



## Evaluating mental health literacy amongst US college students: a cross sectional study

Paul Gorczynski & Wendy Sims-Schouten

To cite this article: Paul Gorczynski & Wendy Sims-Schouten (2022): Evaluating mental health literacy amongst US college students: a cross sectional study, Journal of American College Health, DOI: [10.1080/07448481.2022.2063690](https://doi.org/10.1080/07448481.2022.2063690)

To link to this article: <https://doi.org/10.1080/07448481.2022.2063690>



© 2022 The Author(s). Published with license by Taylor & Francis Group, LLC



Published online: 26 Apr 2022.



Submit your article to this journal [↗](#)



Article views: 902



View related articles [↗](#)



View Crossmark data [↗](#)

## Evaluating mental health literacy amongst US college students: a cross sectional study

Paul Gorczynski, PhD<sup>a</sup>  and Wendy Sims-Schouten, PhD<sup>b</sup>

<sup>a</sup>University of Greenwich, London, UK; <sup>b</sup>University College London, London, UK

### ABSTRACT

**Objective:** This study examined levels of mental health literacy amongst US university students, as well as relationships between mental health literacy, help-seeking behaviors, and mental health outcomes. **Participants:** Three hundred and twenty-six (326) US university students participated in this study online. **Methods:** Participants filled out questionnaires that assessed their mental health literacy, intentions to seek support, psychological distress, wellbeing, and self-compassion. **Results:** The mean mental health literacy score was 123.96 ( $SD=16.01$ ). Women scored significantly higher than men ( $p<.01$ ) on mental health literacy. Individuals who had a previous mental disorder diagnosis had significantly higher scores than those with no previous diagnosis ( $p<.01$ ). A significant positive relationship was found between mental health literacy and self-compassion ( $p<.01$ ). **Conclusions:** Our research highlights significant differences between women and men in relation to mental health literacy, psychological distress, and help-seeking behavior. There is a need to design culturally competent interventions that involve diverse students.

### ARTICLE HISTORY

Received 16 April 2021  
Revised 15 February 2022  
Accepted 3 April 2022

### KEYWORDS

Gender; health education; mental health

### Background

Current research shows that university students in the United States experience a rise in mental health symptoms and disorders, especially with respect to depressive and anxiety symptoms and sleep disturbance, exacerbated by the current Covid-19 pandemic.<sup>1,2</sup> In comparison to other countries, US university students experience some of the highest rates of prevalence for depression, anxiety, and sleep disturbance.<sup>3</sup> The consequences of poor mental health in this population have been severe, ranging from poor academic attainment and academic dissatisfaction, to higher rates of dropout and lower employability after completion of studies.<sup>1,4,5</sup>

Universities have tried to raise awareness of mental health and in a response to increased prevalence of poor mental health, have, where possible, expanded mental health professional services and resources to students.<sup>6-9</sup> Researchers have suggested that targeted strategies, perhaps those rooted in mental health literacy, are needed to provide students with information about mental health symptoms and disorders, to facilitate self-compassion and self-care, to address the negative perceptions and attitudes toward poor mental health, and to provide clear pathways about how to access mental services when needed.<sup>6-8</sup> Results from a longitudinal study of mental health service utilization of US university students have shown a significant increase between 2007 and 2017.<sup>10</sup> Researchers state that continued efforts to

provide information about mental health and reduce stigma can help provide mental health services to even more students in need of support.<sup>10</sup> Mental health literacy is the knowledge and attitudes individuals have about mental health and mental health services.<sup>11,12</sup> Specifically, mental health literacy covers the following six areas: (1) knowledge and ability to identify symptoms of poor mental health; (2) knowledge and beliefs of causes of poor mental health; (3) knowledge and beliefs of self-compassion and self-care practices to maintain good mental health; (4) knowledge and beliefs of mental health services; (5) attitudes toward poor mental health and mental health services; and (6) intentions to access mental health services when needed.

Research has shown that different elements of mental health literacy are associated with better mental health, improved knowledge of and attitudes toward poor mental health, and greater intentions to seek support from mental health services.<sup>6-8,13</sup> Investigations of self-compassion have shown it to be associated with higher ratings of wellbeing and lower ratings of loneliness in young adults in the US.<sup>14</sup> To date, studies have not collectively examined all areas of mental health literacy for US university students in relation to mental health outcomes. For example, work by Miles and colleagues examined the mental health knowledge of US undergraduates without examining their attitudes toward poor mental health or their intentions to seek support.<sup>15</sup> Such fragmentation of findings make it difficult to establish

a coherent picture of the overall importance of mental health literacy of students in relation to their mental health.

