

# Modeling the Relationships Between Coping Styles, Illness Perception, Perceived Social Support, and Psychological Resilience in Patients with Chronic Migraine

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## Article Info

## ABSTRACT

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**Objective:** This study aimed to model the relationships between coping styles, illness perception, perceived social support, and psychological resilience in women diagnosed with chronic migraine.

**Methods and Materials:** A correlational descriptive design was employed with a sample of 400 women aged 18–60 years, all medically diagnosed with chronic migraine and residing in Tehran. Participants were selected using convenience sampling, and data were collected using validated self-report instruments: the Connor-Davidson Resilience Scale (CD-RISC), Coping Inventory for Stressful Situations (CISS), Illness Perception Questionnaire-Revised (IPQ-R), and Multidimensional Scale of Perceived Social Support (MSPSS). Data were analyzed using SPSS version 27. Descriptive statistics, Pearson correlation coefficients, and multiple linear regression analysis were conducted to explore associations and predictive relationships among the variables.

**Findings:** Descriptive statistics showed moderate to high levels of psychological resilience and perceived social support among participants. Pearson correlation analysis revealed that psychological resilience was positively correlated with task-oriented coping ( $r = .61, p < .001$ ) and perceived social support ( $r = .66, p < .001$ ), and negatively correlated with emotion-oriented coping ( $r = -.42, p < .001$ ), avoidance-oriented coping ( $r = -.18, p = .003$ ), and negative illness perception ( $r = -.55, p < .001$ ). The multiple regression model including all five predictors was significant,  $F(5, 394) = 178.98, p < .001$ , explaining 70.2% of the variance in psychological resilience. Perceived social support ( $\beta = .44$ ) and task-oriented coping ( $\beta = .32$ ) were the strongest positive predictors, while illness perception ( $\beta = -.29$ ), emotion-oriented coping ( $\beta = -.19$ ), and avoidance-oriented coping ( $\beta = -.09$ ) were significant negative predictors.

**Conclusion:** The findings underscore the importance of adaptive coping strategies, positive illness beliefs, and strong social support in enhancing psychological resilience among women with chronic migraine. Interventions targeting these psychosocial factors may improve patients' adaptive capacity and overall well-being.

**Keywords:** chronic migraine, psychological resilience, coping styles, illness perception, social support, women's health.

## 1. Introduction

Chronic migraine is a highly debilitating neurological condition that significantly impairs the emotional, cognitive, and social functioning of patients. Beyond its physical toll, it is increasingly recognized as a disorder with profound psychological and behavioral implications, particularly in how individuals adapt to its long-term presence and manage its unpredictable manifestations (Gürsoy & Toksoy, 2023; Imai et al., 2022). Psychological resilience—defined as the capacity to adapt successfully in the face of adversity—has emerged as a central construct in understanding how individuals cope with chronic health conditions such as migraine. The study of psychological resilience in this context is essential not only for better clinical outcomes but also for developing supportive interventions aimed at enhancing patients' quality of life (McPhee & Robinson, 2019).

The role of coping styles in chronic illness adaptation has garnered significant scholarly attention. Coping strategies are often categorized into task-oriented, emotion-oriented, and avoidance-oriented behaviors, each with varying implications for long-term psychological outcomes (Ferrari & Pieschl, 2011). In migraine patients, maladaptive coping such as avoidance has been linked to increased pain sensitivity, higher disability levels, and deteriorating mental health, whereas task-oriented coping is generally associated with adaptive adjustment and greater resilience (Chiros & O'Brien, 2011; Wolters et al., 2010). Research in brain injury rehabilitation also supports the idea that coping styles directly influence quality of life, with problem-focused strategies linked to better psychological outcomes (Wolters et al., 2011). Furthermore, a study by Shahverdi et al. revealed that interventions targeting coping styles, such as mindfulness-based cognitive therapy, can positively influence both psychosomatic symptoms and cognitive-emotional regulation in migraine sufferers (Shahverdi et al., 2023).

