

# The Mediating Role of Self-Efficacy and Social Support in the Effect of Psychological Hardiness on the Quality of Life of Physically Disabled People

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### ABSTRACT

The present study aimed to investigate the structural relationship between psychological hardiness and quality of life in physically and motor disabled individuals, with the mediating roles of self-efficacy and perceived social support. This applied, cross-sectional, correlational study was conducted using structural equation modeling among physically and motor disabled individuals in Mazandaran Province, Iran. The statistical population consisted of approximately 26,000 individuals registered in the provincial Welfare Organization, from whom 424 participants aged 14–40 years (277 males and 147 females) were selected through two-stage cluster sampling from Sari, Amol, Behshahr, and Chalus cities. Data were collected using the Ahvaz Psychological Hardiness Questionnaire, the SF-36 Quality of Life Questionnaire, Sherer's Self-Efficacy Scale, and the Sherbourne and Stewart Social Support Scale. The instruments demonstrated acceptable reliability coefficients ranging from 0.86 to 0.91. Descriptive statistics, Pearson correlation coefficients, Sobel tests, and structural equation modeling were performed using SPSS-22, AMOS, and SmartPLS software at a 95% confidence level. The results demonstrated significant positive relationships among all study variables. Psychological hardiness had significant direct effects on self-efficacy ( $\beta=0.10$ ,  $T=2.09$ ,  $P<0.01$ ), perceived social support ( $\beta=0.27$ ,  $T=2.53$ ,  $P<0.01$ ), and quality of life ( $\beta=0.10$ ,  $T=2.94$ ,  $P<0.01$ ). Self-efficacy also showed a significant direct effect on quality of life ( $\beta=0.11$ ,  $T=2.55$ ,  $P<0.01$ ), while perceived social support significantly predicted quality of life ( $\beta=0.18$ ,  $T=2.71$ ,  $P<0.01$ ). Pearson correlation analysis revealed the strongest correlation between psychological hardiness and quality of life ( $r=0.853$ ,  $P<0.01$ ). Sobel test findings confirmed the mediating role of self-efficacy ( $\beta=0.04$ ,  $Z=2.57$ ,  $P=0.01$ ) and perceived social support ( $\beta=0.03$ ,  $Z=2.74$ ,  $P=0.001$ ) in the relationship between psychological hardiness and quality of life. The proposed model explained 18% of the variance in self-efficacy, 14% in social support, and 11% in quality of life. The findings indicate that psychological hardiness contributes significantly to improving the quality of life of physically

disabled individuals both directly and indirectly through enhancing self-efficacy and perceived social support. Strengthening resilience-related psychological characteristics, promoting self-efficacy beliefs, and expanding supportive social networks may improve mental health and overall life satisfaction among individuals with physical and motor disabilities. Therefore, psychological interventions and rehabilitation programs focused on resilience enhancement and social support development are recommended for improving the well-being and quality of life of this population.

**Keywords:** *Psychological Hardiness, Self-Efficacy, Social Support, Quality of Life, Physical Disability.*

## 1. Introduction

Disability is considered one of the major public health and social challenges worldwide, affecting millions of individuals across different age groups and cultural contexts. People with physical and motor disabilities frequently encounter extensive psychological, social, and environmental difficulties that negatively influence their overall functioning and well-being (Davarmnesh & Barati Sade, 2007; Honey et al., 2010). Advances in medical science and rehabilitation services have increased life expectancy among individuals with disabilities; however, increased longevity has not necessarily resulted in improved quality of life or psychosocial adjustment (Iravani et al., 2021). Contemporary perspectives on disability emphasize that limitations experienced by individuals are not solely caused by physical impairments, but also arise from social exclusion, restricted participation opportunities, and inadequate psychological support systems (Strubbe et al., 2025; Van Timmeren et al., 2017). Consequently, understanding the psychological and social determinants associated with adaptation and quality of life among individuals with disabilities has become an important area of scientific inquiry.

In recent decades, the concept of quality of life has gained substantial attention in psychology, rehabilitation sciences, and health-related disciplines. Quality of life is generally defined as an individual's subjective evaluation of physical health, emotional well-being, social relationships, environmental satisfaction, and functional capacity within the context of personal goals and cultural values (Ghafari et al., 2013; Schel et al., 2015). Researchers have emphasized that quality of life extends beyond objective health status and includes an individual's perception of satisfaction with life circumstances and daily functioning (Awick et al., 2017). Individuals with physical and motor disabilities often experience lower levels of quality of life due to chronic physical limitations, social isolation, dependence on others, and reduced opportunities for educational, occupational, and

recreational engagement (Gelkop & Engel-Yeger, 2025; Russo et al., 2008). Studies have shown that people with disabilities are more vulnerable to emotional distress, depression, anxiety, and diminished social participation, all of which contribute to poorer quality of life outcomes (Dermani et al., 2019; Farahmand et al., 2019).