The purpose of this study was to evaluate the levels of mental health literacy, intentions to seek support, distress, wellbeing, and self-compassion amongst different US university students. A secondary aim was to examine relationships between these variables.

## Methods

### Participants and procedures

After receiving ethical approval, students registered at US universities who were 18 years or older were invited to fill out online questionnaires through Qualtrics Research Panels anonymously.

### Measurements

Participants were asked demographic questions about their age, gender, sexual orientation, previous diagnosis of mental health disorder, and current education year.

The 35-item Mental Health Literacy Scale (MHLS) was used to measure literacy in mental health knowledge and attitudes.<sup>16</sup> Scores for the MHLS range from 35 to 160, with higher scores indicating greater literacy. The MHLS showed excellent internal consistency with a Cronbach's alpha of .91.

Intentions to seek support from partners, friends, mental health professionals, and religious leaders were evaluated through one question on the General Help-Seeking Questionnaire (GHSQ). Higher scores indicated a greater intention to seek support. The GHSQ has been demonstrated to have good test-retest reliability ( $r=.92$ ) and be highly correlated with seeking counseling ( $r_s=.17, p<.05$ ).<sup>17</sup>

Psychological distress was assessed through the Kessler Psychological Distress Scale 10 (K10). Scores on the K10 range from 10 to 50, with scores under 20 indicating an individual is likely to not be in distress.<sup>18</sup> The K10 showed excellent internal consistency with a Cronbach's alpha of .93.

Wellbeing was assessed through the 14-item Warwick-Edinburgh Mental Well-Being Scale (WEMWBS). Scores range from 14 to 70, with higher scores indicating higher wellbeing.<sup>19</sup> The WEMWBS indicated excellent internal consistency with a Cronbach's alpha of .94.

The 12-item Self-Compassion Scale Short Form (SCS-SF) assessed self-compassion. Scores on the scale range from 12 to 60, and higher scores representing greater warmth, connection, and concern for oneself.<sup>20</sup> The SCS-SF indicated good internal consistency with a Cronbach's alpha of .86.

### Statistical analysis

To examine differences amongst demographic variables and MHLS, GHSQ, K10, WEMWBS, and SCS-SF, Kruskal-Wallis  $H$  tests were conducted given the data was not normally distributed. To examine relationships between MHLS, GHSQ, K10, WEMWBS, and SCS-SF, Spearman's correlations were used. For all analyses, an alpha level of .05 was used.

## Results

### Demographics

A total of 326 US university students participated in the study (185 women, 133 men, three transgender, and five other). The average age of participants was 20.74 years ( $SD=2.01$ ). Students identified with the following sexual orientations: 271 (83%) heterosexual; 25 (8%) bisexual; 7 (2%) lesbian; 3 (1%) gay; and 20 (6%) other. A total of 93 (29%) students disclosed they had a previous diagnosis of a mental disorder. Students were enrolled in the following year of study: 100 (31%) first year undergraduate; 68 (21%) second year undergraduate; 51 (16%) third year undergraduate; 76 (23%) fourth year undergraduate; 24 (7%) masters; and 7 (2%) PhD.

### MHLS

The overall mean mental health literacy score was 123.96 ( $SD=16.01$ ). Women scored significantly higher ( $M=128.84, SD=15.14$ ) than men ( $M=116.64, SD=13.98$ ) ( $\chi^2(3)=53.73, p=.00$ ). Individuals who had a previous diagnosis of a mental health problem had significantly higher scores ( $M=134.14, SD=14.36$ ) than those with no previous diagnosis ( $M=120.00, SD=14.79$ ) ( $\chi^2(1)=59.09, p=.00$ ). No significant differences were found between sexual orientations or years of study ( $p>.05$ ).

### GHSQ

The overall mean general help-seeking score was 35.41 ( $SD=9.30$ ). No statistically significant differences in help seeking were found between genders, sexual orientations, years of study, or with previous diagnoses of mental health problems ( $p>.05$ ).

### K10

The mean K10 score was 24.55 ( $SD=9.39$ ). In total, 208 (63.80%) individuals indicated either mild ( $n=50, 15.34\%$ ), moderate ( $n=54, 16.56\%$ ), or severe ( $n=104, 31.90\%$ ) levels of psychological distress. Women scored significantly higher for distress ( $M=25.62, SD=9.25$ ) than men ( $M=22.59, SD=9.08$ ) ( $\chi^2(3)=15.28, p=.00$ ). Individuals who identified with a sexual orientation other than heterosexual, bisexual, gay, or lesbian, indicated a significantly higher level of distress ( $M=31.50, SD=10.47$ ) than those who identified as heterosexual ( $M=23.86, SD=9.11$ ) ( $\chi^2(4)=12.06, p=.02$ ). Those individuals who indicated a previous diagnosis of a mental health problem scored significantly higher in distress ( $M=29.45, SD=8.58$ ) than those who did not indicate a previous diagnosis of a mental health problem ( $M=22.59, SD=8.98$ ) ( $\chi^2(1)=36.72, p=.00$ ). No significant difference in wellbeing were found between years of study ( $p>.05$ ).