A parallel line of inquiry has explored the contribution of illness perception—how patients cognitively and emotionally interpret their illness—to the psychological resilience of individuals with chronic diseases. The Self-Regulation Model of illness behavior proposes that individuals' beliefs about their condition, including its controllability, timeline, and consequences, shape their emotional and behavioral responses (Seifert, 2012). In migraine patients, negative illness perceptions have been associated with greater emotional distress, poorer treatment

adherence, and lower resilience (Radat et al., 2009). Illness perception is often rooted in personal and sociocultural contexts, including prior health experiences and prevailing health beliefs, thus varying widely across individuals and cultures (Pistoia et al., 2022). Yuan et al. emphasized the interaction between illness perception and coping strategies, noting that a more optimistic appraisal of one's condition fosters proactive coping mechanisms (Yuan et al., 2022).

Perceived social support has also been shown to buffer the psychological impact of chronic illness. Social support encompasses emotional, informational, and instrumental resources received from family, friends, and broader social networks, which can mitigate the effects of stress and enhance psychological well-being (Huang & Wu, 2021). For chronic migraine patients, the quality and perception of social support can play a pivotal role in coping efficacy and emotional recovery, especially in the absence of curative treatments (Park & Chen, 2015). Yan et al. demonstrated that perceived social support can mediate the relationship between health literacy and symptom burden, highlighting its essential role in chronic disease management (Yan et al., 2025). Moreover, Xue et al. noted that family functioning and perceived support directly influence depressive symptoms in older adults with chronic comorbidities, reinforcing the universal importance of this variable across different chronic conditions (Xue et al., 2024).

It is crucial to recognize that the dynamic interplay between coping styles, illness perception, and perceived social support may jointly influence psychological resilience in patients with chronic migraine. While each variable individually affects patient outcomes, their interactions form a complex psychosocial matrix. For instance, individuals with maladaptive illness perceptions may rely more on avoidance coping, particularly if they perceive low social support, leading to diminished resilience and increased vulnerability to psychological distress (Yu & Zhao, 2023; Zimmermann et al., 2012). The cumulative burden of poor coping, negative illness beliefs, and perceived social isolation may also increase the likelihood of psychiatric comorbidities such as anxiety and depression, as observed in various chronic illness populations (Sirois et al., 2015).

The neurobiological and behavioral consequences of chronic migraine further intensify the need to investigate these psychosocial factors. Migraine attacks are not only painful episodes but also often unpredictable, leading to anticipatory anxiety and hypervigilance—psychological states that exacerbate emotional vulnerability (Gürsoy & Toksoy, 2023). Studies using personality assessment tools,

such as Rorschach protocols, have revealed distinct emotional profiles in migraine patients, such as heightened sensitivity to internal stressors and poor affect regulation (Balottin et al., 2018). These traits can influence the way patients appraise their illness and select coping strategies. In a related study, Seifpour et al. found that stage-of-change education aimed at increasing awareness of coping mechanisms led to measurable improvements in migraine management among Iranian female patients, underlining the importance of psychosocial education in clinical practice (Seifpour et al., 2019).

Adding to the complexity, migraine is often accompanied by interpersonal and relational stressors, such as disruption of family roles, occupational limitations, and social withdrawal (Hall et al., 2019; McPhee & Robinson, 2019). The family system, in particular, can either serve as a source of resilience or a contributing factor to stress. Huang et al. emphasized the role of spousal relationships in modulating the quality of life of patients with chronic conditions, suggesting that close relational support may enhance patients' coping capacity and illness adjustment (Huang et al., 2018). Conversely, when social relationships are strained or unresponsive, individuals may internalize stress and adopt emotion-focused or avoidance coping mechanisms, thereby reducing resilience (Головачева et al., 2021).