The prevalence of disability has increased considerably in recent decades because of population growth, aging, accidents, chronic diseases, and neurological disorders. Reports from rehabilitation and welfare organizations indicate that a substantial proportion of individuals with disabilities live in developing countries where rehabilitation services and psychosocial support systems are often inadequate (Mehrabi, 2017). Research conducted in Iran also indicates that individuals with physical disabilities face significant challenges related to accessibility, employment, education, and social integration (Sattari et al., 2005). Such difficulties can reduce psychological well-being and negatively affect adaptive functioning. Therefore, identifying protective psychological factors that can enhance resilience and improve quality of life among this population is critically important.

Among the psychological constructs associated with successful adaptation to adversity, psychological hardiness has received increasing attention. Psychological hardiness is considered a positive personality trait characterized by commitment, control, and challenge, enabling individuals to cope effectively with stressful life events and adverse circumstances (Kiamarzi, 1998; Zeer et al., 2016). Individuals with high psychological hardiness tend to interpret stressful experiences as manageable and meaningful rather than overwhelming or threatening. This characteristic enhances emotional regulation, persistence, optimism, and adaptive coping strategies in difficult situations (Albakova et al., 2020). Hardiness has been associated with better mental health outcomes, reduced stress vulnerability, and improved psychosocial adjustment in various clinical and nonclinical populations (Kim et al., 2016; Sadeghi & Einaky, 2020).

Research findings suggest that psychological hardiness plays a significant role in promoting health-related quality of life among individuals experiencing chronic stress or illness. For example, studies on patients with chronic diseases have demonstrated that higher levels of psychological hardiness are associated with lower psychological distress and greater life satisfaction (Bahrami et al., 2018; Shirazi et al., 2018). Similarly, investigations among individuals with disabilities indicate that hardiness contributes to emotional stability, better coping skills, and enhanced adaptation to environmental challenges (Kuprieieva et al., 2020). Hardiness may therefore serve as an important psychological resource that enables individuals with physical disabilities to maintain hope, resilience, and a sense of control despite ongoing limitations and societal barriers.

Another important variable associated with adaptation and quality of life is self-efficacy. Self-efficacy refers to an individual's belief in their ability to organize and execute actions necessary to manage specific situations and achieve desired outcomes. This concept plays a central role in cognitive and behavioral functioning because it influences motivation, persistence, emotional reactions, and problem-solving abilities (Boyraz & Sayger, 2011). Individuals with high self-efficacy are generally more confident in dealing with stressful situations and demonstrate greater perseverance when encountering obstacles. Conversely, low self-efficacy is associated with helplessness, anxiety, reduced motivation, and poorer psychological adjustment.

Numerous studies have confirmed the positive association between self-efficacy and quality of life across diverse populations. Higher self-efficacy has been linked to improved mental health, better treatment adherence, and enhanced functional outcomes among individuals with chronic illnesses and disabilities (Bellin et al., 2015; Haugland, 2013). Research has also shown that self-efficacy can mediate the relationship between psychological characteristics and life satisfaction. For example, self-efficacy has been identified as an important predictor of adaptive functioning and psychosocial adjustment among individuals using prosthetic devices following limb amputation (Miller et al., 2021). Similarly, studies involving patients with chronic diseases demonstrated that stronger self-efficacy beliefs contribute to better quality of life through increased self-management and emotional resilience (Li et al., 2025; Moshavvegh et al., 2021). In rehabilitation contexts, self-efficacy facilitates active participation in treatment and strengthens confidence in coping with physical limitations.

The concept of social support has also emerged as a crucial determinant of mental health and quality of life among individuals with disabilities. Social support generally refers to the emotional, informational, and practical assistance individuals receive from family members, friends, and social networks (Yilmaz & Bozo, 2019). Strong social support systems provide emotional comfort, reduce feelings of loneliness, and increase individuals' sense of belonging and security. For people with physical disabilities, social support may help reduce stress associated with social stigma, dependency, and functional limitations.

Previous studies consistently indicate that social support is positively associated with psychological well-being, resilience, and quality of life. Individuals who perceive greater support from others generally experience lower levels of depression and anxiety and demonstrate better coping strategies when facing stressful situations (Gholami Jam et al., 2018; Mirghazanfari & Khosh Akhlagh, 2021). Social support has also been identified as a protective factor that strengthens psychological adaptation and improves health outcomes among individuals with chronic conditions (Azadi et al., 2020). Furthermore, research suggests that social support may enhance self-efficacy by encouraging individuals to believe in their capacities and by facilitating access to emotional and instrumental resources (Cattik & Aksoy, 2018). This interaction between social support and self-efficacy may be especially important for individuals with disabilities who often require substantial emotional and practical assistance in daily life.