### WEMWBS

The mean WEMWBS score was 46.20 ( $SD=11.40$ ). Women scored significantly lower for wellbeing ( $M=44.41,$

$SD=11.33$ ) than men ( $M=49.75$ ,  $SD=10.42$ ) ( $\chi^2(3)=21.71$ ,  $p=.00$ ). A significant difference in wellbeing was found between those who identified as heterosexual ( $M=46.85$ ,  $SD=11.26$ ) and those who identified as other ( $M=36.75$ ,  $SD=13.40$ ) ( $\chi^2(4)=13.60$ ,  $p=.01$ ). Those individuals who indicated a previous diagnosis of a mental health problem scored significantly lower wellbeing ( $M=41.51$ ,  $SD=11.05$ ) than those who did not indicate a previous diagnosis of a mental health problem ( $M=48.26$ ,  $SD=10.94$ ) ( $\chi^2(1)=20.312$ ,  $p=.000$ ). No significant difference in wellbeing were found between years of study ( $p>.05$ ).

### SCS-SF

The mean self-compassion score was 36.52 ( $SD=8.23$ ). No significant differences in self-compassion were found between genders, sexual orientations, years of study, or with previous diagnoses of mental health problems ( $p>.05$ ) (see Table 1).

A Spearman's correlation determined a significant positive relationship between mental health literacy and self-compassion ( $r_s(285)=.17$ ,  $p=.00$ ) and a significant negative relationship between mental health literacy and wellbeing ( $r_s(285)=-.13$ ,  $p=.03$ ). This indicated that individuals with higher levels of mental health literacy exercised greater self-compassion and experienced less wellbeing. A significant negative relationship was found between distress and help-seeking behavior ( $r_s(326)=-.12$ ,  $p=.03$ ) and wellbeing ( $r_s(285)=-.66$ ,  $p=.00$ ). This indicated that individuals with higher distress were less likely to seek support and experienced less wellbeing. A significant positive relationship was found between self-compassion and help-seeking behavior ( $r_s(285)=.23$ ,  $p=.00$ ), meaning those who exercised greater self-compassion were more likely to seek support.

### Discussion

Our research shows that women had significantly higher levels of mental health literacy than men. Individuals who had a previous diagnosis of a mental health disorder had significantly higher levels of mental health literacy, as well as higher levels of distress, compared to those with no previous diagnosis. Moreover, women scored significantly higher for

distress and lower for wellbeing than men, whilst individuals who identified as bisexual, gay, or lesbian indicated significantly higher levels of distress and lower levels of wellbeing compared to those who identified as heterosexual. Individuals with higher levels of mental health literacy exercised greater self-compassion and experienced less wellbeing. At the same time, individuals with higher levels of distress were less likely to seek support and experience lower wellbeing. Help-seeking behavior generally represents a complex decision-making process instigated by a problem that challenges personal abilities.<sup>15</sup> This, combined with the evidence that optimism, self-esteem, and social support are often associated with decreased levels of mental distress might mean that students experiencing psychological distress are less likely to seek (professional) support.<sup>22</sup> Seeking help is also highly related to addressing public and self-stigma associated with mental health symptoms and disorders.<sup>23</sup> Research has shown that higher levels of mental health literacy have been associated with lower levels of stigma and stronger social support to see help.<sup>24</sup> Although rates of mental health service use amongst US university students has increased, there are many students who may lack the personal awareness or knowledge that they may be experiencing mental health symptoms or may feel like they cannot overcome public or self-stigma to seek support.<sup>10</sup> Mental health literacy may help facilitate this process, but further research is needed as to how to deliver it to diverse student populations.

