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Research Article

**TO INVESTIGATE THE PSYCHOLOGICAL CONSEQUENCES
OF USING INTERFERON INJECTIONS AND NOT USING
THEM IN CHRONIC HEPATITIS C PATIENTS: A CROSS
SECTIONAL STUDY****Dr Lababa Maryum Raja¹, Dr Humza Farooq², Dr Shagufta Manzoor³**¹Fatima Jinnah Medical University, Lahore, ²AJK Medical College, Muzaffarabad,³Demonstrator at AJK Medical College Muzaffarabad.**Article Received:** October 2020 **Accepted:** November 2020 **Published:** December 2020**Abstract:**

Aim of Study: We conducted this study to investigate the psychological consequences of using Interferon injections and not using them in Chronic Hepatitis C (CHC) patients.

Study Design: A cross sectional study.

Place and Duration: This study was carried out in Medicine department for the duration of one year at Services Hospital Lahore from 1st August, 2019 to 31st July, 2020.

Methodology: Six case studies (3 males and 3 females) with CHC patients were conducted through purposive sampling. The diagnosed CHC patients were interviewed after taking written consent. Semi-structured interview schedule was prepared beforehand by reviewing past literature. Thematic Analysis combining inductive and deductive approaches were used.

Results: The themes depicting depression and anxiety were found in CHC patients using interferon injections whereas stress was found in CHC patients not using these injections. The common major themes were personality traits, quality of life and coping strategies in both CHC patients. However, the sub-themes were found to be different in both CHC patients.

Conclusion: CHC patients having interferon injections were suffering from more adverse psychological consequences than CHC patients not taking interferon injections.

Keywords: Chronic Hepatitis C (CHC), Interferon Injections, Psychological Consequences.

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INTRODUCTION:

Chronic Hepatitis C (CHC) remains a health issue for Pakistani population. Only Hepatitis C virus (HCV) accounted for 6.7 % in Punjab, which is alarming.[1] Researchers have frequently investigated the nature, causes and psychosocial aspects that influence the progression of CHC. Factors such as demographics and cultural background were identified as primary predictors in CHC and can alter health behaviours, personality, coping actions, quality of life and social support system. In addition, the interferon injections entail prolonged course of treatment and substantial psychological side effects for CHC patients such as depression and anxiety. [2, 3]

Mostly, CHC patients' well-being is vulnerable to psychological complaints. It has been examined that HCV has negative impact on the psychological status in 44.2% of patients' anxiety, mood and personality.[4] Another study observed that HCV patients reported feelings of stigmatization and social isolation from their friends, family, and coworkers.[5] Furthermore, coping strategies are significant contributing attributes to the quality of life of CHC patients. These strategies have mediated between stressors and CHC disease as well as its consequences, for instance psychological and physical health.[6]

Various factors have contributed to CHC widespread failure to screen and detect psychological consequences in such patients. Still, in our society psychological complaints and being diagnosed as having psychiatric illness is perceived as a stigma. The medical staff might be hesitant to include psychological services in the treatment of CHC because of fear of increasing the patient's sense of stigma. Therefore, it is important to look at the psychological consequences and understand its impact on CHC patients using interferon injections or not using these injections.

This paper can contribute to improve the quality of life of CHC patients and give awareness to general population especially patients' caregivers who provide support to CHC patients. Through care givers social support, the CHC patients' psychological consequences i.e., depression and anxiety symptoms can be reduced and will help them in adjusting to the disease. This study aimed to identify the coping mechanism of CHC patients and how the disease affects their quality of life.

METHODOLOGY:

The number of Chronic Hepatitis C (CHC) patients are increasing in Pakistan. The treatment of the disease

has further psychological consequences which contribute to poor health of such patients. This paper explores the perceptions of CHC patients on their disease. Six case studies were conducted through purposive sampling technique, two female CHC patients and one male CHC patient under treatment with interferon injections whereas two males CHC patients and one female CHC patient were not taking interferon injections. This study was performed in the outpatient department of Hepatology in a Bahawal Victoria Hospital (BVH) Bahawalpur. Assessment Tool Semi-structured interviews were conducted with CHC patients to gather detailed information about the experiences on CHC disease and its psychological consequences.

The interview schedule focused mainly on the psychological variables that formed the perceptions of CHC patients' regarding disease's feelings and beliefs. The coping strategies of such patients were also assessed. The questions were both open and close-ended (see appendix A). However, when further explanation was needed, the researcher used probes to encourage the CHC patients to share their experiences freely.