Evidence also suggests that psychological hardiness may indirectly influence quality of life through mechanisms such as self-efficacy and social support. Individuals with higher hardiness are more likely to develop positive beliefs regarding their abilities and to establish stronger interpersonal relationships, thereby increasing their perceived social support and adaptive functioning (Martinez-Marti & Ruch, 2017). Research has demonstrated that psychological hardiness contributes to improved mental health and quality of life partly through strengthening resilience and perceived support systems (Farahbakhsh Beh et al., 2019). Likewise, studies among women with chronic illnesses have shown that social support mediates the relationship between psychological hardiness and psychological well-being (Azadi et al., 2020). Family resilience interventions have also been found to improve psychological hardiness among caregivers of children with disabilities, highlighting the interconnected nature of these

psychological and social variables (Sabzmanesh Jafari et al., 2021).

Despite the growing body of research concerning disability and quality of life, several important gaps remain in the literature. First, many previous studies have focused primarily on medical or functional aspects of disability while paying limited attention to psychological resources and mediating psychosocial mechanisms. Second, although individual associations among psychological hardiness, self-efficacy, social support, and quality of life have been examined, fewer studies have simultaneously investigated the structural relationships among these variables within a comprehensive model, particularly among individuals with physical and motor disabilities. Third, the majority of existing studies have been conducted in populations with chronic diseases or among caregivers rather than among individuals with disabilities themselves (Farahmand et al., 2019; Hosseini et al., 2024). Therefore, further investigation is necessary to clarify how psychological hardiness may influence quality of life both directly and indirectly through self-efficacy and perceived social support in disabled populations. The present study aimed to investigate the structural relationship between psychological hardiness and quality of life among individuals with physical and motor disabilities, with the mediating roles of self-efficacy and perceived social support.

## 2. Methods and Materials

### 2.1. Study Design and Participants

The present study employed an applied, cross-sectional research design. According to official statistical reports, the total number of individuals with disabilities covered by welfare services in Mazandaran Province exceeds 68,000. However, the study population consisted of all individuals with physical disabilities registered in the General Welfare Organization of Mazandaran Province, estimated at approximately 26,000 individuals in 2025. In the present study, only individuals with sensory and motor disabilities were included. Based on the Krejcie and Morgan sampling table, a sample size of 384 participants was determined. Participants were selected using a two-stage cluster sampling method.

In the first stage, Mazandaran Province was divided into four geographical regions: north, south, east, and west. One city was selected from each region, and individuals with disabilities were recruited accordingly. Participants with welfare records from Sari were selected from the northern

region, those from Amol from the southern region, those from Behshahr from the eastern region, and those from Chalus from the western region. In the second stage, the welfare departments of the selected cities were consulted, and finally, 424 individuals aged between 14 and 40 years (277 males and 147 females) were selected as the study sample. Four standardized questionnaires were used to collect the research data.

### 2.2. Measures

**Psychological Hardiness Questionnaire:** Psychological hardiness was assessed using the 27-item Ahvaz Psychological Hardiness Questionnaire developed and validated by Kiamarzi et al. (1998). Each item is rated on a 4-point Likert scale ranging from “never” to “most of the time,” scored from 0 to 3, respectively. Higher total scores indicate greater levels of psychological hardiness. The questionnaire consists of three subscales: commitment, control, and challenge (Pourakbari et al., 2014). Previous studies reported test–retest reliability and Cronbach’s alpha coefficients of 0.84 and 0.76, respectively (Sabzmanesh Jafari et al., 2021). In the present study, the Cronbach’s alpha coefficient for the questionnaire was 0.91, indicating satisfactory internal consistency.

**Quality of Life Questionnaire:** Quality of life was measured using the 36-item Short Form Health Survey (SF-36), developed by the World Health Organization as a self-report instrument for assessing quality of life. The psychometric properties of both telephone and mail versions of this instrument were examined by McHorney et al. (1993). The questionnaire consists of eight subscales: physical functioning (10 items), role limitations due to physical health (4 items), role limitations due to emotional problems (3 items), energy/fatigue (4 items), emotional well-being (4 items), social functioning (4 items), pain (2 items), and general health (5 items). These subscales are further combined into two broader dimensions: physical health and mental health. Lower scores indicate poorer quality of life, whereas higher scores reflect better quality of life. Previous findings supported the construct validity of all dimensions of the instrument except the spiritual dimension (Farahmand et al., 2019). In the present study, the Cronbach’s alpha coefficient for the SF-36 was 0.86, indicating acceptable reliability.

