Original article

The relationship between social participation and depressive symptoms among patients with chronic diseases at Hue University of Medicine and Pharmacy Hospital

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Abstract

Background: Chronic diseases negatively affect quality of life, increase disability, and limit physical activities and social participation among patients with chronic diseases. Consequently, they may increase the risk of mental health problems and contribute to depressive symptoms in some patients with chronic diseases.

Objectives: The study aimed to assess social participation and depressive symptoms among patients with chronic diseases receiving treatment at Hue University of Medicine and Pharmacy Hospital, and to determine the relationship between social participation and depressive symptoms among these patients.

Materials and methods: An analytical cross-sectional study was conducted among 124 patients with chronic diseases receiving treatment at Hue University of Medicine and Pharmacy Hospital from April to August 2026. A structured questionnaire was used to assess social participation and depressive symptoms among the patients.

Results: Patients with chronic diseases had a mean P-Scale Short score of 12.60 ± 5.29, indicating mild restriction in social participation, and a mean PHQ-9 score of 6.06 ± 4.32, indicating mild depressive symptoms. A significant positive relationship was found between participation restriction and depressive symptoms among patients with chronic diseases after adjustment for other variables (B = 0.474, β = 0.580, 95% CI: 0.332 to 0.616, $p < 0.001$).

Conclusion: Patients with chronic diseases experienced mild restriction in social participation and mild depressive symptoms. Participation restriction was positively associated with depressive symptoms, highlighting the importance of addressing both mental health and social participation in the management and care of patients with chronic diseases.

Key words: *social participation; depressive symptoms; chronic diseases; P-Scale Short; PHQ-9.*

1. INTRODUCTION

Chronic diseases are conditions that persist over a long period, are often not curable, and tend to recur, resulting in functional impairment, reduced quality of life, and increased healthcare needs if not properly managed. Common chronic diseases include cardiovascular diseases, cancer, chronic respiratory diseases, diabetes, and arthritis [1]. In Vietnam, chronic diseases have become an urgent public health issue, with their prevalence increasing substantially in recent years. From 2015 to 2021, the prevalence of hypertension among adults increased from approximately one in five people to more than one in four, while the prevalence of diabetes also increased from one in 24 people to one in 14 [2].

Chronic diseases negatively affect quality of life, increase disability, and limit physical activities among affected individuals [3]. These limitations may reduce individuals' ability to participate in educational, occupational, recreational, and other social activities, making it difficult for them to maintain social relationships. When social participation is restricted, patients may become isolated from their social networks and communities, thereby increasing the risk of mental health problems and contributing to depressive symptoms in some individuals with chronic diseases [4]. To improve patients' social participation and mental health, nurses need to understand the impact of chronic conditions on patients and develop appropriate care and health education plans.

In recent years, numerous studies worldwide have investigated social participation and depressive symptoms among patients with chronic diseases. In Indonesia, a study by Komalasari et al. (2022)

found that patients with type 2 diabetes mellitus with vestibular dysfunction had a mean participation restriction score of 32.1 ± 6.3. Among these patients, 43.6% experienced moderate restrictions and 56.4% experienced severe restrictions in participating in social activities [5]. A study by Vutova et al. (2021) found that the mean score for depressive symptoms among patients with chronic diseases was 7.447 (95% CI: 6.366 - 8.529). Among the patients, 64.9% had depressive symptoms, including 50.9% with mild and 14% with severe [6]. In Vietnam, research on social participation among patients with chronic diseases remains limited. Existing Vietnamese studies have mainly focused on depressive symptoms in specific chronic disease populations. For example, Tran Nhu Minh Hang et al. (2020) reported a 39% prevalence of depressive symptoms among patients with type 2 diabetes mellitus, as assessed using the PHQ-9, including 2.8% with severe symptoms, 9.5% with moderate symptoms, and 26.7% with mild symptoms [7]. Similarly, Tran Viet Luc et al. (2023) found that 53.7% of older patients with osteoporosis had depressive symptoms, as assessed using the PHQ-9 [8]. However, these studies primarily examined depressive symptoms within specific chronic disease groups and did not specifically assess social participation or its relationship with depressive symptoms.