All CHC patients were debriefed about the purpose of this research and written permissions were obtained from them. Confidentiality was ensured. Procedure The data collection method was semi structured interview schedule that was developed based on factors identified in the literature. [4,5,6] Each interview with CHC patients were conducted in two sessions in the concerned department of the hospital. Each session lasted for 40 to 45 minutes. All interview discussions were audio taped with the patients' consent. After transcribing the recorded data verbatim, it was reviewed and verified by both the authors.

Thematic content analysis was used in this present study for analysis. According to Braun and Clarke⁷, it is a process used to identify, analysis and report themes within the data. Both inductive and deductive ways to approach thematic analysis were used to develop themes by the content of data. The transcriptions of all CHC patients' interviews were read several times by both the authors to classify the pattern of themes into major themes and sub-themes of present data.

RESULTS:

Two females and one male CHC patient using interferon injections from last six months were approached. The age range of these CHC patients was 49-51 years. They had been diagnosed with the disease

since one and half year ago. The presenting complaints were fatigue, headache, nausea, chest pain and shortness of breath. The mode of transmission was unsafe injections and surgeries. They belonged to upper middle class educated family and having four to five children. The two female CHC patients had menopause 7th-9th months before, which was very disturbing for them. Two males (49-50 years) and one female (47 years) CHC patient were diagnosed with the disease since one year ago. They were not taking interferon injections. The present complains were fever, weakness, headache, diarrhoea, cough, pain in joints and skin rashes. The mode of transmission was through blood transfusion. They belonged to lower

middle class, educated family and had two to three children. The female CHC patient had once broken her arm and had typhoid fever during her teen age.

Depression and anxiety emerged in CHC patients who were using interferon injections whereas stress was more prevalent in CHC patients who were not taking interferon injections. However, personality traits, quality of life and coping strategies were common major themes in both CHC patients. The sample verbatim of CHC patients using interferon injections are presented in Table 1 and the sample verbatim of CHC patients not using interferon injections are illustrated in Table 2.

Table No 01: Sample Verbatim of CHC Patients using Interferon Injections

Verbatim	Sub Themes	Major Themes
<p>I feel sad and cry a lot that I have done something bad that I got this disease (CHC F1)</p> <p>It is my bad luck that I got this disease; No one can do anything about it. (CHCM1)</p> <p>I like to do nothing.... I do not go out.... I do not like to watch television</p> <p>Due to my illness.... I do not like to eat my favorite food even (CHCF2)</p> <p>I cannot sleep at night.... I wake up again and again (CHCM1)</p>	<p>Feelings of sadness</p> <p>Hopelessness</p> <p>Lack of interest in daily activities</p> <p>Loss of appetite</p> <p>Sleep disturbances</p>	Depression
<p>I am worried that I will die soon (CHCF2)</p> <p>At times, I feel like I am dying (CHCF1)</p> <p>Sometimes, there is no sensation in my body.... I cannot move my hands and feet (CHCM1)</p>	<p>Feelings of panic/ fear</p> <p>Feelings of panic/ fear</p> <p>Numbness</p>	Anxiety
<p>I cannot trust anyone as I feel all are talking about my disease and they think that I am not a good person (CHCF1)</p> <p>I get angry very quickly now when my children do not listen to me and sometimes even beat them very hard (CHCM1)</p>	<p>Suspiciousness</p> <p>Aggressiveness</p>	Personality traits
<p>My husband is supporting me financially.... Still, I am not satisfied with my present condition (CHCF1)</p>	Lack of satisfaction	Quality of life
<p>I like to sit alone.... I cannot understand what people are saying (CHCM1)</p>	Isolation/ Social withdrawal	
<p>Now, I get tired easily, I only make one dish for lunch and it seems like I have done a lot of work (CHCF2)</p>	Lack of energy	Coping Strategies
<p>No treatment is effective for me.... even the injections are not helping me.... I am trying not to use them again (CHCM1)</p> <p>When I first knew about the disease.... I have been saying that this was not true (CHCF2)</p>	<p>Avoidant coping</p> <p>Denial</p>	

Note: - CHC patients are coded as CHCM1 (Chronic Hepatitis C Male 1), CHCF1 (Chronic Hepatitis C Female 1), CHCF2 (Chronic Hepatitis C Female 2)