**Self-Efficacy Questionnaire:** Self-efficacy was measured using the Self-Efficacy Scale developed by Sherer et al. (1982). The instrument consists of 17 items rated on a 5-

point Likert scale. Items 1, 3, 8, 9, 13, and 15 are scored directly from strongly disagree to strongly agree, whereas the remaining items are reverse scored. Total scores range from low to high self-efficacy. To establish construct validity, correlations between this scale and several related measures were previously examined. Studies conducted in Iran reported split-half reliability coefficients ranging from 0.76 to 0.85 and Cronbach’s alpha coefficients ranging from 0.79 to 0.85 (Sherer et al., 1982; Dubé et al., 2023). In the present study, the Cronbach’s alpha coefficient of the self-efficacy questionnaire was 0.87, demonstrating acceptable reliability.

**Social Support Questionnaire:** Social support was assessed using the Social Support Scale developed by Sherbourne and Stewart (1991). This self-report scale consists of 19 items measuring the level of perceived social support received by the individual across five subscales: tangible support, emotional support, informational support, affectionate support, and positive social interaction. Tangible support assesses material and behavioral assistance; emotional support measures empathy, positive affect, and encouragement to express emotions; informational support evaluates guidance and feedback; affectionate support assesses expressions of love and care; and positive social interaction measures the availability of

individuals for leisure and recreational activities (Yılmaz et al., 2019). Responses are rated on a 5-point Likert scale ranging from never (1) to always (5). Previous studies reported Cronbach’s alpha coefficients ranging from 0.74 to 0.93 for this scale (Gholami Jam et al., 2018; Yılmaz et al., 2019). In the present study, the Cronbach’s alpha coefficient for the social support questionnaire was 0.88, indicating acceptable internal consistency.

### 2.3. Data Analysis

Both descriptive and inferential statistical methods were used to analyze the data. In the descriptive statistics section, frequencies, percentages, means, and standard deviations were calculated to describe the study variables. In the inferential statistics section, the Kolmogorov–Smirnov test was employed to assess the normality of the data distribution. Pearson’s correlation coefficient was used to test the relationships among the study variables using SPSS version 22 at a 95% confidence level. Structural equation modeling was conducted using SmartPLS software.

## 3. Findings and Results

The descriptive statistics, including means and standard deviations of the study variables, are presented in Table 1.

**Table 1**

*Descriptive Statistics of the Research Variables*

Variables	M	SD
Psychological Hardiness	4.05	2.88
Quality of Life	3.89	1.68
Self-Efficacy	4.11	2.97
Social Support	3.76	2.01

The Pearson correlation coefficients among the research variables are presented in Table 2.

**Table 2**

*Correlation Matrix of the Research Variables*

Variables	1	2	3	4
1. Psychological Hardiness	1			
2. Quality of Life	.853**	1		
3. Self-Efficacy	.610**	.615**	1	
4. Social Support	.686**	.673**	.629**	1

According to Table 2, all obtained correlation coefficients were positive and statistically significant. The strongest correlation was observed between psychological hardiness

and quality of life ( $r = .853, p < .01$ ), whereas the weakest correlation was found between psychological hardiness and self-efficacy ( $r = .610, p < .01$ ). The results of Levene’s test

indicated homogeneity of variances, as the significance values were greater than .05. In addition, the Kolmogorov–Smirnov test was used to assess the normality of the data distribution. Variables with significance levels greater than

.05 were considered normally distributed, supporting the use of parametric statistical tests.

Table 3 presents the path coefficients of the variables in the proposed structural model.

**Table 3**

*Path Coefficients of the Variables in the Structural Model*

Effect Type	Path From	Path To	B	$\beta$	SE	T (Sig.)
Direct	Psychological Hardiness	Self-Efficacy	0.12	0.10	0.05	2.09 (.002)**
Direct	Psychological Hardiness	Social Support	0.31	0.27	0.06	2.53 (.001)**
Direct	Psychological Hardiness	Quality of Life	0.16	0.10	0.07	2.94 (.001)**
Direct	Self-Efficacy	Quality of Life	0.22	0.11	0.05	2.55 (.002)**
Direct	Social Support	Quality of Life	0.21	0.18	0.08	2.71 (.001)**
Indirect	Psychological Hardiness	Self-Efficacy	0.06	0.04	0.002	2.03 (.002)**
Indirect	Psychological Hardiness	Social Support	0.05	0.03	0.02	3.91 (.001)**
Total	Psychological Hardiness	Self-Efficacy	0.21	0.18	0.05	2.85 (.001)**
Total	Psychological Hardiness	Social Support	0.38	0.31	0.06	2.73 (.002)**
Total	Psychological Hardiness	Quality of Life	0.24	0.18	0.07	3.01 (.001)**
Total	Self-Efficacy	Quality of Life	0.28	0.22	0.05	2.29 (.002)**
Total	Social Support	Quality of Life	0.23	0.17	0.06	3.64 (.001)**

