Age Differences in Mental Health During COVID-19: The Role of Pandemic Knowledge and Its Sources

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INTRODUCTION

COVID-19 has changed many aspects of life and related mental health concerns are rising (Brooks et al., 2020). Some age groups may be more resilient to or more at risk for mental health problems (UN, 2020). As the pandemic continues, a lot of facts have changed and myths are prevalent although several organizations including the CDC and media sources provide COVID-19 information (CDC, 2020). People’s knowledge about COVID-19 may exacerbate (Zhang, 2014) or improve mental health outcomes (Zhong, 2021). Further, the sources where people get COVID-19 related knowledge may influence their knowledge level and evaluations of the pandemic (Selinger et al., 2017). It is not crystal clear what the mental health status is for different age groups during COVID-19 and how mental health outcomes are affected by COVID-19 knowledge and sources in different age groups.

RESEARCH QUESTIONS

- What are the mental health outcomes (depression/anxiety and PTSD symptoms) for different age groups?
- What are the associations among mental health outcomes, COVID-19 knowledge, and information sources?
- How are mental health outcomes related to COVID-19 knowledge level and types of information sources?
- How are different types of information sources related to the level of COVID-19 knowledge?
- Do the associations vary across different age groups?

METHOD

Data Source and Participants: US nationwide online survey data from DiClemente’s 2020 study of Knowledge, Attitudes and Practices Related to COVID-19. Responses from 6,602 participants were collected in late March 2020. Current study participants include 5,046 adults, excluding 1,516 without data on mental health outcomes, non-U.S. citizens, or minors.

Measures: Anxiety/depression: Patient Health Questionnaire (PHQ-4, Lowe, Wahl, & Rose, 2010); PTSD: Impact of Event Scale (IES; Hosey et al. 2019; Weiss & Marmar, 1997); a survey of COVID-19 knowledge, COVID-19 prevention knowledge; a survey of various sources of information used and a demographic survey.

Analysis: Hierarchical regression analysis was done to predict depression/anxiety and PTSD symptoms, with: (1) Age and other demographic factors; (2) COVID-19 general knowledge and COVID-19 prevention knowledge; (3) Types of information sources used to obtain COVID-19 knowledge, including online and interpersonal sources. Hierarchical regression analysis was done to predict COVID-19 knowledge, with information sources and covariates. (SPSS version 26 was used for statistical analysis).

RESULTS

Age Differences in Mental Health Symptoms

- Older age groups had higher depression/anxiety (PHQ-4) and PTSD symptoms (B=0.13, p<0.001). Using more sources was associated with more mental health symptoms (B=0.07, p<0.001).
- General knowledge was associated with more mental health symptoms (B=15, p<0.001). The more information sources were used, the more mental health symptoms (B=0.07, p<0.001).

The Role of Knowledge and Information Sources in Mental Health Symptoms:

- The more knowledge, the more mental health symptoms (B=24, p<0.001).
- The more information sources used, the more mental health symptoms (B=0.07, p<0.001). One exception: fewer sources of interpersonal (B=-0.05, p<0.05).

Age Differences in Source Use for COVID-19 Information

- U.S. adults used diverse information sources (e.g., traditional broadcasting, online media, and interpersonal sources).
- The older the age group, the fewer number of information sources were used (B=0.08, p<0.001).
- Age groups, # of total sources used (B=0.07, p<0.001).
- Age groups, # of online media sources used (B=0.08, p<0.001).
- Age groups, # of interpersonal sources used (B=0.11, p<0.001).

Age Differences in COVID-19 Knowledge

- Age groups, # of sources used (B=0.04, p<0.01).

The Role of Information Sources in COVID-19 Knowledge

- The more sources are used, the higher the level of COVID-19 knowledge (B=0.11, p<0.001).
- General knowledge about COVID-19 was not associated with any information sources while protective knowledge was, meaning people used more sources for protective information rather than general characteristics of COVID-19.

Information Source X Age, 2-Way Interactions on Mental Health Outcomes

- Age groups were examined if they moderated the relationship between COVID-19 knowledge and mental health outcomes.
- Interpersonal source use and PTSD gets stronger for older adults.
- Interpersonal source X age (β=10, PTSD symptoms (B=0.08, p<0.05).
- The relationship between interpersonal source use and PTSD gets stronger for older adults.

DISCUSSION

- Summary of Findings: The use of more information sources and higher knowledge levels were associated with more mental health symptoms. Using online media sources predicted more symptoms while interpersonal, less. Older age groups had lower mental health symptoms, used fewer information sources and had lower levels of COVID-19 protective knowledge.
- Although interpersonal source use alleviated mental health symptoms in general, there were interactions with age: older adults experienced more depression and PTSD symptoms from using more interpersonal sources.
- Conclusion: Results show that there is a need to support mental health for younger age groups. There are multiple pathways leading to mental outcomes during the COVID-19 pandemic. Knowledge levels and source use contributes to the pathways: older adults may use fewer sources for COVID-19 information, leading to less knowledge, which resulted in fewer mental health symptoms. Mental health support may adopt different approaches and paths for different groups.
- Implications: Mental health professionals need to be aware of the possible increase in depressive and PTSD symptoms due to the pandemic especially for younger adults. More mental health support and resources should be aimed towards this group, including easier access to counseling and therapy. Professionals must also consider various risk factors for mental health issues including demographic characteristics, information sources, and knowledge levels.

BIBLIOGRAPHY


Nursing Outlook, 69(1), 13-21.


