

Title

The Association Between Social Isolation and Mental Health Outcomes Among Undergraduate and Graduate Students: Lessons from U.S. Students

Research Overview

University life is commonly perceived as a time for social engagement, yet many students experience loneliness, impacting their emotions, coping strategies, and academic performance. This study examines the relationship between social isolation and mental health outcomes among United States undergraduate and graduate students, highlighting patterns, risk factors, and institutional implications.

Purpose of Study

Social isolation is a growing concern among university students, exacerbated by changes in academic environments and recent disruptions such as the COVID-19 pandemic. Higher education institutions are seeing increased levels of depression, anxiety, stress, and suicidal thoughts among students. However, the link between social isolation and mental health outcomes is still not fully understood despite extensive research.

This systematic review aims to explore the relationship between social isolation and mental health outcomes among college students. It will identify common mental health issues associated with social isolation, compare distress patterns between undergraduates and graduates, and examine factors that may worsen or alleviate these effects.

This review fills a gap in the literature by providing a comprehensive understanding of how social isolation impacts students' well-being and suggests targeted interventions in higher education.

Research Methods

This study employed a systematic review design following the PRISMA 2020 framework and was registered in PROSPERO (CRD420251179110). A systematic search was conducted across four databases: PubMed, Scopus, CINAHL, and Embase. These were used to identify peer-reviewed quantitative studies published in English between January 2015 and October 2025.

This study focused on students in the United States (U.S.) for several reasons. The U.S. higher education system is among the largest and most diverse globally, encompassing a wide range of institutions and student populations across racial, ethnic, and socioeconomic groups. Additionally, much empirical research on social isolation and student mental health has been conducted in the U.S., enabling stronger comparison and synthesis. Recent societal shifts, particularly the COVID-19 pandemic and transition to remote learning, are also well documented in U.S. contexts, providing a robust basis for examining how social isolation affects student mental health and informing relevant policy and practice.

The included studies examined undergraduate and/or graduate students in the U.S. higher education institutions. They explored social isolation as a factor along with at least one mental health outcome. The studies had to utilize validated psychological assessment tools such as the UCLA Loneliness Scale, PHQ-9, and GAD-7. Titles and abstracts were screened, followed by a full-text review based on predefined inclusion and exclusion criteria. Data extraction included study characteristics, sample size, measures of social isolation, mental health outcomes, and key findings. The methodological quality was assessed using the National Heart, Lung, and Blood Institute (NHLBI) Quality Assessment Tool for Observational Cohort and Cross-Sectional Studies. Of the 923 records identified, ten studies met the final inclusion criteria (N = 14,547 students). Due to heterogeneity in measurement tools and study designs, a narrative synthesis approach was used to analyze and integrate findings.

Results and Discussion

Social isolation was consistently associated with poorer mental health outcomes, particularly higher levels of depression and anxiety. It was also linked to burnout, traumatic stress, mood disturbances, and suicidal ideation, indicating that its effects extend beyond common psychological conditions.

A clear difference emerged between academic levels. Graduate students showed higher levels of psychological distress than undergraduates. This appears to be related to structural pressures such as research demands, financial strain, and the often isolating nature of graduate study. In contrast, undergraduates were more affected by issues of peer belonging and campus integration, suggesting that the academic environment shapes isolation.

Some groups were more affected than others. Female students and those from racial or sexual minority backgrounds experienced greater psychological strain in relation to isolation. The COVID-19 pandemic further intensified these patterns. The shift to remote learning reduced everyday social interactions and increased feelings of disconnection, which in turn contributed to worsening mental health.

Importantly, certain factors appeared to reduce the impact of isolation. Students who reported higher levels of resilience, effective coping strategies, and strong social support were less likely to experience severe mental health difficulties. This points to the importance of strengthening these protective factors within university settings.

Overall, the findings suggest that addressing social isolation requires more than individual-level support. Universities need to pay closer attention to how their structures and environments shape students' social experiences. This includes early identification of mental health concerns and creating spaces that support informal social interaction. The situation among graduate students is especially concerning and warrants targeted attention. Although most of the evidence is based on cross-sectional studies and does not establish causality, the consistency of the findings makes it clear that social connection is closely tied to both well-being and academic functioning.

Keywords

college students; depression; higher education; mental health; social isolation