

duration (demographic factors), liver pathology, liver fibrosis, perceived immune status, health and lifestyle, stage of (biological determinants), and resilience and CCS (psychosocial determinants) significantly predicted QoL. Resilience and social support significantly mediated between CCS and QoL; and gender, resilience and liver fibrosis moderated CCS and overall QoL, indirectly through social support.

A qualitative thematic analysis with 6 HBV patients revealed 5 themes that included, *navigating the diagnostic journey, disease experience knowledge and adaptation, confrontation with psychosocial challenges, barriers to treatment, and resilience empowerment and future concerns.*” And 6 HCV patients revealed, 5 separate themes *initial diagnosis and emotional responses, emotional turmoil, stigma and isolation, somatic struggles and health management, navigating life and social transitions and coping and future orientations* for HBV patients.

Moreover, a number of similarities and differences were identified in the perspectives of the participants of both groups. Foregoing in view, the results of both qualitative and quantitative studies suggest the biological, psychological and social functioning of patients with Hepatitis B and C determine their quality of life. It is further concluded that utilization of translated and validated instruments can provide insights into the experiences of those affected with HBV and HCV and can further contribute towards the development of therapeutic and diagnostic interventions aimed at enhancing their quality of life. Results of quantitative and qualitative studies suggest QoL in hepatitis patients are determined by biological, psychological and social determinants.

Keywords: biopsychosocial determinants, QoL, depression, anger, anxiety, somatic symptoms, suicidal ideation, psychosis, sleep problems, memory, repetitive thoughts and behaviors, dissociation, personality functioning, and substance abuse, health, lifestyle, perceived immune status, resilience, hepatitis B Virus, hepatitis C virus

Abstract

Hepatitis B Virus (HBV) and hepatitis C virus (HCV) are highly contagious viral diseases of the liver, and gravely impact the quality of life (QoL) in humans. While there is an increasing amount of evidence regarding the association among depression, anxiety and increased morbidity and mortality in the general population as well as across those population segments with chronic conditions and diseases, limited research has been done with regard to assessing how cross cutting symptoms (depression, anger, anxiety, suicidal ideation etc.), perceived immune status, health and lifestyle factors and resilience impact quality of life in these patients. A granular analysis of QoL that would include various symptoms like depression, anger, anxiety, suicidal ideation etc. (cross-cutting symptoms, CCS), or factors that affect QoL such as, perceived immune status, general health keeping, lifestyle, and resilience have not been studied in these patients, especially in Pakistan.

This dissertation addressed these issues in two parts; the quantitative part consisted of translating and standardizing a number of scales (see below) and regression analyses of patient data that resulted from completing these instruments. The qualitative part involved carrying out semi-structured interviews of chronically sick HBV and HCV patients to get an in-depth understanding of QoL in these patients. In the first phase of the quantitative part Cross Cutting Symptoms Measure (CCSM), Essential Resilience Scale (ERS) and Immune Status Questionnaire (ISQ) were translated in Urdu using a sample of 50 HBV and 50 HCV ($N = 100$) patients. To establish the factor structure of these scales, confirmatory factor analyses were carried out on 230 HBV and 200 HCV ($N = 430$) patients. After standardizing

the instruments, 196 HBV and 204 HCV ($N = 400$) patients completed the scales and many other scales already available for further analyses. The findings revealed depression, anger, anxiety, somatic symptoms, suicidal ideation, psychosis, sleep problems, memory, repetitive thoughts and behaviors, dissociation, personality functioning, and substance abuse (CCS) had a significant negative association with health and lifestyle, perceived immune status, resilience and QoL. Moreover, analysis of CCS revealed high prevalence for somatic distress followed by depression, anxiety, anger and personality-related issues. Furthermore, age, gender, diagnosis