Our research also found a significant positive relationship between mental health literacy, self-compassion, and help-seeking behavior. This association has not been reported between mental health literacy and self-compassion or wellbeing, but has been found with intentional help-seeking behavior.<sup>6,16</sup> The relationship between mental health literacy, self-compassion, wellbeing, psychological distress, and help-seeking behavior is important, in light of early intervention and identification of mental health conditions.<sup>25</sup>

Limitations of our work should be pointed out. First, this is a cross-sectional study, where only associations and not predictions can be observed from the data. Second, we did not collect data on race or ethnicity, limiting the generalizability of the findings. Despite these limitations, our research has specific implications for US college campuses. Our research highlights that while there is some understanding of common mental health disorders among university students in the US, negative attitudes toward mental health exist.<sup>26</sup> While our research highlights significant differences between women and men in relation to mental health literacy, psychological distress, and help-seeking behavior, and between those who identified as heterosexual, bisexual, gay, or lesbian other research has highlighted differences between cultures, races, and ethnic groups.<sup>27,28</sup> There is a need to design culturally competent interventions that involve diverse students, staff, and mental health professionals.<sup>29</sup>

**Table 1.** Comparing mental health literacy with help-seeking behaviors, distress, wellbeing, and self-compassion.

| Variable       | 1     | 2      | 3       | 4   | 5 |
|----------------|-------|--------|---------|-----|---|
| 1              | –     |        |         |     |   |
| 2 <sup>a</sup> | .05   | –      |         |     |   |
| 3 <sup>b</sup> | .04   | –.12*  | –       |     |   |
| 4 <sup>c</sup> | –.13* | .38*** | –.66*** | –   |   |
| 5 <sup>d</sup> | .17** | .23*** | .05     | .11 | – |

1. Mental health literacy measured by MHLS; 2. Intentions to seek support measured by GHSQ; 3. Psychological distress measured by K10; 4. Wellbeing measured by WEMWBS; 5. Self-compassion measured by SCS-SF.

<sup>a</sup> $n=326$ .

<sup>b</sup> $n=326$ ,  $n=326$ .

<sup>c</sup> $n=285$ ,  $n=285$ ,  $n=285$ .

<sup>d</sup> $n=285$ ,  $n=285$ ,  $n=285$ ,  $n=285$ .

\* $p<.05$ .

\*\* $p<.01$ .

\*\*\* $p<.001$ .

### Conflict of interest disclosure

The authors have no conflicts of interest to report. The authors confirm that the research presented in this article

met the ethical guidelines, including adherence to the legal requirements, of United Kingdom and received approval from the Institutional Review Board of University of Portsmouth.

## Funding

No funding was used to support this research and/or the preparation of the manuscript.

