

Sociodemographic and behavioral correlates of psychological distress among Korean adults

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Abstract

Background: Psychological distress is a significant public health concern among older adults, as it is closely linked to functional decline, chronic disease burden, and diminished quality of life. Understanding the factors that influence psychological distress in the elderly is crucial for developing effective interventions. Methods: This cross-sectional study analyzed data from older adults aged 65 years and older using a nationally representative dataset. Psychological distress was assessed using a composite index derived from standardized anxiety and depression scores. Descriptive statistics, Pearson correlation analysis, and hierarchical multiple regression were conducted to identify factors associated with psychological distress. Results: A total of 1,667 older adults were included in the analysis. Psychological distress was significantly correlated with perceived stress

1. Introduction

As the aging population rapidly increases, the mental health of the elderly has become a critical public health concern. In particular, psychological distress—which encompasses anxiety and depression—is closely associated with a decline in quality of life, reduced physical functioning, and the exacerbation of chronic diseases among older adults. This mental distress is recognized as a significant factor affecting overall health, extending beyond a mere psychological issue [1]. Previous studies have primarily focused on analyzing individual indicators such as depression or anxiety, while research employing the broader concept of psychological distress, which comprehensively reflects the mental health of the elderly, remains relatively limited. Furthermore, integrated analyses that simultaneously consider stress, functional status, and quality of life—key factors influencing mental health—have been scarce [2].

Psychological distress in the elderly is not limited to an individual's mental state but is closely linked to daily functional abilities and health-related quality of life. Specifically, perceived stress levels, health literacy, functional independence, and quality of life may interact and collectively influence mental health. Therefore,

research that comprehensively examines these factors is essential.

2. Methods

2.1 Study Subjects

This cross-sectional study utilized data from the National Health and Nutrition Examination Survey, focusing exclusively on elderly individuals aged 65 and older. Participants younger than 65 were excluded, resulting in a final sample of 1,951 subjects.

2.2 Study Purpose

The purpose of this study is to assess the level of psychological distress among elderly individuals aged 65 and older and to identify the factors influencing it. Specifically, the study aims to analyze the effects of perceived stress levels, health information comprehension ability, functional status of the elderly, and health-related quality of life (measured by EQ-5D) on psychological distress.

3. Results

3.1 General Characteristics of Study Subjects Aged 65 and Older

The average age of the study participants was 73.09 ± 5.13 years, with females comprising 58.4% and males

41.6%. Regarding obesity distribution, the largest group was obese individuals at 36.3%, followed by those with normal weight at 34.1%, pre-obese at 26.1%, and underweight at 3.4%. Household size was most commonly two-person households (55.0%), with one-person households also representing a substantial proportion (27.2%). Marital status indicated that 66.8% were living with a spouse, while 24.9% were widowed. The perceived level of stress was highest for “feeling a little” at 51.3%, followed by “hardly feeling any” at 34.2%. Lifetime smoking experience was reported as “never” by 65.6%, and 77.7% had consumed alcohol at some point. The proportion of participants engaging in high-intensity physical activity was very low at 0.5%, and moderate-intensity physical activity was reported by only 4.1%. Among physician-diagnosed conditions, hypertension was most prevalent at 54.7%, followed by diabetes at 24.8%, stroke at 5.1%, myocardial infarction or angina at 7.9%, and cancer at 11.5%. Health-related quality of life (EQ-5D) averaged 0.92 ± 0.11 , indicating a relatively high level. The GAD-7 score averaged 2.18 ± 3.38 , and the PHQ-9 score averaged 2.16 ± 3.60 . The psychological distress index, derived by integrating these two measures, showed a standardized distribution with a mean of 0.00 ± 1.78 .

3.2 Correlations Between Psychological Distress Index and Variables

The psychological distress index demonstrated a moderate negative correlation with the usual perceived level of stress ($r = -0.431$, $p < 0.001$) and a significant negative correlation with health-related quality of life (EQ-5D) ($r = -0.399$, $p < 0.001$). It also exhibited a significant negative correlation with elderly functional status scores ($r = -0.277$, $p < 0.001$). Conversely, a weak positive correlation was observed with gender ($r = 0.130$, $p < 0.001$). The correlation with age was not significant ($r = -0.003$, $p = 0.450$).

3.3 Factors Affecting the Psychological Distress Index

Regression analysis results for factors affecting the psychological distress index indicated that Model 1, which included gender and age, was significant ($F = 14.385$, $p < 0.001$) but explained only 1.7% of the variance ($R^2 =$

0.017). Gender was a significant predictor of the psychological distress index ($\beta = 0.130$, $p < 0.001$), whereas age was not significant. Model 2, which incorporated usual perceived stress level, health information comprehension ability, elderly functional status score, and health-related quality of life (EQ-5D), was also statistically significant ($F = 108.342$, $p < 0.001$) and demonstrated a substantial increase in explanatory power to 28.1% ($R^2 = 0.281$). In Model 2, significant predictors of the psychological distress index included usual perceived stress level ($\beta = -0.348$, $p < 0.001$), health-related quality of life (EQ-5D) ($\beta = -0.232$, $p < 0.001$), and elderly functional status score ($\beta = -0.132$, $p < 0.001$). Health information comprehension ability did not have a significant effect ($p = 0.721$). Gender and age were also not significant in the final model.

In summary, psychological distress in the elderly increases with higher stress levels and decreases with improved quality of life and functional status.

[Table 1] Multiple regression analysis

Variables	Model 1 β	Model 2 β
Age	-0.002	-0.043
Sex	0.130***	0.018
Stress recognition	-	-0.348***
Health Information Literacy	-	0.008
Elderly Life Functioning	-	-0.132***
EQ-5D	-	-0.232***
R^2	0.017	0.281
F	14.385***	108.342***

References

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