The results presented in Table 3 and the structural model diagrams indicate that, in the direct effects section, the standardized beta coefficient for the path from psychological hardiness to self-efficacy was  $\beta = .10$ , which was statistically significant at the  $p < .01$  level ( $T = 2.09$ ). The standardized beta coefficient for the path from psychological hardiness to social support was  $\beta = .27$  ( $T = 2.53$ ,  $p < .01$ ). Furthermore, the standardized beta coefficient for the path from psychological hardiness to quality of life was  $\beta = .10$  ( $T = 2.94$ ,  $p < .01$ ).

The standardized beta coefficient for the path from self-efficacy to quality of life was  $\beta = .11$  ( $T = 2.55$ ,  $p < .01$ ). In addition, the standardized beta coefficient for the path from

social support to quality of life was  $\beta = .18$  ( $T = 2.71$ ,  $p < .01$ ). In the indirect effects section, the standardized beta coefficient for the path from psychological hardiness to self-efficacy was  $\beta = .04$  ( $T = 2.03$ ,  $p < .01$ ), while the standardized beta coefficient for the path from psychological hardiness to social support was  $\beta = .03$  ( $T = 3.91$ ,  $p < .01$ ).

The residual effects of the endogenous variables in the conceptual model indicated that approximately 18% of the variance in self-efficacy, 14% of the variance in social support, and 11% of the variance in quality of life were explained by the variables included in the model.

The results of the Sobel test used to examine the mediating hypotheses are presented in Table 4.

**Table 4**

*Results of the Sobel Test for Mediating Effects*

Hypothesis	$\beta$	Z Value	Sig.
The mediating role of self-efficacy in the relationship between psychological hardiness and quality of life among people with disabilities	0.04	2.57	.01
The mediating role of perceived social support in the relationship between psychological hardiness and quality of life among people with disabilities	0.03	2.74	.001

According to the results of the Sobel test presented in Table 4, both self-efficacy and perceived social support significantly mediated the relationship between

psychological hardiness and quality of life among individuals with disabilities.