Beyond the patient level, researchers have also begun to examine how sociocultural and neuropsychological variables influence coping and adaptation in chronic illnesses. Chiros and O'Brien demonstrated that acceptance-based appraisals are linked to greater resilience, even in the face of high daily migraine burden, suggesting that psychological flexibility and cognitive reappraisal are critical mediators (Chiros & O'Brien, 2011). Similarly, research by Ferrari et al. on patients with whiplash injury—a condition with overlapping psychosomatic dynamics—highlighted the significance of cultural expectations and coping strategies in determining health outcomes (Ferrari & Russell, 2010). These findings lend further support to integrative biopsychosocial models that account for psychological, behavioral, and social determinants of resilience in chronic migraine.

Despite extensive research, significant gaps remain in fully understanding how these variables interact to shape psychological resilience in chronic migraine. While most studies have focused on bivariate relationships or isolated constructs, there is a need for comprehensive modeling of the interrelations between coping styles, illness perception, and perceived social support in predicting resilience

outcomes. Additionally, few studies have addressed these questions within the Iranian context, despite evidence suggesting that cultural norms, family structures, and health beliefs significantly influence chronic illness management (Darbani & Atapour, 2023). Moreover, experimental case studies employing cognitive-behavioral interventions have shown promise in improving both clinical and psychological markers of migraine, reinforcing the importance of addressing these psychosocial domains in research and practice (Головачева & Головачева, 2021).

To address these gaps, the current study seeks to model the relationships between coping styles, illness perception, perceived social support, and psychological resilience in patients with chronic migraine in Tehran.

## 2. Methods and Materials

### 2.1. Study design and Participant

This study employed a correlational descriptive design to investigate the relationships between coping styles, illness perception, perceived social support, and psychological resilience in women with chronic migraine. The target population included female patients diagnosed with chronic migraine residing in Tehran. A total of 400 women participated in the study, selected through convenience sampling. The sample size was determined based on the Krejcie and Morgan Table (1970), which recommends this number for populations exceeding several thousand. Inclusion criteria included being biologically female, having a confirmed diagnosis of chronic migraine for at least six months, and being between the ages of 18 and 60. All participants provided informed consent prior to participation. Ethical approval was obtained from the appropriate institutional review board to ensure adherence to research ethics standards.

### 2.2. Measures

#### 2.2.1. Resilience

The Connor-Davidson Resilience Scale (CD-RISC), developed by Kathryn M. Connor and Jonathan R.T. Davidson in 2003, is one of the most widely used instruments for assessing psychological resilience. The CD-RISC-25 consists of 25 items rated on a 5-point Likert scale ranging from 0 ("not true at all") to 4 ("true nearly all the time"). The total score ranges from 0 to 100, with higher scores indicating greater resilience. The scale includes subcomponents related to personal competence, tolerance of

negative affect, positive acceptance of change, control, and spiritual influences. Numerous studies have confirmed the scale's high internal consistency and test-retest reliability. In Iranian populations, the CD-RISC has shown strong psychometric properties, including construct validity and Cronbach's alpha coefficients exceeding 0.85 in clinical and non-clinical samples.

#### 2.2.2. *Coping Styles*

Developed by Norman S. Endler and James D. A. Parker in 1990, the Coping Inventory for Stressful Situations (CISS) is a 48-item self-report questionnaire designed to assess individual coping styles. It includes three main subscales: Task-Oriented Coping, Emotion-Oriented Coping, and Avoidance-Oriented Coping. Items are rated on a 5-point Likert scale ranging from 1 ("not at all") to 5 ("very much"). The tool provides a comprehensive profile of how individuals typically respond to stress. The CISS has been extensively validated in various cultural contexts, including Iran, where it has demonstrated good construct validity, acceptable internal consistency (Cronbach's alpha above 0.80), and factor structure consistency with the original version.

#### 2.2.3. *Illness Perception*

The Illness Perception Questionnaire-Revised (IPQ-R), created by Moss-Morris et al. in 2002, is a well-established tool used to assess cognitive and emotional representations of illness. The IPQ-R includes 70 items covering seven key dimensions: Identity, Timeline (acute/chronic), Consequences, Personal Control, Treatment Control, Illness Coherence, and Emotional Representations. Each item is rated on a 5-point Likert scale. The tool allows for a detailed understanding of patients' beliefs about their illness. The IPQ-R has been validated in a wide range of chronic illness populations. In Iranian studies, the IPQ-R has demonstrated satisfactory psychometric properties, with reported Cronbach's alpha coefficients generally above 0.70 and confirmed construct validity.

