scoring Method as a Screen for Depression. General Hospital Psychiatry. 2015Jan;37(1):67-75 doi: 10.1016/J.GENHOSPPSYCH.2014.09.009.
[11] Zimet GD, Dahlem NW, Zimet SG, Farley GK. The multidimensional scale of perceived social support. Journal of Personality Assessment. 1988 Mar; 52(1): 30-41. doi: 10.1207/S15327752JPA5201_2.
[12] 1Silva PA, Soares SM, Santos JF, Silva LB. Cut-Off Point for Whoqol-Bref as A Measure of Quality Of Life of Older Adults. Revista De Saude Publica.2014Jun;48:390-7. doi: 10.1590/S0034-8910.2014048004912.
[13] Gatchel RJ. Comorbidity of Chronic Pain and Mental Health Disorders: The Biopsychosocial Perspective. American Psychologist.2004Nov;59(8):795.doi:10.1037/0003-066X.59.8.795.
[14] Sansom-Daly UM, Peate M, Wakefield CE, Bryant RA, Cohn RJ. A systematic review of psychological interventions for adolescents and young adults living with chronic illness. Health psychology.2012May; 31(3):380. doi: 10.1037/A0025977.
[15] Sahoo S, Mishra E, Premkumar M. Antidepressants in people with chronic liver disease and depression: when are they warranted and how to choose the suitable one?. Journal of Clinical and Experimental Hepatology.2024Feb:101390.doi:10.1016/J.JCEH.2024.101390.
[16] Majer M, Welberg LA, Capuron L, Pagnoni G, Raison CL, Miller AH. Ifn-alpha-induced motor slowing is associated with increased depression and fatigue in patients with chronic hepatitis c. Brain, Behavior, And Immunity.2008 Aug;22(6):870-80.doi:10.1016/J.BBI.2007.12.009.
[17] Verhaak PF, Heijmans MJ, Peters L, Rijken M. Chronic disease and mental disorder.Social science & medicine.2005Feb;60(4):789-97.doi:10.1016/J.SOCSCIMED.2004.06.012.
[18] Miller GE, Chen E, Parker KJ. Psychological stress in childhood and susceptibility to the chronic diseases of aging: moving toward a model of behavioral and biological mechanisms. Psychological Bulletin.2011 Nov; 137(6): 959. doi: 10.1037/A0024768.
[19] Lamers SM, Bolier L, Westerhof GJ, Smit F, Bohlmeijer ET. The Impact of Emotional Well-Being on Long-Term Recovery and Survival in Physical Illness: A Meta-Analysis. Journal of Behavioral Medicine.2012Oct;35:538-47. doi: 10.1007/S10865-011-9379-8.
[20] Kazmi SM and Iftikhar R. Cross cutting symptoms, liver function and perceived immune status as predictors of quality of life in patients with Hepatitis B and C: the mediating role of social support and resilience. Current Psychology. 2024 Oct; 43(38): 29954-63. doi: 10.1007/s12144-024-06530-3.