**Figure 1**

*Conceptual research model based on non-standardized beta coefficients.*

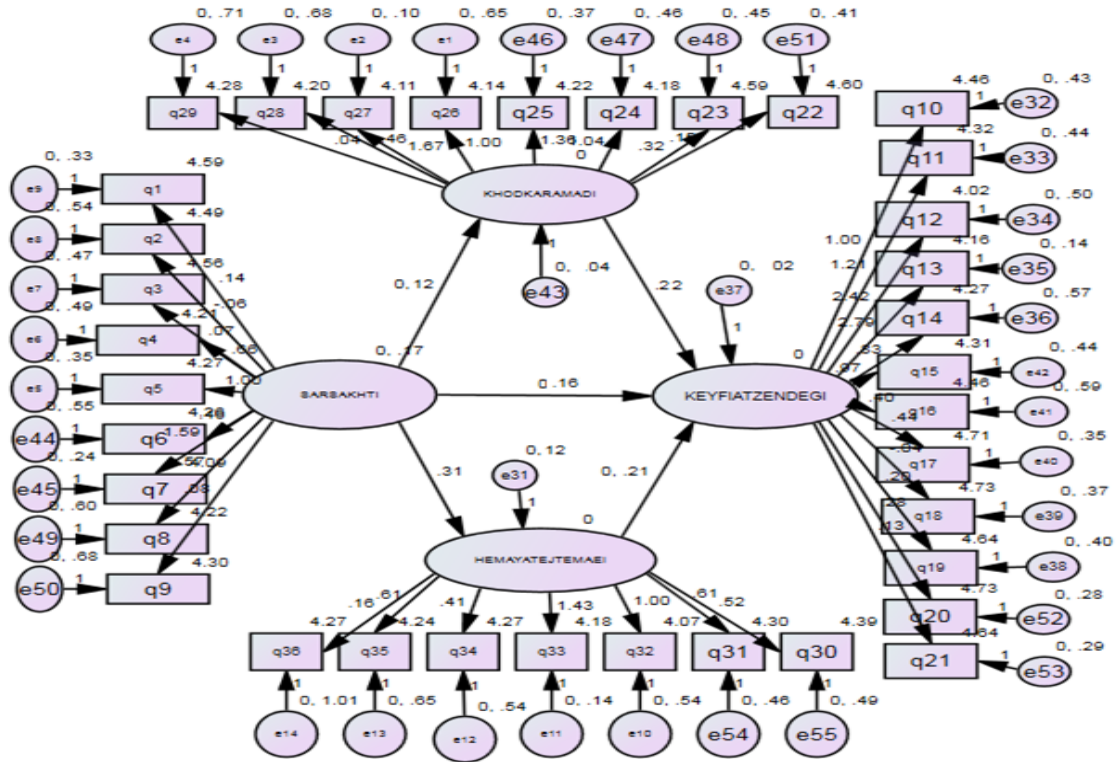
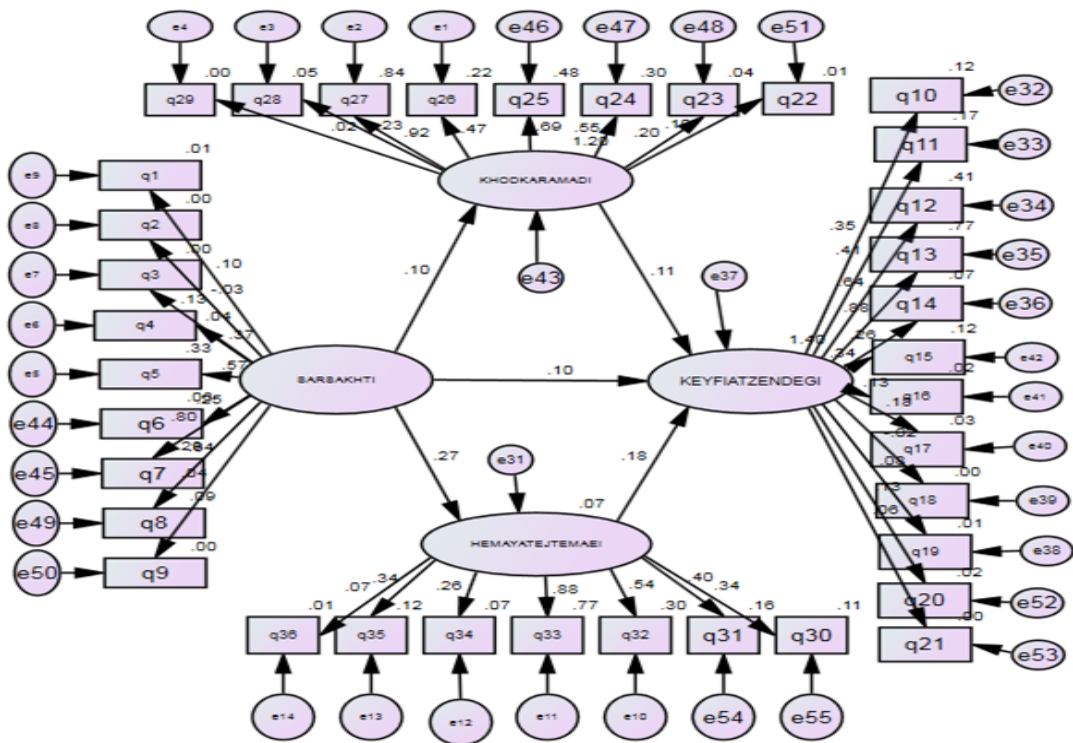


Figure 2

Conceptual research model based on standardized beta coefficients.



#### 4. Discussion

The present study aimed to investigate the structural relationships between psychological hardiness and quality of life among individuals with physical and motor disabilities, with the mediating roles of self-efficacy and perceived social support. The findings demonstrated that psychological hardiness had significant direct effects on self-efficacy, perceived social support, and quality of life. Furthermore, self-efficacy and perceived social support both had significant direct effects on quality of life. The results also confirmed the mediating roles of self-efficacy and perceived social support in the relationship between psychological hardiness and quality of life among individuals with disabilities.

One of the major findings of the present study was the significant positive relationship between psychological hardiness and quality of life among physically disabled individuals. This finding is consistent with previous studies indicating that hardiness functions as a protective psychological resource against stress and emotional difficulties (Farahbakhsh Beh et al., 2019; Hosseini et al., 2024; Kim et al., 2016; Pourakbari et al., 2014; Shirazi et al., 2018). Individuals with high psychological hardiness generally perceive stressful situations as manageable and meaningful rather than threatening, which enables them to maintain emotional balance and adaptive functioning despite adversity (Albakova et al., 2020; Zeer et al., 2016). For individuals with physical disabilities, the ability to maintain a sense of commitment, control, and challenge may be especially important because they frequently encounter environmental barriers, social stigma, and limitations in daily functioning. Psychological hardiness may therefore help these individuals reinterpret adversity in a more constructive manner and develop adaptive coping strategies that improve overall life satisfaction.

