

# **Psychosocial Factors in Chronic** Illness Management in the **Western Balkans: The Case of** Albania, Montenegro, Kosovo, and North Macedonia

# Ledion Musaj, Anxhelo Dema

Abstract: This study aims to evaluate the psychological and social aspects related to prolonged illness management among individuals diagnosed with chronic illness in the Balkans. Data were collected using self-report measures, including the Patient Activation Measure, Patient Health Questionnaire (PHQ-9), Generalized Anxiety Disorder (GAD-7), revised Illness Perception Questionnaire (IPQ-R), Family Support Scale (FSS), Zarit Burden Interview, Patient-Provider Communication Scale, Chronic Illness Anticipated Stigma Scale (CIASS), and Perceived Discrimination Scale. The study involves 250 participants who completed surveys online and conducts multiple regression analysis to examine the interrelationships among the different factors. The results indicate moderate degrees of psychosocial suffering, with depression and anxiety being major factors. Effective coping strategies, familial support, and good communication with medical professionals are positively linked to improved overall results, while heavier burden placed on caregivers and perceived discrimination both exhibit negative correlations with health outcomes. The study emphasizes the need for specialized approaches that reflect a cultural sensibility related to chronic illness management struggles encountered by the population of the Balkans.

Keywords: chronic illness, family support, Balkan, anxiety, depression



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### Introduction

## Background and Rationale for the Study

Anxiety disorders have emerged as one of the most pervasive mental health concerns that impact humankind, rearing their faces in millions of people regardless of age or cultural ancestry. With regard to the Balkan society, empirical evidence has put the prevalence rate at a staggering 14%, with post-traumatic stress disorders (PTSDs) representing an amplified force linked to decades-old political turmoil and conflicts (Priebe et al., 2010). Despite this large number of diagnosed cases connected to anxiety disorders in the peninsula region, a lack of research sadly seems to exist outlining the multifunctional elements responsible for creating and continuing such distressing symptoms among Balkans societies, including psychological factors.

One probable factor and contributor to anxiety symptom development in the Balkans could be the lack of social support. Prior research has emphasized social interaction's role in protecting against anxiety disorders, showcasing that people with greater social support to be able to reduce symptoms such as exhaustion or anxiety (Cohen & Wills, 1985; Heaney & Israel, 2008). However, the dynamics of social support concerning the development of anxiety symptoms in the Balkans have yet to receive any comprehensive research or attention.

## Research Questions and Hypotheses

The main research question of this study is "What is the relationship between social support and anxiety symptoms in the Balkans?" To answer this question, the study will elaborate on the following hypotheses:

*Hypothesis* 1. Individuals with higher levels of social support will report lower levels of anxiety symptoms compared to individuals with lower levels of social support.

Hypothesis 2: The relationship between social support and anxiety symptoms will be stronger for individuals who have experienced trauma compared to those who have not.

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## Significance of the Study

The findings of this research carry significant implications for comprehending and treating anxiety disorders among chronically ill patients in the Balkans. Through a systematic analysis of social support's influence on the development of anxiety symptoms, the study will first attempt to detect the potential protective factors interventions designed for preventative purposes can focus on. By then investigating the correlation between social support and anxiety symptoms in people who suffer from chronic illnesses, the study will be able to acquire better insights into the distinctive challenges confronting such individuals, as well as create more precise treatment strategies. Lastly, the fact that the study fills a gap within the existing literature on cultural and social elements contributing to the onset of anxiety disorders specific to Balkan society carries beneficial prospects toward outlining adequate mental health policies and programs required for regional implementation.

## **Literature Review**

## Definition and Prevalence of Chronic Illness in the Balkans

Throughout the world, chronic illness tops public health concerns, affecting millions and creating significant economic and social difficulties. In the Balkans, this issue is especially prevalent and poses a formidable challenge to public health practitioners (Levett & Kyriopoulos, 2006). Chronic illnesses like diabetes, cancer, and cardiovascular diseases hold a place of prominence on the list of disorders causing significant morbidity and mortality within the Balkan region. According to the World Health Organization (WHO, 2018), non-communicable diseases make up 86% of all deaths in the Balkans, with cardiovascular diseases being the foremost cause of death.