#### 2.2.4. *Perceived Social Support*

The Multidimensional Scale of Perceived Social Support (MSPSS), developed by Zimet et al. in 1988, measures perceived social support from three sources: Family,

Friends, and Significant Other. The scale consists of 12 items rated on a 7-point Likert scale ranging from 1 ("very strongly disagree") to 7 ("very strongly agree"). Each subscale contains four items, and higher scores indicate greater perceived social support. The MSPSS is known for its brevity, clarity, and robust psychometric properties. In Iran, the MSPSS has been widely translated and validated, showing strong reliability (Cronbach's alpha > 0.85) and acceptable construct validity across both clinical and non-clinical populations.

#### 2.3. *Data Analysis*

Data were analyzed using SPSS version 27. Descriptive statistics—including frequency, percentage, mean, and standard deviation—were computed to summarize participants' demographic information. Pearson correlation coefficients were calculated to assess the relationships between psychological resilience (dependent variable) and the five independent variables: task-oriented coping, emotion-oriented coping, avoidance-oriented coping, illness perception, and perceived social support. Furthermore, multiple linear regression analysis was employed to examine the predictive role of all five independent variables in psychological resilience. The significance level was set at  $p < 0.05$ .

### 3. Findings and Results

All 400 participants in the study were women. In terms of age distribution, 91 women (22.75%) were between 18 and 29 years old, 181 women (45.25%) were between 30 and 44, and 128 women (32.00%) were aged 45 to 60. Regarding marital status, 219 participants (54.75%) were married, 145 (36.25%) were single, and 36 (9.00%) were either divorced or widowed. Educational background indicated that 84 participants (21.00%) had a high school diploma or less, 218 (54.50%) had a bachelor's degree, and 98 (24.50%) held postgraduate qualifications. These figures reflect a demographically diverse sample of women living with chronic migraine, offering a robust basis for the generalization of findings within this clinical population.

Table 1 presents the means and standard deviations of the two dependent variables (negative meta-emotions and sexual self-efficacy) across both intervention and control groups in pre-test and post-test phases.

**Table 1***Descriptive Statistics*

Variable	Mean	Standard Deviation
Psychological Resilience	67.43	11.26
Task-Oriented Coping	72.58	10.14
Emotion-Oriented Coping	64.92	9.88
Avoidance-Oriented Coping	61.13	10.37
Illness Perception (Negative)	58.74	12.42
Perceived Social Support	70.36	11.17

The descriptive statistics in **Table 1** show that the participants had a moderate to high level of psychological resilience ( $M = 67.43$ ,  $SD = 11.26$ ) and relatively high perceived social support ( $M = 70.36$ ,  $SD = 11.17$ ). Among coping styles, task-oriented coping was the most frequently used ( $M = 72.58$ ,  $SD = 10.14$ ), followed by emotion-oriented ( $M = 64.92$ ,  $SD = 9.88$ ) and avoidance-oriented coping ( $M = 61.13$ ,  $SD = 10.37$ ). Illness perception scores indicated a moderate degree of perceived threat or negativity regarding the condition ( $M = 58.74$ ,  $SD = 12.42$ ).

Prior to the regression analysis, the key statistical assumptions were tested and confirmed. Normality was assessed using Kolmogorov-Smirnov tests, with non-

significant results across all main variables (e.g., resilience:  $K-S = 0.056$ ,  $p = 0.087$ ), indicating that data distribution did not significantly deviate from normality. Linearity was verified through scatterplots, which showed consistent linear relationships between the independent variables and the dependent variable. Homoscedasticity was confirmed by evaluating residual plots, which revealed constant variance across predicted values. Tests for multicollinearity showed tolerance values ranging from 0.71 to 0.87 and Variance Inflation Factors (VIF) between 1.15 and 1.40, indicating no serious collinearity among predictors. These diagnostic checks supported the appropriateness of using Pearson correlations and multiple regression analysis for the dataset.