## ORCID

Paul Gorczynski  <http://orcid.org/0000-0001-8876-8935>

## References

- Son C, Hegde S, Smith A, Wang X, Sasangohar F. Effects of COVID-19 on college students' mental health in the United States: interview survey study. *J Med Internet Res*. 2020;22(9):e21279. doi:10.2196/21279.
- Fruehwirth JC, Biswas S, Perreira KM. The Covid-19 pandemic and mental health of first-year college students: examining the effect of Covid-19 stressors using longitudinal data. *PLoS One*. 2021;16(3):e0247999. doi:10.1371/journal.pone.0247999.
- Deng J, Zhou F, Hou W, et al. The prevalence of depressive symptoms, anxiety symptoms and sleep disturbance in higher education students during the COVID-19 pandemic: a systematic review and meta-analysis. *Psychiatry Res*. 2021;301:113863. doi:10.1016/j.psychres.2021.113863.
- Eisenberg D, Golberstein E, Hunt JB. Mental health and academic success in college. *BE J Econ Anal Policy*. 2009;9(1). doi:10.2202/1935-1682.2191.
- Lipson SK, Eisenberg D. Mental health and academic attitudes and expectations in university populations: results from the healthy minds study. *J Ment Health*. 2018;27(3):205–213. doi:10.1080/09638237.2017.1417567.
- Gorczynski P, Sims-Schouten W, Hill D, Wilson C. Examining mental health literacy, help seeking behaviours, and mental health outcomes in UK university students. *JMHTEP*. 2017;12(2):111–120. doi:10.1108/JMHTEP-05-2016-0027.
- Gorczynski P, Sims-Schouten W, Wilson C. Evaluating mental health literacy and help-seeking behaviours in UK university students: a country wide study. *JPMH*. 2020;19(4):311–319. doi:10.1108/JPMH-10-2019-0086.
- Moss R, Gorczynski P, Sims-Schouten W, Heard-Laureote K, Creaton J. Mental health and wellbeing of postgraduate researchers: exploring the relationship between mental health literacy, help-seeking behaviour, psychological distress, and wellbeing. *High Educ Res Dev*. 2021:1–16. doi:10.1080/07294360.2021.1906210.
- Locke B, Wallace D, Brunner J. Emerging issues and models in college mental health services. *New Dir Stud Serv*. 2016;2016(156):19–30. doi:10.1002/ss.20188.
- Lipson SK, Lattie EG, Eisenberg D. Increased rates of mental health service utilization by U.S. college students: 10-year population-level trends (2007–2017). *Psychiatr Serv*. 2019;70(1):60–63. doi:10.1176/appi.ps.201800332.
- Jorm AF, Korten AE, Jacomb PA, Christensen H, Rodgers B, Pollitt P. "Mental health literacy": a survey of the public's ability to recognise mental disorders and their beliefs about the effectiveness of treatment. *Med J Aust*. 1997;166(4):182–186. doi:10.5694/j.1326-5377.1997.tb140071.x.
- Jorm A. Mental health literacy. Public knowledge and beliefs about mental disorders. *Br J Psychiatry*. 2000;177(5):396–401. doi:10.1192/bjp.177.5.396.
- Bjørnsen HN, Espnes GA, Eilertsen MB, Ringdal R, Moksnes UK. The relationship between positive mental health literacy and mental well-being among adolescents: implications for school health services. *J Sch Nurs*. 2019;35(2):107–116. doi:10.1177/1059840517732125.
- Lee EE, Govind T, Ramsey M, et al. Compassion toward others and self-compassion predict mental and physical well-being: a 5-year longitudinal study of 1090 community-dwelling adults across the lifespan. *Transl Psychiatry*. 2021;11(1):397. doi:10.1038/s41398-021-01491-8.
- Miles R, Rabin L, Krishnan A, et al. Mental health literacy in a diverse sample of undergraduate students: demographic, psychological, and academic correlates. *BMC Public Health*. 2020;20(1):1699. doi:10.1186/s12889-020-09696-0.
- O'Connor M, Casey L. The Mental Health Literacy Scale (MHLS): a new scale-based measure of mental health literacy. *Psychiatry Res*. 2015;229(1–2):511–516. doi:10.1016/j.psychres.2015.05.064.
- Wilson CJ, Deane FP, Ciarrochi J, Rickwood D. Measuring help-seeking intentions: properties of the General Help-Seeking Questionnaire. *Can J Couns*. 2005;39(1):15–28.
- Kessler RC, Andrews G, Colpe LJ, et al. Short screening scales to monitor population prevalences and trends in non-specific psychological distress. *Psychol Med*. 2002;32(6):959–976. doi:10.1017/s0033291702006074.
- Tennant R, Hiller L, Fishwick R, et al. The Warwick-Edinburgh Mental Well-being Scale (WEMWBS): development and UK validation. *Health Qual Life Outcomes*. 2007;5:63. doi:10.1186/1477-7525-5-63.
- Raes F, Pommier E, Neff KD, Van Gucht D. Construction and factorial validation of a short form of the Self-Compassion Scale. *Clin Psychol Psychother*. 2011;18(3):250–255. doi:10.1002/cpp.702.
- Knowlden AP, Hackman CL, Sharma M. Lifestyle and mental health correlates of psychological distress in college students. *Health Educ J*. 2016;75(3):370–382. doi:10.1177/0017896915589421.
- Corrigan PW, Rao D. On the self-stigma of mental illness: stages, disclosure, and strategies for change. *Can J Psychiatry*. 2012;57(8):464–469. doi:10.1177/070674371205700804.
- Jung H, von Sternberg K, Davis K. The impact of mental health literacy, stigma, and social support on attitudes toward mental health help-seeking. *Int J Ment Health Promot*. 2017;19(5):252–267. doi:10.1080/14623730.2017.1345687.
- Kutcher S, Wei Y, Coniglio C. Mental health literacy: past, present, and future. *Can J Psychiatry*. 2016;61(3):154–158. doi:10.1177/0706743715616609.
- Singh S, Zaki RA, Farid NDN. A systematic review of depression literacy: knowledge, help-seeking and stigmatising attitudes among adolescents. *J Adolesc*. 2019;74:154–172. doi:10.1016/j.adolescence.2019.06.004.
- Aluh DO, Okonta MJ, Odili VU. Cross-sectional survey of mental health literacy among undergraduate students of the University of Nigeria. *BMJ Open*. 2019;9(9):e028913. doi:10.1136/bmjopen-2019-028913.
- Nguyen Thai QC, Nguyen TN. Mental health literacy: knowledge of depression among undergraduate students in Hanoi, Vietnam. *Int J Ment Health Syst*. 2018;12:19. doi:10.1186/s13033-018-0195-1.
- Jongen CS, McCalman J, Bainbridge RG. The implementation and evaluation of health promotion services and programs to improve cultural competency: a systematic scoping review. *Front Public Health*. 2017;5(24):24. doi:10.3389/fpubh.2017.