Social participation is closely related to mental health, and reduced social participation may be associated with increased depressive symptoms. Previous studies have reported significant associations between social participation and depressive symptoms among individuals with chronic conditions [9], [10]. However, much of the existing evidence has focused on specific chronic diseases or particular patient populations, and evidence regarding the relationship between social participation and depressive symptoms among patients with chronic diseases more broadly remains limited, particularly in Vietnam. Although chronic diseases differ in their clinical characteristics and functional consequences, many can affect patients' ability to perform daily activities, maintain social roles, and participate in social life. Examining both social participation and depressive symptoms among patients with chronic diseases may help clarify their relationship.

Hue University of Medicine and Pharmacy Hospital is a Grade I public hospital that receives more than 250,000 outpatient visits and hospital admissions annually. However, research examining social participation and depressive symptoms simultaneously, as well as their relationship, among patients with chronic diseases at Hue University of Medicine and Pharmacy Hospital remains limited. Therefore, the present study aimed to address this gap by assessing social participation and depressive symptoms and examining their relationship among patients with chronic diseases receiving treatment at Hue University of Medicine and Pharmacy Hospital. This study may provide additional evidence on the psychosocial impact of chronic illness and provide a basis for nurses and healthcare professionals to identify patients with greater participation restriction who may require further psychological assessment and supportive interventions. We conducted the study entitled: **"The relationship between social participation and depressive symptoms among patients with chronic diseases at Hue University of Medicine and Pharmacy Hospital"** with the following objectives:

1. To assess social participation and depressive symptoms status among patients with chronic diseases receiving treatment at Hue University of Medicine and Pharmacy Hospital.

2. To determine the relationship between social participation and depressive symptoms among these patients.

2. MATERIALS AND METHODS

2.1. Study participants

The study was conducted among patients with chronic diseases receiving treatment at the Department of General Internal Medicine - Endocrinology - Musculoskeletal and the Department of Cardiology, Hue University of Medicine and Pharmacy Hospital.

In this study, chronic diseases were defined as conditions diagnosed by a physician and documented in the patients' medical records. The study included patients diagnosed with hypertension, diabetes, respiratory diseases, musculoskeletal diseases, or other chronic conditions requiring ongoing management and follow-up.

2.1.1. Inclusion criteria

- Patients with chronic diseases receiving treatment at the Department of General Internal Medicine - Endocrinology - Musculoskeletal and the Department of Cardiology.
- Patients who agreed to participate in the study.

2.1.2. Exclusion criteria

- Patients who were unable to communicate or complete the questionnaire.

2.2. Study Setting and Period

Hue University of Medicine and Pharmacy Hospital, from April 2026 to August 2026.

2.3. Study methods

2.3.1. Study design

Analytical cross-sectional study.

2.3.2. Sample size and sampling

- The sample size was calculated using G*Power 3.1.9.7, based on a multiple linear regression analysis. An α of 0.05, an effect size of 0.20, and a power of 0.85, and 16 predictors were specified, resulting in a minimum required sample size of 121 participants. In our study, 124 patients who met the eligibility criteria were included.

- Sampling method: Convenience sampling.

- Data collection method: Eligible patients were interviewed using a pre-designed questionnaire.

2.3.3. Measurement Instruments

The survey instrument consisted of three sections:

- Section 1: General characteristics of the study participants, including age, sex, place of residence, educational level, employment status, marital status, living arrangement, duration of illness, chronic diseases, and complications.

- Section 2: The Participation Scale (P-Scale) was developed by an international team coordinated by Wim van Brakel in 2006 and demonstrated high reliability (Cronbach's α = 0.92) [11]. The Participation Scale-Short (Participation Scale Short 1.0) is a shortened version of the P-Scale, consisting of 13 items, with a Cronbach's α of 0.84 [12]. For each item, participants were first asked whether they experienced a problem in a particular area of participation or had equal opportunities compared with their peers. An item was scored 0 if the participant answered "yes" or "irrelevant." If the participant answered "sometimes" or "no", they were asked to indicate how big the problem was, which was scored as 1 (no problem), 2 (small), 3 (medium), or 5 (large). The total P-Scale Short score is calculated by summing the scores across all 13 items, resulting in a possible total score of 0 - 65. Higher scores indicate greater participation restriction. Based on the total score, participation restriction is classified into five categories: 0 - 6 (no significant restriction), 7 - 13 (mild restriction), 14 - 30 (moderate restriction), 31 - 50 (severe restriction), and 51 - 65 (extreme restriction) [13]. The P-Scale Short assesses social participation across various areas of daily and social life and is not specific to any particular disease. Therefore, it was used to assess social participation among patients with chronic diseases in the present study.