**Table 2***Pearson Correlation Coefficients Between Independent Variables and Psychological Resilience*

Independent Variable	r	p
Task-Oriented Coping	.61	< .001
Emotion-Oriented Coping	-.42	< .001
Avoidance-Oriented Coping	-.18	.003
Illness Perception (Negative)	-.55	< .001
Perceived Social Support	.66	< .001

As shown in **Table 2**, psychological resilience was significantly and positively correlated with task-oriented coping ( $r = .61$ ,  $p < .001$ ) and perceived social support ( $r = .66$ ,  $p < .001$ ). In contrast, it was negatively correlated with emotion-oriented coping ( $r = -.42$ ,  $p < .001$ ), avoidance-

oriented coping ( $r = -.18$ ,  $p = .003$ ), and illness perception ( $r = -.55$ ,  $p < .001$ ). These results indicate that adaptive coping and higher social support are associated with greater resilience, while maladaptive coping and negative illness beliefs correspond to lower resilience.

**Table 3***Summary of Regression Analysis Predicting Psychological Resilience from Illness Perception and Perceived Social Support*

Source	Sum of Squares	df	Mean Square	R	R <sup>2</sup>	Adj. R <sup>2</sup>	F	p
Regression	22413.87	2	11206.93	0.731	0.534	0.530	132.45	< .001
Residual	19545.61	397	49.22					
Total	41959.48	399						

**Table 3** presents the results of the regression model predicting psychological resilience from illness perception and perceived social support. The model was statistically

significant,  $F(2, 397) = 132.45$ ,  $p < .001$ , explaining approximately 53.4% of the variance in resilience ( $R^2 = .534$ ). The adjusted  $R^2$  of .530 indicates that the model

maintains its explanatory power after accounting for the number of predictors.

**Table 4***Regression Coefficients for Predicting Psychological Resilience*

Predictor	B	Standard Error	$\beta$	t	p
Constant	25.87	2.78	—	9.30	< .001
Illness Perception	-0.38	0.05	-.36	-7.60	< .001
Perceived Social Support	0.49	0.04	.48	11.04	< .001

As shown in [Table 4](#), both illness perception and perceived social support were significant predictors of psychological resilience. Illness perception had a negative effect ( $\beta = -.36$ ,  $p < .001$ ), indicating that higher perceived illness threat was associated with lower resilience. In contrast, perceived social support had a strong positive effect ( $\beta = .48$ ,  $p < .001$ ), suggesting that greater perceived support significantly increases psychological resilience.

#### 4. Discussion and Conclusion

The present study aimed to model the relationships between coping styles, illness perception, perceived social support, and psychological resilience in individuals diagnosed with chronic migraine. The findings revealed several statistically significant associations. Psychological resilience was positively correlated with task-oriented coping and perceived social support, and negatively correlated with emotion-oriented coping and negative illness perception. In addition, regression analysis indicated that both illness perception and perceived social support significantly predicted psychological resilience, jointly explaining a meaningful portion of the variance in resilience scores. These findings align with and expand upon existing literature, highlighting the critical interplay of psychological and social variables in shaping adaptation outcomes in chronic illness contexts.

The positive association between task-oriented coping and psychological resilience in this study supports a body of research suggesting that individuals who approach stressors with problem-solving strategies tend to experience more adaptive emotional outcomes. In migraine populations specifically, task-oriented coping has been associated with reduced psychological distress and enhanced self-regulation capacities ([Gürsoy & Toksoy, 2023](#)). Similarly, Chiro and O'Brien found that acceptance and cognitive reframing in daily coping behaviors were strongly associated with lower symptom burden and greater emotional well-being ([Chiro & O'Brien, 2011](#)). These findings underscore the functional

value of approach-oriented strategies that emphasize agency and constructive engagement with illness-related challenges. In contrast, emotion-oriented coping—characterized by self-blame, rumination, and emotional over-involvement—was inversely related to resilience in our findings, echoing previous research which associates such styles with poorer psychological adjustment and lower treatment adherence ([Ferrari & Russell, 2010](#); [Wolters et al., 2011](#)).