Table No 02: Sample Verbatim of CHC Patients not using Interferon Injections

Verbatim	Sub Themes	Major Themes
My wife does not love me any more... he does not care about me after knowing about my disease... he does not look at me (CHCM3)	Relationship difficulties	Stress
I cannot decide even a trivial thing about my life... it is confusing for me (CHCM2)	Difficulty in making decisions	
My husband does not support me financially... due to this I am in tension all the time (CHCF3)	Financial issues	
I am upset whether my tests' report will be negative or positive... I am uncertain it will be negative (CHCM2)	Confused and doubtful approach	Personality traits
I help other relatives and my friends.... sometimes out of the way...I even have helped patients to how they should talk to doctor to get right treatment (CHCF3)	Cooperative attitude	
I am satisfied with my life...there are ups and downs in everyone's life...I will recover soon (CHCM2)	Self-contentment	Quality of life
I visit my neighbours... I have some good friends (CHCF3)	Social Support	
I believe Allah will cure me.... I pray a lot.... He will listen to my prayer one day (CHCM2)	Active/ Religious coping	Coping Strategies
I try not to think about my present condition and read magazines or watch television shows (CHCF3)	Self-distraction	
I share my feelings and doubts with my elder daughter and my sister.... they listen to me and supports me a lot (CHCF3)	Emotional support	

Note:- CHC patients are coded as CHCM2 (Chronic Hepatitis C Male 2), CHCM3 (Chronic Hepatitis C Male 3), CHCF3 (Chronic Hepatitis C Female 3)

DISCUSSION:

All six patients of CHC suffered from psychological consequences of disease. However, the CHC patient using interferon injections seemed to have gone through more psychological problems as compared to other counterparts. The responses of CHC patients using interferon injections depicted that they were going through depression and anxiety symptoms i.e., feelings of sadness and hopelessness, lack of interest in daily activities, loss of appetite, sleep disturbances and preoccupied with feelings of fear/panic and numbness. Furthermore, the responses of these three CHC patients revealed that they were having mild depression along with anxiety.

There might be multiple reasons for it as CHC patients had started interferon injections six months before. Several studies have reported that CHC patients having interferon therapy experienced depression and anxiety symptoms as mental side effects. [8,9,10,11] Furthermore, the two CHC female patients had menopause three months before interferon treatment. This might have further accelerated the setting in of depression and affected the outcome of treatment in

them. A recent study found that in post-menopausal women with CHC, treatment outcome was significantly worse than pre-menopausal women.[12] This study endorses the above finding about the psychological effects on postmenopausal women. Therefore, depression and other psychological consequences of such women should be considered and treatment plan should include counseling and psychological services as mandatory.

On the other hand, CHC patients who were not taking interferon injections experienced stress (for example, having difficulty in making decisions, relationship difficulties and financial issues). The responses of these three CHC patients did not express any anxiety and depression symptoms. In addition, previous literature has found that CHC patients often display personality traits such as in expressiveness of negative emotions, over cooperativeness, avoiding conflicts and unassertiveness.[13] In the present study CHC patients using interferon injections were suspicious and aggressive in nature whereas the counter parts were confused and had an obliging temperament.

Furthermore, quality of life was found to be different in both types of CHC patients. It appeared that CHC patients not taking interferon injections were contented and enjoyed social company despite facing financial distress. However, CHC patients taking interferon injections had poor quality of life as they were not satisfied with their lives and wanted to be alone and detached. A Greek study also supported this finding that health related quality of life worsened during treatment of interferon in CHC patients.[3] With regard to the use of coping strategies, CHC patients using interferon injections were utilizing avoidant coping whereas the other CHC patients were practicing active coping. Although, some CHC patients had sound financial background, they might be practicing denial and avoidant coping because of intake of interferon injections and experiencing depressive mood along with anxiety at times. A study revealed that avoidance was being used as a coping strategy by those hepatitis C patients who had completed their interferon treatment[4]. Furthermore, in this study CHC patient not using interferon injections were getting emotional support from their family members and were frequently using self-distraction and religious coping strategies. On the other hand, a study revealed that active and religious coping strategies were exercised more by those patients who were waiting for interferon therapy in comparison to the group going through it.[14]

The psychological consequences of CHC cannot be ignored regardless of whether patients are using interferon injections or not. Further studies are needed on large scale for more valid findings and generalizations. There is a need for evaluating CHC patients with psychological conditions and medical staff should provide psychological support during different stages of treatment. The implementation of educational and counseling interventions should be made mandatory with the treatment of CHC to improve such patients' mental and physical health. However, one of the limitations was the past psychological history of CHC patients which was a confounder in this study.

CONCLUSION:

Thematic Analysis showed that the psychological consequences were found more in CHC patients using interferon injections as compared to other counterparts. Furthermore, menopause and different types of stressors also added to the interferon treatment outcomes.

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