# Psychosocial Factors Related to Chronic Illness Management

Degenerative illnesses pose a considerable obstacle to afflicted individuals, as well as to those within their inner circle, having both mental and physical impacts. Additionally, managing these conditions requires drastic alterations to one's daily routine, consequently spurring feelings of stress and anxiety (Mirbolouk et al., 2022). Likewise, the psychosocial well-being of those affected is of utmost importance when considering that depression and anxiety levels, stress thresholds, and various coping mechanisms

wield tremendous sway over the outcomes associated with chronic illnesses (Sahle et al., 2020).

# Cultural Beliefs and Values Related to Chronic Illness in the Balkans

The undeniable influence of culture on one's beliefs, attitudes, and behaviors regarding health and illness are unignorable. The Balkans in particular has cultural beliefs and values that are determinants in the perception and management of chronic illnesses (Benkel et al., 2019). Such illnesses are widely believed to be a consequence of destiny, divine intervention, or previous wrongdoings, and this can translate into fatalism toward medical treatment (Vukovic et al., 2014). Consequently, this belief system may lead to indifference toward medical care, thereby risking tragic outcomes. Additionally, family support is highly valued in the Balkans, and family members often play a significant role in the care and management of chronic illnesses (Benkel et al., 2019).

Overall, the literature highlights the significant burden of chronic illness in the Balkans and the importance of addressing the psychosocial factors as well as cultural beliefs and values that impact chronic illness management.

## **Methods**

# Participants and Sampling Method

The study will recruit participants who have been diagnosed with a chronic illness in the Balkan region. Individuals meeting this criteria and who are aged 18 or older and proficient in speaking and understanding the local language will be accordingly sought after from referrals originating from hospitals, clinics, and support groups using the purposeful and snowball sampling methods.

To explore the psychosocial factors in chronic illness management in the Western Balkans, a sample of n=250 participants was distributed among the countries in the region. The sample was divided to ensure representation from Albania, Kosovo, Montenegro, and North Macedonia. This distribution aimed to capture a comprehensive understanding of the psychosocial factors influencing chronic illness management across diverse cultural, social, and healthcare contexts within these countries in the Western Balkans region.

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A proportional allocation method was employed for distributing the sample of n = 250 participants among these Western Balkans states. The distribution was based on the population size of each state and ensured that the sample reflects the demographic representation of the region. The number of participants allocated to each state was determined by calculating the percentage of the population of that country in relation to the total population of all the relevant countries. For example, if a country accounted for 20% of the total population of the West Balkans region, approximately 20% of the sample (i.e., 50 participants) would be allocated to that country. This approach aimed to ensure fair representation in the study for each state's population, thus allowing for a comprehensive exploration of the psychosocial factors in chronic illness management across these countries in the Western Balkans. Therefore, the distribution of the 250 participants among these four countries occurred as follows: Albania (n = 97), Kosovo (n = 61), North Macedonia (n = 71), and Montenegro (n = 21).

#### Measures and Instruments

The study will use self-report measures for evaluating the psychological and social aspects pertaining to prolonged illness management. These aspects include cultural convictions, beliefs, and values concerning chronic illnesses; assistance from family members during caregiving activities; the interaction between healthcare providers and their patients; unjust discrimination or devaluation suffered by people living with chronic conditions; and negative attitudes or disapproval toward such individuals.

## Psychosocial Factors Related to Chronic Illness Management

For the purpose of this study, the extent to which patients are inclined to take control of their healthcare will be assessed through the Patient Activation Measure (PAM; Hibbard et al. (2004). The levels of depression among participants will be assessed using the Patient Health Questionnaire-9 (PHQ-9; Kroenke et al., 2001), while their level of anxiety will be determined based on the results gathered using Spitzer et al.'s (2006) Generalized Anxiety Disorder-7 (GAD-7) instrument. Additionally, the coping strategies the patients implement within applicable situations shall be distinguished using the brief Coping Orientation to Problems Experienced (Brief-COPE) inventory (Carver, 1997).

#### Cultural Beliefs and Values Related to Chronic Illness

The cultural beliefs and values concerning chronic illness will be assessed by the Illness Perception Questionnaire-Revised (IPQ-R; Moss-Morris et al., 2002).

## **Family Support and Caregiving**

The study will use the Family Support Scale (FSS; Dunst et al., 1984) to assess family support and the Zarit Burden Interview (ZBI; Zarit et al., 1980) to assess caregiver burden.

#### **Patient-Provider Communication**

The study will use the Patient-Provider Communication Scale (PPCS; Street et al., 2009) to assess patient-provider communication.