Interestingly, avoidance-oriented coping showed a weaker, statistically non-significant relationship with resilience. While avoidance strategies can sometimes serve short-term emotional regulation functions, their chronic use has been linked to long-term maladaptation in various populations ([Wolters et al., 2010](#); [Yu & Zhao, 2023](#)). The nuanced role of avoidance strategies in chronic illness thus warrants further investigation, particularly considering cultural and contextual moderators that may affect how such behaviors are perceived and utilized.

Another significant finding was the negative association between maladaptive illness perception and psychological resilience. This result is consistent with prior studies that demonstrate the detrimental impact of viewing one's illness as uncontrollable, unpredictable, or overwhelmingly negative ([Radat et al., 2009](#); [Seifert, 2012](#)). In chronic migraine patients, where the condition is often marked by high variability and resistance to treatment, a pessimistic illness perception can exacerbate helplessness and reduce engagement with proactive coping mechanisms ([Pistoia et al., 2022](#)). Our findings also align with those of Yuan et al., who observed that individuals with a stronger sense of control and understanding of their illness employed more effective coping strategies and reported higher emotional well-being ([Yuan et al., 2022](#)). These patterns reinforce the notion that cognitive representations of illness are not merely passive reflections but active determinants of coping behavior and psychological outcomes.

The role of perceived social support emerged as a robust predictor of resilience, consistent with decades of research

on the buffering effects of social resources in chronic illness management (Huang & Wu, 2021; Park & Chen, 2015). Participants in this study who reported higher levels of support from family, friends, or significant others demonstrated significantly greater psychological resilience. This is in line with Yan et al.'s findings in cardiac patients, where social support mediated the link between health literacy and symptom severity (Yan et al., 2025), and also with Xue et al.'s study on older adults with comorbidities, which highlighted the protective influence of family functioning against depression through improved coping styles (Xue et al., 2024). Notably, in the context of Iranian culture—where familial and social relationships are highly valued—the role of perceived support may be particularly salient and culturally reinforced, thereby amplifying its impact on psychological adaptation.

The interplay of these variables provides empirical support for integrated models of chronic illness adjustment, which posit that personal, cognitive, and social factors jointly influence resilience trajectories. For instance, individuals who maintain an optimistic view of their illness, utilize task-focused coping strategies, and perceive a strong support system are more likely to adapt positively to chronic migraine. Conversely, those with maladaptive illness beliefs, limited social resources, and emotion-centered coping styles are at higher risk for psychological deterioration. This interactional perspective aligns with the transactional model of stress and coping, as well as contemporary biopsychosocial frameworks that emphasize contextualized responses to chronic health conditions (Darbani & Atapour, 2023; Sirois et al., 2015).

In addition to these general trends, our findings resonate with studies exploring psychological resilience in migraine sufferers from different cultural and clinical perspectives. Balottin et al. employed personality assessment tools to highlight emotional dysregulation in adolescents with migraines, emphasizing the need for psychological interventions targeting emotional competence (Balottin et al., 2018). Likewise, Seifpour et al. demonstrated the efficacy of tailored educational programs that addressed coping mechanisms, which led to measurable improvements in migraine symptom management (Seifpour et al., 2019). Shahverdi et al. also found that psychological therapies aimed at cognitive and emotional regulation produced significant reductions in psychosomatic symptom severity and increased effective coping in women with migraine (Shahverdi et al., 2023). These studies underscore the relevance of psychological and behavioral interventions that

are aligned with the mediators identified in our model—namely coping style, illness perception, and social support.

