

Disability and Loneliness: Comparing Feelings of Loneliness Between Disabled and Non-Disabled College Students

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Abstract

This study explores the relationship between disability status and feelings of loneliness among college students. The few studies that have examined this relationship have found that disabled individuals tend to experience more loneliness than non-disabled individuals. Past studies have used data sets of under 20,000 participants. We seek to fill a gap in the literature by exploring the connection between disability and loneliness with a large-scale data set (N = 80,208). Using a secondary analysis of the Healthy Minds 2021-2022 survey dataset, our results found that there is a statistically significant relationship between a student's disability status and their feelings of loneliness. Disabled students report higher feelings of loneliness on average when compared to non-disabled students. These results show that more research needs to be done on the challenges faced by disabled students that may have caused this difference. While our study supports past findings, the low practical significance suggests that the differences in means may not have any real-world significance, which may be indicative of another covariate that has more impact on loneliness than disability status alone.

1. Introduction

Loneliness has been shown to have a negative impact on mental health and well-being (Hawkley & Cacioppo, 2010). According to the CDC, loneliness is a prevalent phenomenon that is correlated with other indicators of poor mental health, like stress and depression, as well as those who are members of sexual and gender minorities. Loneliness in disabled college students is an important topic as it could be an indicator of broader issues relating to accessibility and inclusivity measures in higher education institutions. Addressing this issue may provide further knowledge on ways campus environments can be improved to better the experience of both disabled and nondisabled students. Past datasets have ranged from 78 (Kong et al., 2020) to 17,723 (Emerson et al., 2020) participants. Using the

dataset from the Healthy Minds 2021-2022 survey, which gathered data from over 90,000 students. We intend to provide a more comprehensive comparison and analysis than previous studies to answer the question: Is there a difference in feelings of loneliness between college students with disabilities and college students without disabilities (Healthy Minds Network, 2021)? Based on past studies, which have found that disabled individuals tend to feel lonelier than non-disabled individuals, we hypothesize that disabled college students will report higher feelings of loneliness than non-disabled college students. Our null hypothesis is that there is no difference in feelings of loneliness between disabled and non-disabled college students.

Within the last decade, many studies have been done on the impact of loneliness in various populations of interest. Among disabled

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individuals, there are few studies; however, the ones that do exist have found that they are more likely to report feelings of loneliness than *non-disabled individuals*. Particularly, a study done on the effects of disability on loneliness, social support, and mental wellbeing found that feelings of loneliness were highest in individuals with disabilities, as well as those in “disadvantaged living circumstances,” which they describe as individuals who are low or no-income, living alone, experiencing housing instability, or have little access to environmental assets (Emerson et al., 2020). Their findings may be an indicator of an indirect relationship between disability status and loneliness, with the inclusion of things like low socioeconomic status or unsatisfactory living conditions/arrangements. While another study has been done on loneliness in disabled college students compared to nondisabled students, its scope was quite limited as it only used data from one university (Durham et al., 2024). They found that college students with disabilities showed higher loneliness scores than those without disabilities, indicating a strong relationship between disability status and feelings of loneliness.

2. Methods

2.1 Sample

Participant data came from the Health Minds Study Survey 2021-2022. Data was collected from graduate and undergraduate students over the age of 18 (N = 91,629). The genders included were non-conforming (N = 561), non-binary (N = 3,183), men (N = 24,641), women (N = 62,140), transmen (N = 561), and transwomen (N = 188). The races included American Indian (N = 287), Arab/Middle Eastern (N = 1,152), Hawaiian/Pacific Islander (N = 254), Asian (N = 11,116), Black (N = 5,306), Hispanic/Latino (N = 10,359), White (N = 61,516), and Other (N = 1,234). There were 55,572 undergrads in total. The ages ranged from 18 to 51 years old, with an average age of 23. For this study,

the sample only included those who disclosed their disability status (N = 80,208).

2.2 Instruments

2.2.a Loneliness

In the HMS data set, two variables fall under loneliness: *lonesc* and *lonely*. For this study, we will only be using *lonesc*, which are the loneliness scores from UCLA’s self-report, 3-item loneliness scale ($\alpha = 0.80$). Cronbach’s Alpha (α) measures the reliability of survey items. Surveys that score between 0.7 and 0.95 are considered a reliable measure. For the loneliness scale, the score combines the ratings of three questions. The minimum score possible is 3, representing little to no feelings of loneliness, and the maximum is 9, representing high or frequent feelings of loneliness. The three questions are: 1) How often do you feel that you lack companionship? 2) How often do you feel left out? 3) How often do you isolate from others? The possible answers are *Hardly ever* (1), *Some of the time* (2), *Often* (3). HMS classifies scores of 3-5 as not lonely and 6-9 as lonely.

2.2.b Disability Status

To determine whether a participant was considered disabled, a one-item measure developed by the HMS team was used (Healthy Minds Study, 2021). The question was: Are you registered with the office for disability services on this campus, as having a documented and diagnosed disability? The responses were no (0), yes (1), I have a diagnosed disability but have not registered with the office of disability services (2), and prefer not to say (3). For the purposes of this study, values 1 and 2 were combined, and those who answered 3 were not included.

2.3 Procedures

The data used came from the Healthy Minds Study 2021-2022. Data collection procedures and other information can be found on the Healthy Minds Network website (*Healthy Minds Study – Healthy*

Minds Network, n.d.). Four thousand students from each school were invited through email to take part in the survey. All students who chose to complete the survey were enrolled in a drawing for one of ten \$100 or one of two \$500 Amazon gift cards (*Healthy Minds Study – Healthy Minds Network*, n.d.).