The findings are also aligned with studies emphasizing the role of hardiness in promoting resilience and psychological well-being among vulnerable populations (Bahrami et al., 2018; Sadeghi & Einaky, 2020). Hardiness appears to reduce the psychological burden associated with disability by strengthening emotional regulation and enhancing perseverance during stressful situations. Individuals with high hardiness are more likely to engage actively in rehabilitation processes, maintain hope regarding the future, and preserve a sense of personal competence. Such adaptive characteristics may directly improve

perceptions of quality of life by increasing emotional stability, self-confidence, and social participation. Moreover, previous evidence suggests that hardiness is associated with lower levels of psychological distress and greater subjective well-being among individuals experiencing chronic health conditions (Awick et al., 2017; Shokrpour et al., 2022). Therefore, the positive relationship observed in the present study further supports the idea that psychological hardiness is an essential psychological factor in successful adaptation to disability.

Another important finding of the present study was the significant positive relationship between psychological hardiness and self-efficacy. This finding is consistent with previous investigations demonstrating that psychologically hardy individuals tend to report stronger beliefs in their ability to manage life challenges and stressful experiences (Boyraz & Sayger, 2011; Martinez-Marti & Ruch, 2017; Moshavvegh et al., 2021). Hardiness contributes to individuals' confidence in their personal abilities because it encourages active problem-solving, persistence, and positive appraisal of difficulties. Individuals with disabilities who possess higher levels of hardiness may become more motivated to confront environmental and physical limitations rather than avoid them. Consequently, they develop stronger beliefs regarding their ability to manage daily responsibilities and adapt to challenging situations.

This finding is also consistent with studies showing that self-efficacy plays a central role in adaptive functioning among individuals with chronic illnesses and disabilities (Dube et al., 2023; Li et al., 2025). Self-efficacy influences emotional adjustment by shaping individuals' expectations regarding success and failure. People with higher self-efficacy are more likely to persist in rehabilitation efforts, maintain social engagement, and use effective coping strategies when facing stressful conditions. Psychological hardiness may therefore function as an underlying personality resource that strengthens self-efficacy beliefs by fostering a sense of mastery and personal control. From a theoretical perspective, individuals who perceive themselves as capable of influencing outcomes despite adversity are less likely to experience helplessness and psychological withdrawal. Consequently, hardiness contributes to greater self-confidence and enhanced psychological adaptation among individuals with disabilities.

The findings further revealed that psychological hardiness had a significant positive effect on perceived social support. This result is in line with studies demonstrating that individuals with higher hardiness are

generally more capable of establishing and maintaining effective interpersonal relationships (Azadi et al., 2020; Mirghazanfari & Khosh Akhlagh, 2021). Psychologically hardy individuals often display greater emotional openness, social initiative, and communication skills, which facilitate stronger connections with others. Individuals with disabilities who possess high levels of hardiness may be more willing to seek support from family members, peers, and rehabilitation professionals. They may also perceive available support more positively because they interpret social interactions in a constructive and hopeful manner.

Previous research has emphasized the importance of social support as a protective factor against psychological distress and social isolation among individuals with disabilities (Gholami Jam et al., 2018; Yilmaz & Bozo, 2019). Supportive social relationships provide emotional reassurance, practical assistance, and opportunities for participation in social activities, all of which contribute to improved psychosocial functioning. Hardiness may facilitate access to these resources by encouraging adaptive interpersonal behaviors and reducing avoidance tendencies. Therefore, the present findings suggest that psychologically hardy individuals are better equipped to develop supportive social networks that can buffer the negative consequences of disability.

The present study also demonstrated that self-efficacy had a significant direct effect on quality of life. This finding is consistent with numerous previous studies indicating that self-efficacy is strongly associated with psychological well-being, life satisfaction, and adaptive functioning (Bellin et al., 2015; Li et al., 2025; Miller et al., 2021). Individuals with higher self-efficacy tend to believe that they can effectively manage life demands and overcome obstacles. Such beliefs contribute to greater emotional resilience, reduced stress, and increased motivation to engage in health-promoting behaviors. For individuals with physical disabilities, self-efficacy may be particularly important because successful adaptation often requires continuous effort in rehabilitation, social interaction, and daily functioning.