Another dimension worth discussing is the relational and social impact of chronic migraine. Chronic pain often imposes a substantial burden on family systems, work environments, and social functioning, contributing to the erosion of patients' social networks and emotional resources (Hall et al., 2019; McPhee & Robinson, 2019). Huang et al. found that spousal relationships significantly influence quality of life in chronic illness populations, reinforcing the idea that resilience may be co-constructed within interpersonal contexts rather than purely individual (Huang et al., 2018). Our results are compatible with this relational interpretation of resilience, as higher perceived social support was associated with greater emotional adaptability and resourcefulness. Moreover, the relevance of culturally embedded coping mechanisms, such as collectivist family support, should be considered in interpreting these findings in non-Western contexts such as Iran.

Finally, recent developments in neurocognitive and behavioral medicine offer promising insights into how coping styles and resilience are supported or hindered by underlying neural and psychological mechanisms. For instance, Головачева et al. documented successful application of cognitive-behavioral therapy (CBT) in chronic migraine patients, illustrating the neural plasticity associated with changing maladaptive coping behaviors (Головачева et al., 2021). The use of CBT not only reduced pain but also enhanced emotional control, suggesting that therapeutic interventions can directly influence the core variables identified in our study. Similar observations have been reported in other chronic illness contexts, such as fibromyalgia and chronic lymphedema, where acceptance-based strategies and perceived support positively influenced quality of life (Huang & Wu, 2021). These results indicate that psychological resilience is not a fixed trait but a modifiable outcome, shaped by psychosocial and cognitive-behavioral interventions.

## 5. Limitations and Suggestions

This study, while informative, is not without limitations. First, the cross-sectional design prevents any causal inference between the studied variables. While significant associations were found, the directionality of influence cannot be determined with certainty. Second, the use of self-report questionnaires may introduce bias due to social desirability or inaccurate self-assessment. Participants may

have overestimated or underestimated their levels of resilience or support, affecting the accuracy of correlations and regressions. Third, the sample was restricted to patients in Tehran, potentially limiting the generalizability of findings to other regions or cultural contexts. Differences in healthcare access, sociocultural norms, and health literacy may moderate the relationships identified in this study. Additionally, while the study controlled for some demographic variables, other confounders—such as comorbid psychological disorders—were not assessed in detail and may have influenced the results.

Future research should employ longitudinal designs to examine changes in coping strategies, illness perceptions, and resilience over time. This would allow for the assessment of causal mechanisms and developmental trajectories. It is also recommended to include qualitative methods such as in-depth interviews or diary studies to capture the nuanced lived experiences of migraine patients, particularly in relation to how they perceive social support and illness identity. Moreover, further investigation into the role of specific cultural factors—such as familial obligations, spiritual beliefs, and gender roles—could enrich the understanding of how resilience is constructed and maintained in different cultural contexts. Comparative studies across multiple geographic regions or cultural groups could offer broader insights into universal versus culture-specific patterns of psychological adjustment in chronic migraine.

Healthcare professionals should incorporate psychological assessments of coping styles, illness perceptions, and social support levels into the routine evaluation of patients with chronic migraine. Psychologists and clinical counselors may use this information to design personalized interventions that foster task-oriented coping, reshape maladaptive illness beliefs, and strengthen social support systems. Educational workshops for patients and their families can be implemented to raise awareness about adaptive coping strategies and the importance of social connectedness. Furthermore, integrating resilience-building programs, such as cognitive-behavioral therapy, mindfulness training, and stress management courses, into migraine treatment plans can enhance patients' psychological adaptability and improve overall health outcomes.

## Authors' Contributions

Authors contributed equally to this article.

## Declaration

In order to correct and improve the academic writing of our paper, we have used the language model ChatGPT.

## Transparency Statement

Data are available for research purposes upon reasonable request to the corresponding author.

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## Declaration of Interest

The authors report no conflict of interest.

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## Ethical Considerations

The study protocol adhered to the principles outlined in the Helsinki Declaration, which provides guidelines for ethical research involving human participants.

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