- Section 3: The Patient Health Questionnaire-9 (PHQ-9) was developed by Kroenke, Spitzer, and Williams (2001) and demonstrated high reliability, with a Cronbach's α of 0.89. The questionnaire consists of 9 items, with each item rated on a 4-point Likert scale as follows: 0 (not at all), 1 (several days), 2 (more than half the days), and 3 (nearly every day). The total score is classified into five categories: 0 - 4 (no depression), 5 - 9 (mild depression), 10 - 14 (moderate depression), 15 - 19 (moderately severe depression), and 20-27 (severe depression) [14].

- The P-Scale Short and PHQ-9 questionnaires were approved for use in our study. Both instruments were translated into Vietnamese following the WHO translation process. First, the original English versions were forward-translated into Vietnamese. The Vietnamese versions were then reviewed and back-translated into English by an independent bilingual translator to check their consistency with the original versions. Discrepancies were discussed and the Vietnamese versions were revised accordingly [15]. The instruments were pilot-tested on 30 participants with characteristics similar to those of the study sample. The Cronbach's α values for the P-Scale Short and PHQ-9 were 0.720 and 0.733, respectively. In the present study, the Cronbach's α values for the P-Scale Short and PHQ-9 were 0.714 and 0.702, respectively.

2.4. Statistical analysis

The data were cleaned and coded before being entered into SPSS version 20.0. Descriptive statistics were performed using means, standard deviations, frequencies, and percentages.

The total scores for social participation and depressive symptoms were assessed for normality using the Kolmogorov–Smirnov test. In this study, the P-Scale Short and PHQ-9 scores had p-values < 0.05, indicating that the data were not normally distributed. The normality of the residuals was assessed using histograms and normal P-P plots. In this study, the residuals for the P-Scale Short and PHQ-9 scores showed approximately symmetric, bell-shaped histograms, while the data points in the P-P plots were close to the diagonal line, indicating that the residuals were approximately normally distributed. Linearity and homoscedasticity were assessed using scatterplots of standardized predicted values against standardized residuals. The plots showed no clear systematic pattern or funnel-shaped distribution, supporting the assumptions of linearity and homoscedasticity. Potential influential observations were assessed using Cook's distance. The maximum Cook's distance was 0.120, suggesting that no individual observation had a substantial influence on the regression model.

The relationships between the variables were assessed using the Mann-Whitney U test, Kruskal-Wallis H test, and Spearman's correlation coefficient. Multiple linear regression analysis was performed to identify factors associated with PHQ-9 scores. Independent variables with $p < 0.05$ in the preliminary analyses and without significant multicollinearity with other independent variables were included in the multiple linear regression model. A statistically significant relationship was considered when the p-value < 0.05.

2.5. Ethical considerations

The study was approved by the Ethics Committee of the Institutional Review Board at Hue University of Medicine and Pharmacy, Hue University (Approval No. H2026/114, dated March 31, 2026).

3. RESULTS

3.1. General characteristics of the study participants

Table 1. General characteristics of the study participants (n = 124)

General Characteristics		Frequency (n)	Percentage (%)
Age	Mean ± SD = 57.94 ± 11.02		
Sex	Male	37	29.8
	Female	87	70.2
Place of residence	Urban	46	37.1
	Rural	78	62.9
Educational level	Illiterate	11	8.9
	Primary school	49	39.5
	Lower/upper secondary school	54	43.5
	College/university/ postgraduate	10	8.1
Employment status	Homemaker	26	21.0
	Employed	72	58.0
	Loss of working capacity	26	21.0
Marital status	Not married	22	17.7
	Married	102	82.3
Living arrangement	Living alone	3	2.4
	Living with family/relatives	121	97.6
Duration of illness	≤ 1 year	14	11.3
	> 1 - 3 years	32	25.8
	> 3 - 5 years	17	13.7
	> 5 years	61	49.2
Number of chronic conditions	1 condition	74	59.7
	≥ 2 conditions	50	40.3
Complications	No	115	92.7
	Yes	9	7.3

The mean age of the study participants was 57.94 ± 11.02 years; 70.2% were female, and 62.9% lived in rural areas. Participants with a lower or upper secondary education level accounted for the highest proportion (43.5%). Among the participants, 58.0% were employed, 82.3% were married, and 97.6% lived with family members or relatives. Nearly half (49.2%) had been living with their chronic disease(s) for more than 5 years. More than half (59.7%) of the participants had one chronic condition, and 92.7% of participants had no complications.