Self-efficacy may improve quality of life by reducing feelings of dependency and helplessness. Individuals who believe in their capabilities are more likely to participate actively in educational, occupational, and social activities despite physical limitations. They are also more likely to interpret challenges as manageable and maintain a sense of personal agency. Previous findings have shown that stronger self-efficacy beliefs are associated with better emotional adjustment and lower levels of depression among

individuals with disabilities and chronic diseases (Haugland, 2013; Moshavvegh et al., 2021). Therefore, the present findings reinforce the importance of strengthening self-efficacy as a key psychological mechanism for improving quality of life in disabled populations.

Another important finding was the significant positive effect of perceived social support on quality of life. This result is consistent with studies indicating that supportive social environments contribute substantially to emotional adjustment, resilience, and overall well-being among individuals with disabilities (Cattik & Aksoy, 2018; Dermani et al., 2019; Farahmand et al., 2019). Social support provides emotional encouragement, practical assistance, and opportunities for meaningful interpersonal interactions. Such experiences reduce loneliness, enhance self-worth, and strengthen feelings of social belonging. Individuals with disabilities often face social exclusion and stigma, making supportive relationships particularly important for maintaining psychological well-being.

Perceived social support may also improve quality of life by reducing stress and increasing individuals' confidence in their ability to cope with challenges. Supportive family members, friends, and professionals can provide emotional reassurance and practical guidance during difficult situations. Previous evidence has shown that social support functions as a protective factor against depression, anxiety, and emotional exhaustion among vulnerable populations (Azadi et al., 2020; Sharifi Fardshad et al., 2021). Therefore, the findings of the present study highlight the importance of strengthening social support systems for individuals with physical disabilities in order to improve psychosocial adjustment and life satisfaction.

One of the most important findings of the present study was the mediating role of self-efficacy in the relationship between psychological hardiness and quality of life. This finding suggests that psychologically hardy individuals may experience better quality of life partly because hardiness strengthens their confidence in their own abilities. This result is consistent with studies indicating that self-efficacy mediates the relationship between positive psychological characteristics and psychological well-being (Martinez-Marti & Ruch, 2017; Miller et al., 2021). Hardiness may increase individuals' willingness to confront challenges and persist despite obstacles, which subsequently enhances their beliefs regarding personal competence. Increased self-efficacy then contributes to greater emotional adjustment, life satisfaction, and adaptive functioning.

## 5. Conclusion

The mediating role of perceived social support was confirmed in the present study. This finding indicates that psychological hardiness may indirectly improve quality of life through enhancing individuals' perception of available social resources. Psychologically hardy individuals may establish more effective relationships and seek assistance more actively, thereby increasing their access to emotional and practical support. Such support can buffer stress, reduce emotional distress, and strengthen social integration. This finding is consistent with studies showing that social support mediates the relationship between psychological variables and quality of life among individuals experiencing chronic stress or disability (Farahbakhsh Beh et al., 2019; Mirghazanfari & Khosh Akhlagh, 2021). Therefore, the present study highlights the interconnected roles of personality characteristics, cognitive beliefs, and social resources in shaping the quality of life of individuals with disabilities.

Despite the valuable findings of the present study, several limitations should be acknowledged. First, the cross-sectional design of the study limits the ability to establish causal relationships among the variables. Second, the study sample was limited to individuals with physical and motor disabilities in Mazandaran Province, which may reduce the generalizability of the findings to other regions or disability groups. Third, the study relied exclusively on self-report questionnaires, which may be influenced by response biases such as social desirability and subjective interpretation. In addition, several potentially important variables, including socioeconomic status, severity of disability, family functioning, and personality traits, were not examined in the present model.

Future studies are recommended to use longitudinal and experimental designs to clarify the causal relationships among psychological hardiness, self-efficacy, social support, and quality of life. Researchers should also examine these relationships in different disability populations and cultural contexts to improve the generalizability of findings. Investigating additional mediating and moderating variables, such as resilience, coping strategies, emotional regulation, and family cohesion, may further expand understanding of psychosocial adaptation among individuals with disabilities. Moreover, qualitative studies may provide deeper insight into the lived experiences and psychological challenges faced by this population.

From a practical perspective, the findings of the present study suggest that rehabilitation and psychological intervention programs should focus on strengthening psychological hardiness, self-efficacy, and social support among individuals with disabilities. Counseling interventions aimed at enhancing adaptive coping strategies, emotional resilience, and positive self-beliefs may improve quality of life outcomes. Rehabilitation centers and welfare organizations should also develop social support programs that encourage family involvement, peer interaction, and community participation. In addition, policymakers should prioritize accessible mental health and psychosocial services for individuals with disabilities in order to promote social integration, emotional well-being, and overall life satisfaction.

### Authors' Contributions

Authors equally contributed 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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### Ethics 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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