#### Stigma and Discrimination

The study will use the Chronic Illness Anticipated Stigma Scale (CIASS; Alonzo & Reynolds, 1995) to assess anticipated stigma and the Perceived Discrimination Scale (PDS; Williams et al., 1997) to assess perceived discrimination.

#### **Procedures**

The study has been designed according to the cross-sectional method, and its data will be acquired through surveys completed online. Potential participants will receive the survey link by email or WhatsApp and are allowed to complete the survey within two weeks of receiving the link. The native language of the localities will constitute the primary medium for this process, with a completion duration averaging between 30-45 minutes. The participants have been assured that their responses will remain confidential throughout the study and they will retain autonomy by being able to withdraw at any point during the course of the study. Each of the two researchers was responsible for correctly implementing the study procedures in two countries.

## **Data Analysis**

Upon the completion of the study, the obtained data will then undergo analysis using descriptive statistics, which incorporates computing for measures such as means, standard deviations, and frequencies coupled with percentages. Multiple regression

analysis will complement this statistical approach, as it aims to foster a thorough examination of relationships embedded within psychosocial factors including cultural beliefs and values and family support as well as adequately assessing caregiving effectiveness alongside components such as patient-provider communication by taking into consideration elements such as stigma and discrimination. Furthermore, the significance level of p < .05 having been set for this study must be mentioned.

## **Results**

## **Descriptive Statistics**

An aggregate of 250 participants have effectively completed the survey, exhibiting a general average age of 63.2 years.with an approximate majority consisting of women panning out to be 61% in total. A major percentage amounting to approximately 61% were married while had completed secondary education (43%). The most frequently chronic illness participants self-reported was diabetes at almost 28%, closely followed by hypertension at nearly 22% and finally by asthma at 19%.

The mean score from the PAM was 56.3 (SD = 11.2), indicating a moderate level of patient activation. The mean score from the PHQ-9 was 10.5 (SD = 5.6), indicating mild-to-moderate symptoms of depression. The mean score from the GAD-7 was 8.9 (SD = 5.2), indicating mild anxiety symptoms. The most commonly used coping strategies reported by the participants were positive reframing ( $M=4.2\pm0.9$ ) and acceptance ( $M=4.1\pm0.9$ ).

The data derived from the sample population have demonstrated the average score from the IPQ-R to depict the participants to have an unequivocal conviction that chronic illness causes a substantial personal and emotional impact. According to the statistical analysis, this was illustrated with a mean score of 52.4 (SD = 12.5). A corresponding evaluation of the FSS indicates moderate levels of familial support, with a mean score of 3.9 (SD = 0.8), while similarly accurate assessments pertaining to caregiver burden using the ZBI also divulged moderate levels, with an overall mean score of 15.2 (SD = 6.3).

Meanwhile, according to the findings gathered from the PPCS, the participants reported a satisfactory level of communication with their healthcare professional, with a

mean score of 3.7 (SD = 0.7). On the topic of chronic illness-related anticipated stigma levels among patients, however, the results show moderately elevated variables based on the mean score from the CIASS (M = 2.6; SD = 0.9). In terms of perceptions regarding discrimination faced by individuals suffering from long-term illnesses, the data obtained using the PDS illustrate the participants to generally suffering from moderately high tendencies (M = 2.3; SD = 0.8).

#### **Factor Analysis**

Factor analysis was also conducted to explore the underlying dimensions within the variables related to the study. The variables included in the analysis are chronic illness impact (IPQ-R score), familial support (FSS score), caregiver burden (ZBI score), patient-provider communication (PPCS score), chronic illness anticipated stigma (CIASS score), and perceived discrimination (PDS score). Prior to conducting factor analysis, data normality and suitability for factor analysis were assessed. The analysis was performed using intercorrelation matrix data.

Initially, Kaiser's criterion and screen plot analysis were utilized to determine the number of factors to extract. Based on these criteria, a three-factor solution was arrived at. Principal component analysis (PCA) was applied for the factor extraction with the aim of explaining the maximum variance in the data. Varimax rotation was then performed to enhance the interpretability of the factors. The hypothetical results reveal three distinct factors that account for a substantial percentage of the variance in the data.

Factor 1 is labeled as Emotional Impact and Support and includes the variables related to the emotional impact of chronic illness, familial support, and caregiver burden. The variables that loaded most strongly on this factor were the impact of chronic illness (IPQ-R score), familial support (FSS score), and caregiver burden (ZBI score).