For this study, the Disability Status and Loneliness variables from the survey data were used. Those who chose “prefer not to say” in response to their disability status were removed from the sample.

2.4 Analysis

The statistical approach used is an Independent Samples T-Test. An Independent Samples T-Test compares the means of two groups to draw conclusions from them. The two groups being compared are students who are disabled (1) and those who are not (0). The variables being measured are participants’ loneliness scores. The Loneliness variable is based on a Likert scale because it includes several scales; however, it will be treated as a continuous variable rather than categorical.

3. Results

In order to determine if there are any differences in loneliness based on disability status, we used an independent samples t-test. Students who were not disabled reported, on average (Mean = 5.721, Standard Deviation = 1.926), lower loneliness scores than disabled students (M = 6.483, SD = 1.896). The results showed a statistically significant difference between the two groups ($t = -44,102$, $p < .001$) with a small effect size ($d = 0.397$, $SE = 0.009$). Our findings suggest that, on average, disabled students report higher feelings of loneliness than students who are not disabled.

3.1 Independent Samples T-Test

Independent Samples T-Test

	t	df	p	Mean Difference	SE Difference	Cohen's d	SE Cohen's d
lonesc	-44.102	80206	< .001	-0.763	0.017	-0.397	0.009

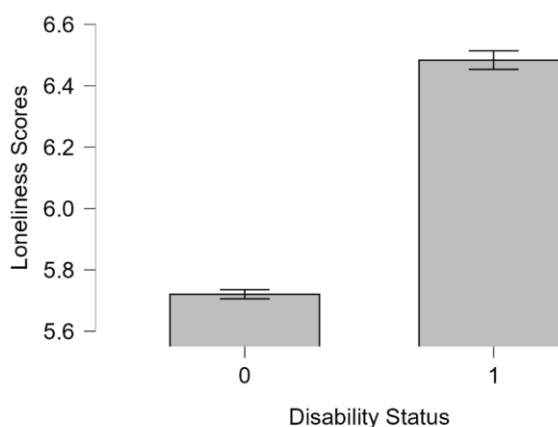
Note. For all tests, the alternative hypothesis specifies that group 0 is less than group 1.

Note. Student's t-test.

3.2 Descriptives

Group Descriptives

	Group	N	Mean	SD	SE	Coefficient of variation
lonesc	0	64991	5.721	1.926	0.008	0.337
	1	15217	6.483	1.896	0.015	0.292



4. Conclusion

We sought to find whether there is a difference between feelings of loneliness for disabled and non-disabled students. Based on findings from previous research, we hypothesized that disabled students would report higher feelings of loneliness than non-disabled students. Using a secondary analysis of the Healthy Minds 2021-2022 survey dataset, we ran an independent samples t-test. Our analysis found that there is a statistically significant difference between feelings of loneliness for disabled and non-disabled students, with disabled students reporting higher feelings of loneliness on average. From our results, we reject the null hypothesis.

5. Discussion

The measure used to assess student loneliness was the UCLA 3-item loneliness scale. Based on the HMS interpretation of the UCLA 3-item loneliness scale, scores between 3–5 are considered not lonely, and scores 6–9 are lonely. On average, disabled students are lonely ($M = 6.483$) while non-disabled students fall just below the loneliness threshold ($M = 5.721$). We also found that, while statistically significant, the results had a low practical effect ($d = 0.397$, $SE = 0.009$), as the Cohen's d value was under 0.5. Cohen's d measures the effect size of the difference between two means. The low value indicates that there is not a large difference between the means, suggesting that, while there is a difference between the groups, the real-world implications may be limited. Despite this, as mentioned previously, it is important to note that the average loneliness score for disabled students exceeded the 6-point minimum required by the 3-item loneliness scale. The one-point difference in average loneliness scores between disabled and non-disabled students is noteworthy.

Previous research has shown that disabled individuals experience higher loneliness on average (Durham et al., 2024). Though the research pool is limited, past studies also seem to show similar results between physical and mental disabilities in terms of loneliness (Kong et al., 2020; Nagata et al., 2023). Based on past findings, this has less to do with disability itself and more to do with the context in which it exists (Emerson et al., 2020). Lack of accessibility, unwelcoming environments, inability to obtain employment, and interpersonal relationships can impact one's feelings of loneliness (Emerson et al., 2020; Kong et al., 2020). Our study supports past findings; however, the low practical significance may be indicative of another covariate that has more impact on loneliness than disability status alone.

6. Limitations

There were several limitations with this study. We used a secondary analysis on data that was not originally intended to look specifically at disability status and loneliness. The 3-item loneliness scale ($\alpha = 0.80$) used in the HMS is a simplified version of another 20-item scale also developed by UCLA ($\alpha = 0.93$) (Gosling et al., 2024). Though they both have high reliability, for a more thorough analysis, it would have been more beneficial to use the 20-item scale. Additionally, as this is an observational study, we can only look at correlations between variables, not causation.

7. Future Directions

As mentioned previously, our findings suggest that further research should examine the role of covariates such as race, gender, socioeconomic status, social environment, accessibility on campus, and access to disability resources on feelings of loneliness. Furthermore, future research could also be done on the differences in loneliness between different disabilities. As this study was cross-sectional, a longitudinal study tracking changes in loneliness for disabled students over time is also recommended.

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