FACTORS ASSOCIATED WITH GOOD MENTAL HEALTH AMONG US ADULTS WITH ARTHRITIS

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Introduction

- Autoimmune conditions such as arthritis can contribute to the development of mental health issues.[1]
- The prevalence of mental health issues is higher among people with arthritis compared to the general United States (US) population.[2]
- Little is known about characteristics associated with mental health status among US adults with arthritis.

Objectives

- To assess the association between relevant characteristics (identified in the literature) and mental health status among US adults with arthritis.

Methods

- This retrospective cross sectional study used 2019 Medical Expenditures Panel Survey (MEPS) data.[3]
- Eligible individuals were adults aged >17 years with arthritis.
- Hierarchical logistic regression models were used to model the associations between relevant characteristics and good mental health status.
- Characteristics were categorized into one of three groups.
  - Predisposing factors: age, gender, race, ethnicity, census region.
  - Enabling factors: education, employment, marital, poverty status.
  - Need factors: assistive devices, difficulty walking/climbing stairs, limitation in physical functioning, joint pain, chronic conditions.
- The a priori alpha level was 0.05.
- Analyses accounted for the complex survey design and were weighted to produce national estimates.

Results

- Among 28,512 individuals in the dataset, 4,984 met inclusion criteria.
- Of these, 4,181 had good mental health (85.5%, 95% confidence interval = 84.3%, 86.7%).

Table 1. Demographic characteristics of United States adults with arthritis aged >17 years

Characteristics	Good Mental Health N = 51,394,600 weighted percent (95% CI)	Poor Mental Health N = 8,711,949 weighted percent (95% CI)	p-value
Predisposing factors:			
Age: >65	51.7 (49.4, 54.0)	41.2 (37.4, 45.1)	<0.0001
Gender: Female	60.2 (58.5, 61.9)	64.8 (60.7, 68.8)	0.0390
Race: White	81.9 (80.0, 83.7)	78.2 (74.2, 82.2)	0.0474
Ethnicity: Hispanic	8.0 (6.9, 9.2)	13.9 (10.1, 17.6)	<0.0001
Census region: South	38.6 (35.7, 41.5)	41.7 (37.2, 46.3)	0.5386
Enabling factors:			
Education status: High school diploma or equivalent	49.5 (47.4, 51.6)	52.0 (47.7, 56.3)	<0.0001
Employment status: Employed	45.3 (43.2, 47.5)	27.3 (23.6, 31.1)	<0.0001
Marital status: Married	56.8 (54.8, 58.7)	40.2 (35.9, 44.6)	<0.0001
Poverty status: Poor/near poor	26.8 (25.0, 28.5)	51.3 (46.7, 56.0)	<0.0001
Need factors:			
Use of assistive devices	17.3 (15.9, 18.8)	38.3 (34.6, 42.0)	<0.0001
Difficulty walking/climbing stairs	24.7 (23.0, 26.3)	50.6 (46.0, 55.1)	<0.0001
≥5 chronic conditions	16.4 (15.1, 17.6)	31.5 (28.1, 34.9)	<0.0001
Limitation in physical functioning	34.0 (32.0, 36.0)	62.2 (58.1, 66.2)	<0.0001
Joint pain	59.3 (54.2, 64.5)	71.2 (57.5, 85.0)	0.1358

Statistics analysis of 4,984 United States adults alive in 2019 with arthritis diagnosis. Perceived mental health status was determined based on responses to a question that asked people to comment on mental health status with response options: excellent, very good, good, fair, poor. For the purpose of the study, responses of excellent, very good or good were categorized as good mental health and fair or poor were categorized as poor mental health. Chi-square tests were used to assess differences between groups.

Table 2. Factors associated with good mental health among United states adults with arthritis aged >17 years

Variables	Adjusted Odds Ratio (95% Confidence Interval)
Age (18-64 vs ≥65)	0.29 (0.12, 0.71)
Region (Midwest vs West)	5.17 (1.63, 16.46)
Education status (No degree vs Higher than high school)	0.34 (0.12, 0.92)
Education status (High school vs Higher than high school)	0.40 (0.18, 0.86)

Limitations

- This retrospective study used secondary data collected for purposes other than this study, thus this study can only determine a statistical association rather than a temporal relationship between the variables.
- Data were self-reported by MEPS participants five times over a two-year period, thus there is a possibility of recall bias.
- However, strengths of the study include the nationally representative sample of civilian, non-institutionalized US residents which offers good external validity of the findings.

Conclusions

- The findings from this study revealed an association between three characteristics (age, census region, and education status) and good mental health among US adults with arthritis.
- Such characteristics may be targeted to initiate interventions to improve mental health among this population.

References

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