### **Qualitative Research**

# Psychological Consequences of Chronic Hepatitis C: Comparison of Using and Not Using Interferon Injections

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#### Abstract |

**Background:** The number of Chronic Hepatitis C (CHC) patients is 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.

**Objectives:** To investigate the psychological consequences of using Interferon injections and not using them in CHC patients.

**Methods:** Through purposive sampling, six case studies (3 males and 3 females) were conducted with CHC patients. The study was completed in the month of February, 2017 in the outpatient department of Liver in a leading Government Hospital of Lahore. 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 di erent in both CHC patients.

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

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**Keywords** | Chronic hepatitis C, psychological consequences, thematic analysis.

#### **Introduction:**

Chronic Hepatitis C (CHC) still remains a health issue for Pakistani population. Only Hepatitis C virus (HCV) accounted for 6.7 % in Punjab, which is alarming. Researchers have frequently looked into 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 e ects 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

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HCV has negative impact on the psychological status in 44.2% of patients' anxiety, mood and personality. Another study observed that HCV patients reported feelings of stigmatization and social isolation from their friends, family, and coworkers. 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.

#### **Rationale of Study**

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 sta 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.

#### Aim and Objective of Study

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 caregivers 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 a ects their quality of life.

#### **Case Summaries**

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.

#### **Materials and Methods**

#### Design, Setting and Participants

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 Government Hospital of Lahore in the month of February, 2017.

#### Assessment Tool

Semi-structured interviews were conducted with CHC patientsto 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.

#### **Ethics**

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 on the basis of

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.

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.

#### **Data Analysis**

Thematic content analysis was used in this present study for analysis. According to Braun and Clarke<sup>7</sup>, it is a process used to identify, analyse and report themes within the data. Both inductive and deductive

**Table 1:** Sample Verbatim of CHC Patients using Interferon Injections

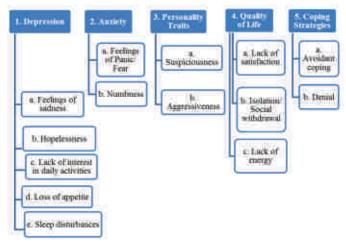
| Verbatim   | Sub Themes                           | Major Themes         |
|--|--------------------------------------|----------------------|
| I feel sad and cry a lot that I have done something bad that I got this disease (CHC F1)   | Feelings of sadness                  |                      |
| It is my bad luck that I got this disease; No one can do anything about it. (CHCM1) $ \label{eq:chcm1} % \begin{subarray}{ll} \end{subarray} % \b$ | Hopelessness                         |                      |
| I like to do nothing I do not go out I do not like to watch television   | Lack of interest in daily activities |                      |
| Due to my illness I do not like to eat my favourite food even(CHCF2)  I cannot sleep at night I wake up again and again (CHCM1)  | Loss of appetite                     | Depression           |
|  | Sleep disturbances                   |                      |
| I am worried that I will die soon (CHCF2)  | Feelings of panic/ fear              |                      |
| At times, I feel like I am dying (CHCF1)   | Feelings of panic/ fear              |                      |
| Sometimes, there is no sensation in my body I cannot move my hands and feet (CHCM1)  | Numbness                             | Anxiety              |
| I cannot trust anyone as I feel all are talking about my disease and they think that I am not a good person (CHCF1)  | Suspiciousness                       | Personality traits   |
| I get angry very quickly now when my children do not listen to me and sometimes even beat them very hard (CHCM1)   | Aggressiveness                       |                      |
| My husband is supporting me financially Still, I am not satisfied with my present condition (CHCF1)  | Lack of satisfaction                 |                      |
| I like to sit alone I cannot understand what people are saying (CHCM1)   | Isolation/ Social withdrawal         | Quality of life      |
| Now, I get tired easily, I only make one dish for lunch and its seems like I have done a lot of work (CHCF2)   | Lack of energy                       |                      |
| No treatment is e ective for meeven the injections are not helping me I am trying not to use them again (CHCM1)  | Avoidant coping                      | Coping<br>Strategies |
| When I first knew about the disease I have been saying that this was not true (CHCF2)  | Denial                               |                      |

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 2: 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 di culties        |                    |
| I cannot decide even a trivial thing about my life it is confusing for me (CHCM2) $$  | Di culty in making decisions   | Stress             |
| 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 |                    |
| I help other relatives and my friendssometimes out of the wayI even have helped patients to how they should talk to doctor to get right treatment (CHCF3) | Cooperative attitude           | Personality traits |
| I am satisfied with my lifethere are ups and downs in everyone's lifeI will recover soon (CHCM2)  | Self-contentment               | Ovality of life    |
| I visit my neighbours I have some good friends (CHCF3)  | Social Support                 | Quality of life    |
| I believe Allah will cure me I pray a lotHe will listen to my prayer one day (CHCM2)  | Active/ Religious coping       |                    |
| 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              | Coping Strategies  |

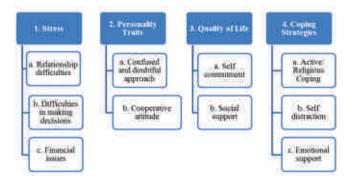
Note. CHC patients are coded as CHCM2 (Chronic Hepatitis C Male 2), CHCM3 (Chronic Hepatitis C Male 3), CHCF3 (Chronic Hepatitis C Female 3)



**Figure 1.** Psychological Themes from CHC Patients Using Interferon Injections
Numbers 1, 2, and 3 showing Major themes.
Themes in alphabetical order are sub themes.

#### Results

The major themes and sub themes of psychological e ects of CHC patients using interferon injections were presented in Figure 1. Similarly, CHC patients not using interferon injections major themes and sub



**Figure 2.** Psychological Themes from CHC Patients not Using Interferon Injections
Figure 2.Numbers 1, 2, and 3 showing Major themes.

Figure 2.Numbers 1, 2, and 3 showing Major themes. Themes in alphabetical order are sub themes.

themes were displayed in Figure 2. 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.

#### **Discussion**

All six patients of CHC su ered 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 e ects. (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 a ected the outcome of treatment in them. A recent study found that in post menopausal women with CHC, treatment outcome was significantly worse than premenopausal women. (12) This study endorses the above finding about the psychological e ects 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 di culty in making decisions, relationship di culties 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 cooper ativeness, 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 dierent in both types of CHC patients. It appeared that CHC patients not taking interferon injections were contented and enjoyed social company in spite of 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 practising active coping. Although, some CHC patients had sound financial background, they might be practising 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 treatment4. Furthermore, in this study CHC patients not using interferon injections were getting emotional support from their family members and were frequently using selfdistraction 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)

#### **Suggestions and Limitations**

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 sta should provide psychological support during di erent 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 di erent types of stressors also added to the interferon treatment outcomes.

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