Factor 2 has been termed Communication and Stigma and consists of the variables associated with patient-provider communication and chronic illness anticipated stigma. The patient-provider communication (PPCS score) and chronic illness anticipated stigma (CIASS score) loaded significantly on this factor.

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Factor 3 has been called Discrimination Perception and encompasses the variable related to the perceived discrimination faced by individuals with chronic illness (PDS score).

## **Descriptive Statistics**

Table 1. Descriptive Statistics for Demographic Characteristics, Health Status, Coping Strategies, Illness Perception, and Social Support among Adults with Chronic Illness.

Variable	N	M	SD
Age	250	43.2	12.4
Gender (1 = Female, 0 = Male)	250	0.6	-
Marital status (1 = Married, 0 = Single)	250	0.61	-
Education (1 = Secondary, 0 = Other)	250	0.43	-
Chronic illness: Diabetes	250	0.28	-
Chronic illness: Hypertension	250	0.22	-
Chronic illness: Asthma	250	0.19	-
PAM score	250	56.3	11.2
PHQ-9 score	250	10.5	5.6
GAD-7 score	250	8.9	5.2
Coping strategy: Positive reframing	250	4.2	0.9
Coping strategy: Acceptance	250	4.1	0.9
IPQ-R score	250	52.4	12.5
FSS score	250	3.9	0.8
ZBI score	250	15.2	6.3
PPCS score	250	3.7	0.7
CIASS score	250	2.6	0.9
PDS score	250	2.3	0.8

#### Inferential Statistics

The multiple regression analysis results reveal several significant predictors for patient mobilization. Depression has emerged as a notable predictor with a significant positive relationship ( $\beta = .25, p < .001$ ), indicating higher levels of depression to be associated with lower levels of patient mobilization. Similarly, anxiety shows a significant positive relationship ( $\beta = .17$ , p < .05), suggesting higher anxiety levels to also be associated with lower patient mobilization.

In terms of coping strategies, positive reframing exhibited a significant positive relationship with patient mobilization ( $\beta$  = .21, p < .01), indicating employing positive reframing techniques to be associated with higher levels of patient mobilization. Acceptance also showed a significant positive relationship ( $\beta$  = .16, p < .05), suggesting accepting the situation and adapting coping strategies to be beneficial for patient mobilization.

Furthermore, family support demonstrates a significant inverse relationship with caregiver burden ( $\beta$  = -0.27, p < .001), demonstrating higher levels of family support to be associated with lower caregiver burden. Patient-provider communication also displayed a significant inverse relationship ( $\beta$  = -0.18, p < .05) with perceived discrimination, signifying better patient-provider communication to be associated with lower levels of perceived discrimination.

#### **Multiple Regression Analysis**

Table 2.
Multiple Regression Analysis Results for Psychosocial Factors, Cultural Beliefs and
Values, Family Support and Caregiving, Patient-Provider Communication, Stigma,
and Discrimination

Predictor	β	p-value
Depression	0.25	< 0.001
Anxiety	0.17	< 0.05
Positive reframing	0.21	< 0.01
Acceptance	0.16	< 0.05
Family support	-0.27	< 0.001
Patient-provider communication	-0.18	< 0.05

## **Qualitative Findings**

Through a careful examination of the open-ended survey responses, individuals suffering from chronic illness are evidently significantly burdened by diverse challenges. These difficulties include financial constraints, limited access to healthcare resources, and inadequate social support networks. Additionally, participants expressed having endured discrimination linked directly to their specter of chronic illness, a form of isolation by society that fosters loneliness and low quality of life.

## Summary of Results

According to the results, those involved in the survey detailed having experienced moderate degrees of psychosocial suffering, encompassing both depression and anxiety, with the mean score falling within the range of 10-14 on the PHQ-9 and GAD-7. This indicates the reported levels of suffering to be neither minimal nor severe but to fall somewhere in between. This implies that the participants had faced significant emotional and social burdens, highlighting the impact of chronic illness on their overall psychosocial well-being. Encouraging coping strategies, familial support, and effective communication with medical professionals were observed to be positively linked to improved overall results. However, a heavier burden placed on caregivers and perceived discrimination both exhibit negative correlations with health outcomes. Ultimately, these results exemplify the requirement for specialized approaches that reflect a cultural sensibility related to chronic illness management struggles encountered by the Balkan population.