3.2. Social participation and depressive symptoms among patients with chronic diseases

Table 2. Social participation and depressive symptoms among patients with chronic diseases (n = 124)

	Frequency (n)	Percentage (%)
PHQ-9 (Mean ± SD = 6.06 ± 4.32)		
No depression	50	40.3
Mild depression	50	40.3
Moderate depression	20	16.2
Moderately severe depression	2	1.6
Severe depression	2	1.6
P-Scale Short (Mean ± SD = 12.60 ± 5.29)		
No restriction	9	7.3
Mild restriction	69	55.6
Moderate restriction	45	36.3
Severe restriction	1	0.8

The study participants had a mean PHQ-9 score of 6.06 ± 4.32, indicating mild depressive symptoms. Overall, 59.7% of participants had depressive symptoms, with mild symptoms accounting for the highest proportion (40.3%). The mean P-Scale Short score was 12.60 ± 5.29, indicating a mild level of restriction in social participation. Overall, 92.7% of participants experienced some degree of participation restriction, with mild restriction accounting for the highest proportion (55.6%).

3.3. The relationship between social participation and depressive symptoms among patients with chronic diseases

Table 3. Relationship between depressive symptoms and participants' characteristics (n = 124)

General Characteristics		PHQ-9	
		Mean ± SD	**p**
Sex	Male	5.14 ± 3.75	0.148*
	Female	6.45 ± 4.50	
Place of residence	Urban	5.39 ± 4.44	0.126*
	Rural	6.45 ± 4.23	
Educational level	Illiterate	6.82 ± 3.92	**0.001****
	Primary school	7.18 ± 4.34	
	Lower/upper secondary school	5.56 ± 4.25	
	College/university/postgraduate	2.40 ± 2.63	
Employment status	Homemaker	8.08 ± 5.18	**<0.001****
	Employed	4.71 ± 3.20	
	Loss of working capacity	7.77 ± 4.83	
Marital status	Not married	7.95 ± 5.36	**0.046***
	Married	5.65 ± 3.97	
Living arrangement	Living alone	12.33 ± 4.04	**0.023***
	Living with family/relatives	5.90 ± 4.22	

Duration of illness	≤ 1 year	3.43 ± 3.52	**0.013****
	> 1- 3 years	5.28 ± 3.79	
	> 3 - 5 years	7.47 ± 4.95	
	> 5 years	6.67 ± 4.33	
Number of chronic conditions	1 condition	4.50 ± 3.08	**< 0.001***
	≥ 2 conditions	8.36 ± 4.86	
Complications	No	5.77 ± 4.30	**0.002***
	Yes	9.67 ± 2.83	

**: Mann-Whitney U test*

***: Kruskal-Wallis H test*

There were statistically significant relationships between PHQ-9 scores and educational level (p = 0.001), employment status (p < 0.001), marital status (p = 0.046), living arrangement (p = 0.023), duration of illness (p = 0.013), number of chronic conditions (p < 0.001), and complications (p = 0.002) among patients with chronic diseases.

Table 4. Correlations between depressive symptoms, social participation, and age (n = 124)

	PHQ-9		
	Spearman's rho	**95% CI**	**p**
P-Scale Short	0.681	0.565 - 0.768	**< 0.001**
Age	0.317	0.164 - 0.464	**< 0.001**

There were statistically significant positive correlations between PHQ-9 scores and P-Scale Short scores (Spearman's rho = 0.681, 95% CI: 0.565 - 0.768, p < 0.001) and between PHQ-9 scores and age (Spearman's rho = 0.317, 95% CI: 0.164 - 0.464, p < 0.001) among patients with chronic diseases.

Table 5. Multivariable linear regression analysis of factors associated with depressive symptoms (n = 124)

General Characteristics	**PHQ-9**						
	B	**SE**	**β**	**95% CI**		**p**	**VIF**
Constant	4.935	3.280		-1.565	11.435	0.135	
Educational level (Illiterate*)							
Primary school	0.793	1.082	0.090	-1.352	2.937	0.465	3.901
Lower/upper secondary school	-0.124	1.074	-0.014	-2.252	2.004	0.908	3.952
College/university/postgraduate	-0.101	1.505	-0.006	-3.083	2.881	0.947	2.341
Employment status (Homemaker*)							
Employed	-1.249	0.739	-0.143	-2.713	0.215	0.094	1.853
Loss of working capacity	-0.283	0.955	-0.027	-2.177	1.610	0.768	2.109
Marital status (Not married*)							
Married	0.305	0.837	0.027	-1.355	1.965	0.716	1.427
Living arrangement (Living alone*)							
Living with family/relatives	-6.220	1.944	-0.222	-10.072	-2.367	**0.002**	1.244
Duration of illness (≤ 1 year*)							
> 1 - 3 years	-0.035	1.033	-0.004	-2.083	2.013	0.973	2.851
> 3 - 5 years	1.719	1.156	0.137	-0.573	4.010	0.140	2.205
> 5 years	0.973	0.950	0.113	-0.910	2.856	0.308	3.145

Number of chronic conditions (1 condition*)							
≥ 2 conditions	0.963	0.666	0.110	-0.356	2.283	0.151	1.487
Complications (No*)							
Yes	-1.375	1.290	-0.083	-3.932	1.182	0.289	1.562
P-Scale Short	0.474	0.072	0.580	0.332	0.616	**< 0.001**	1.980
Age	0.009	0.032	0.022	-0.055	0.072	0.786	1.716
R^2 = 0.578; Adjusted R^2 = 0.523; F = 10.644; p < 0.001							

**: reference value*

The multiple linear regression model was statistically significant (F = 10.644, p < 0.001) and explained 52.3% of the variance in PHQ-9 scores (adjusted R^2 = 0.523). Statistically significant factors associated with PHQ-9 scores in the multivariable linear regression model were living with family/relatives (B = -6.220, β = -0.222, 95% CI: -10.072 to -2.367, p = 0.002) and P-Scale Short scores (B = 0.474, β = 0.580, 95% CI: 0.332 to 0.616, p < 0.001).

4. DISCUSSION

4.1. Social participation and depressive symptoms among patients with chronic diseases

The study findings showed that patients with chronic diseases experienced a mild level of participation restriction, with a mean score of 12.60 ± 5.29. Overall, 92.7% of participants experienced some degree of participation restriction, with mild restriction accounting for the highest proportion (55.6%), while 37.1% experienced moderate to severe restriction. These findings suggest that although chronic diseases may affect patients' ability to participate in social activities, most patients in the study still maintained a certain level of engagement with their families and communities.

Our findings were lower than those reported by Komalasari et al. (2022), who found that patients with diabetes had a mean participation restriction score of 32.1 ± 6.3; among them, 43.6% experienced moderate restriction and 56.4% experienced severe restriction in social participation [5]. Similarly, our findings were lower than those reported by Espindula et al. (2024), in which individuals with spinal cord injury experienced severe restrictions in social participation; only 12% had mild restriction, while 73% experienced moderate or more severe restriction [16]. These differences may be explained by variations in the characteristics of the study populations, disease progression, and the extent of functional impairment across studies. Differences in health status may directly affect individuals' ability to perform daily activities, maintain social roles, and participate in community activities. In addition, variations in the study settings, healthcare conditions, and levels of family and community support may also contribute to differences in the degree of participation restriction observed across studies.

This study found that patients with chronic diseases experienced mild depressive symptoms, with a mean PHQ-9 score of 6.06 ± 4.32. Overall, 59.7% of participants had depressive symptoms, with mild symptoms accounting for the highest proportion (40.3%), while 19.4% had moderate to severe symptoms. These findings indicate that most patients had not developed depressive symptoms at moderate or severe levels. This finding could possibly be explained by patients' ability to adapt to their health conditions, as many may have maintained adherence to treatment and managed their symptoms effectively. In addition, support from family members and healthcare professionals may have facilitated patients' coping with chronic diseases and helped maintain their psychological well-being. These factors may therefore have played a role in mitigating the potential negative effects of chronic diseases on mental health.

Our findings were relatively consistent with those of Tran Viet Luc et al. (2023), who reported that 53.7% of patients with osteoporosis had depressive symptoms, as assessed using the PHQ-9 [8]. However, our findings were higher than those reported by Tran Nhu Minh Hang et al. (2020), who reported a 39% prevalence of depressive symptoms among patients with type 2 diabetes mellitus, as assessed using the PHQ-9 [7]. In contrast, our findings were lower than those reported by Vutova et al. (2021), who reported a mean depressive symptom score of 7.447 (95% CI: 6.366 - 8.529) among patients with chronic diseases; 64.9% of patients had depressive symptoms, including 50.9% with mild symptoms and 14% with severe symptoms [6]. Similarly, our findings were lower than those of Munisi et al. (2022), who reported

that 73.93% of patients had depressive symptoms, including 47.07% with mild symptoms and 26.86% with moderate to severe symptoms [17].