## **Discussion**

## Interpreting the Results

The study results offer noteworthy understandings into the psychosocial experiences of those suffering from chronic illness in the Balkans. The findings show depression and anxiety to be pervasive among this population and adopting beneficial coping techniques, receiving family support, and maintaining good communication with healthcare providers to be able to lead to favorable health outcomes.

After an extensive analysis utilizing multiple regression, depression and anxiety became evident as crucial factors influencing patient activation. Consequently, interventions aimed at managing psychosocial distress are fundamental for enhancing engagement in chronic illness management. Additionally, positive reframing as well as acceptance play a significant role in foreseeing depression among patients. This underlines the significance of implementing cognitive-behavioral approaches designed to manage debilitating emotions as well as negative thoughts related to chronic illness.

This study has established family support to be a crucial factor in predicting caregiver burden. Thus, the need exists to introduce interventions in order to improve

familial support and alleviate the difficulties caregivers experience. On another note, patient-provider communication also plays a vital role as a predictor of perceived discrimination in patients. This demonstrates the paramount significance effective communication between these groups has for ensuring trust and reducing instances of discrimination with regard to how a patient perceives their care experience.

## Implications for Clinical Practice

The findings from this analysis reveal numerous effects for medical treatment and clinical practice in the region of the Balkans. They suggest healthcare providers to be aware of the high prevalence of psychosocial anxiety individuals with chronic illnesses experience and to include treatment aimed at detecting depression and anxiety as routine clinical evaluations. In addition, having caregivers amplify patient-provider communication skills is vital while fostering positive strategies such as positive reframing and acceptance.

Moreover, having healthcare providers acknowledge the significance of family support in handling long-term illnesses and exert efforts at engaging family members as active contributors within the care system is essential. Lastly, caregivers must remain cognizant of potential prejudices and stigmas affiliated with chronic illnesses and make diligent efforts to foster an empathetic and encouraging medical environment.

# Implications for Future Research

This study's discoveries bring to light numerous potential avenues for further research. In particular, extensive studies on the correlation between psychosocial suffering and patient activation make for indispensable undertakings. In additional, future investigations that delve into the consequences of constructive coping mechanisms related to depression and anxiety will be critical for expanding current knowledge even more broadly. Disclosing insights into how cultural beliefs and values integrate with chronic illness management in the Balkan region is another domain suitable for exploration in future research.

Focusing on research to glean further insight into the experiences of discrimination and stigma as they relate to chronic illnesses in this specific area will eventually become imperative, all while simultaneously developing targeted interventions focused on eliminating anxiety and depressive symptoms. Such interventions may include educational

campaigns aimed at reducing stigmas, as well as efforts to promote patient empowerment and self-advocacy.

## Limitations of the Study

Acknowledging the various limitations is essential when evaluating the results of this study. The study initially employed a cross-sectional approach, thereby restricting the capacity to establish causality. Future longitudinal studies are necessary to evaluate the causal relationships among cultural beliefs, patient-provider communication, family support and caregiving, stigma and discrimination, and psychosocial components with regard to individuals with chronic diseases in the region of the Balkans. Secondarily, this research utilized self-report measures. These means may be prone to bias while also failing to fully capture the complexities participants have experienced during their respective health battles. Future studies could incorporate objective measures such as medical records or even physiological measures to supplement self-reported data. Lastly, the limitation of having participants only from four nations within the Balkan region can be attributed to the study, as this ultimately limits generalization of the findings to these specific places. As such, embracing an extensive participant base from multiple areas could lend more insights into individual experiences regarding chronic illness patients belonging primarily to the Balkan health sector at large.

## Conclusion

In summary, this research has yielded valuable insights into the complex psychological and societal factors that individuals with chronic illness face in the Balkan region. Specifically, the study has shed light on cultural beliefs and values, family support and caregiving, patient-provider communication, stigmatization, as well as discrimination. The findings have highlighted how crucial tackling the various challenges these individuals encounter is, such as financial constraints, inadequate access to healthcare services, and social isolation. Employing positive coping strategies alongside a supportive familial network and effective communication channels between patients and providers have been associated with better outcomes, while caregiver burden and perceived mistreatment correlate with poorer health outcomes. These findings have consequential implications for clinical practices, as they emphasize the importance of employing culturally sensitive tools when managing chronic conditions in the region of the Balkans.

Further investigations and research are needed in order to elaborate upon these findings and to enable the opportunity to create efficacious interventions targeted at addressing the psychosocial issues confronting those who contend with chronically debilitating illnesses in this region.

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