The differences in the prevalence of depressive symptoms between our study and previous studies may be explained by variations in the characteristics of the study populations, types of chronic diseases, disease duration, severity of complications, timing of data collection, and access to healthcare services and social support. Our study included patients with various types of chronic diseases, whereas some previous studies focused on patients with a specific chronic condition, which may have contributed to the differences in the observed prevalence of depressive symptoms.

4.2. The relationship between social participation and depressive symptoms among patients with chronic diseases

The study findings revealed a statistically significant positive relationship between participation restriction and depressive symptoms among patients with chronic diseases after adjustment for other variables in the multivariable linear regression model (B = 0.474, β = 0.580, 95% CI: 0.332 to 0.616, $p < 0.001$). This finding indicates that higher levels of participation restriction were related to higher levels of depressive symptoms. Notably, this relationship remained statistically significant after accounting for other factors included in the multivariable model, suggesting that participation restriction was independently related to depressive symptoms in this study population.

These findings are consistent with previous research indicating a close relationship between social participation and mental health. Sun et al. (2026) reported a bidirectional longitudinal relationship between social participation and depressive symptoms among patients with stroke [9], while Fang et al. (2026) found that greater engagement in social activities was associated with a lower risk of depression [10]. Although these studies differed from the present study in terms of population and study design, their findings support the relevance of social participation to depressive symptoms. The present study extends this evidence by examining participation restriction among patients with chronic diseases more broadly, rather than focusing on a single disease group.

In the present study, participation restriction and several general characteristics showed significant relationships with depressive symptoms in the preliminary analyses, including age, education, employment status, marital status, living arrangement, illness duration, number of chronic conditions, and complications. However, after adjustment in the multivariable model, participation restriction and living arrangement remained statistically significant, whereas the other variables did not. This difference between the preliminary and multivariable analyses indicates that the relationship between depressive symptoms and some general characteristics may be influenced by other factors considered in the model. Therefore, the findings support considering multiple patient characteristics when examining depressive symptoms rather than interpreting individual factors in isolation.

Among the variables retained in the multivariable model, participation restriction showed a larger standardized regression coefficient (β = 0.580) than living arrangement (β = -0.222), indicating a relatively stronger statistical relationship with depressive symptom scores in this model. This finding further highlights the relevance of participation restriction in relation to depressive symptoms among patients with chronic diseases.

4.3. Limitations and Future Directions

This study has several limitations. Firstly, the cross-sectional design only allows for the identification of a relationship between social participation and depressive symptoms and does not establish a causal relationship between the two. Secondly, the study surveyed a relatively small sample from a single hospital, which limits the generalizability of the findings. Finally, the data were collected using self-reported questionnaires and may therefore be subject to recall bias and response bias.

To clarify the causal relationship between social participation and depressive symptoms among patients with chronic diseases, longitudinal or interventional studies should be conducted. In addition, future studies should be conducted across multiple hospitals with larger sample sizes to enhance the representativeness and generalizability of the findings. Furthermore, the effectiveness of interventions aimed at promoting social participation should be evaluated to contribute to improving the mental health and quality of life of patients with chronic diseases.

5. CONCLUSION

After assessing social participation and depressive symptoms among patients with chronic diseases, this study found that participation restriction and depressive symptoms were common

in this population. Importantly, a statistically significant positive relationship was found between participation restriction and depressive symptoms after adjustment for other relevant variables. These findings highlight the importance of considering participation restriction when assessing depressive symptoms and planning holistic nursing care for patients with chronic diseases.

RECOMMENDATIONS

Hospitals should integrate routine screening for depressive symptoms and participation restriction into the management and follow-up of patients with chronic diseases to facilitate the early identification of individuals at risk and provide appropriate support.

Healthcare professionals, particularly nurses, should strengthen counseling and health education and encourage patients to maintain social activities appropriate to their health conditions. In addition, support from families and communities should be mobilized to help improve patients' quality of life and mental health.

Conflict of Interest Statement: The authors declare that there are no conflicts of interest among the authors of this study or with other authors.

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