

The Positive Impact of Digital Mental Wellness Education

For Students in Grades 8–10

Overview

Adolescence is a formative time when students are exposed to physical changes, peer pressure, and educational stress which can have varying impacts on their mental health.^{[1][2][4]} It is also during this time the marked gender gap in mental health surfaces, in which females experience higher rates of need.^{[3][4]}

Understanding Mental Wellness is a course designed to introduce all students to mental health topics and coping strategies. It teaches them when and how to seek help for themselves and others. Past research has shown that increasing mental health literacy has been linked to improved awareness of resources, decreased stigma, and increased intent to seek help.^{[5][6]} Given this, and the gender gap in mental wellness, this current research brief investigated changes to student help-seeking intentions and skill confidence^[9] by student-reported gender, to better understand the potential impact the course may be having during these formative years in students' lives.

Impact Findings

1. Students reported positive changes in help-seeking intentions.^[7]

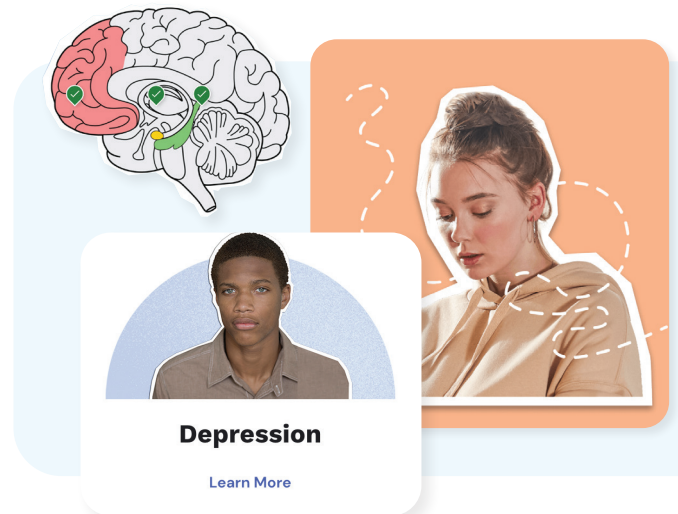
Question ex: "How likely are you to talk with a teacher or other school staff about what to do when someone is depressed?"

On average, there was a moderate change in their help-seeking intentions after completing Understanding Mental Wellness. Students reported an increased likelihood of seeking help for themselves or others. However, gender categories did not show significantly different rates of change from one another.

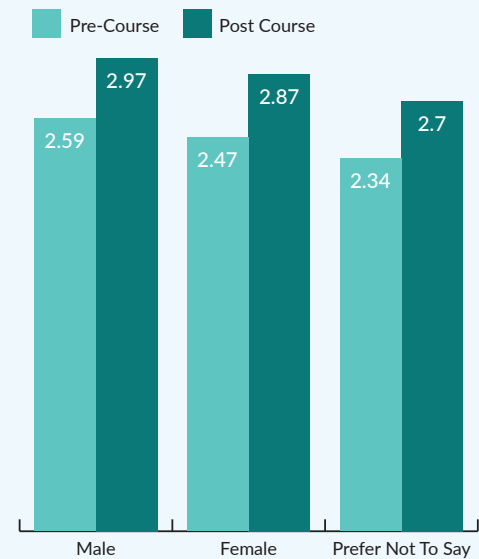
2. The gap in skill confidence between male and female-identifying students was dramatically reduced.^[8]

Question ex: "How confident are you in identifying signs your mental health is at risk?"

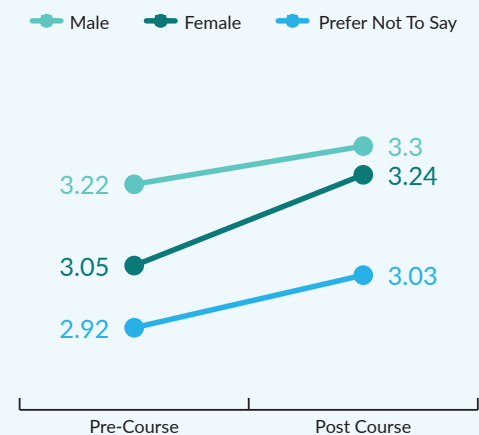
On average, students reported a significant, albeit small change in their skill confidence after completing Understanding Mental Wellness. Students reported higher levels of confidence related to coping skills, identifying signs of risk, and finding resources. Female-identifying students saw a larger change in skill confidence, greatly diminishing the gap with male-identifying students prior to the course.



Changes in Help-Seeking by Gender



Changes in Skill Confidence by Gender



By providing students with the knowledge and skills to address mental health challenges, such programs as Understanding Mental Wellness can contribute to improved confidence using coping skills and increased help-seeking behaviors in times of need. Although not causal, the results from this research continue to underscore the importance of implementing mental wellness education in schools to support students' mental health literacy and skills.

- [1] Viner, R. M., Ross, D., Hardy, R., Kuh, D., Power, C., Johnson, A., ... & Batty, G. D. (2015). Life course epidemiology: recognising the importance of adolescence. *J Epidemiol Community Health*, 69(8), 719-720.
- [2] see WHO. (2020). Adolescent mental health. <https://www.who.int/news-room/fact-sheets/detail/adolescent-mental-health>
- [3] Wade, T. J., Cairney, J., & Pevalin, D. J. (2002). Emergence of gender differences in depression during adolescence: National panel results from three countries. *Journal of the American Academy of Child & Adolescent Psychiatry*, 41(2), 190-198.
- [4] Campbell, O. L., Bann, D., & Patalay, P. (2021). The gender gap in adolescent mental health: A cross-national investigation of 566,829 adolescents across 73 countries. *SSM-Population Health*, 13.
- [5] Ratnayake P and Hyde C (2019). Mental Health Literacy, Help-Seeking Behaviour and Wellbeing in Young People: Implications for Practice. *The Educational and Developmental Psychologist* 36, 16-21. doi: 10.1017/edp.2019.1
- [6] Tay, J. L., Tay, Y. F., & Klainin-Yobas, P. (2018). Effectiveness of information and communication technologies interventions to increase mental health literacy: A systematic review. *Early intervention in psychiatry*, 12(6), 1024-1037.
- [7] A two-way mixed ANOVA was conducted using Fall 2022 pre- and post-course survey data from students who completed the course in greater than or equal to one day (n = 5933), to ensure the sample reflected students who had meaningful interaction with the content. Student responses to help-seeking items were averaged, and gender was set as the between-subjects factor. There were no outliers, as assessed by studentized residuals of ± 3 . The data were normally distributed, as assessed by a P-P plot. Initially, homogeneity of variances was violated slightly for the pre-survey (p = .01) and met for the post-survey (p = .21) and met as well for covariances (p = .14), as assessed by Levene's test of homogeneity of variances and Box's M test, respectively. Out of an abundance of caution, a square root transformation was performed on both the pre- and post-survey scores for help-seeking. All stated assumptions were retested and subsequently met. Mauchly's test of sphericity was met inherently due to the repeated measure only having two levels. There was no statistically significant interaction between student-reported gender and completing the Understanding Mental Wellness program on average help-seeking intentions, $F(2, 5930) = .80, p = .45, \text{partial } \eta^2 = .00$. The main effect of the program showed a statistically significant moderate difference in mean help-seeking intentions at the different time points, $F(1, 5930) = 423.68, p < .001, \text{partial } \eta^2 = .07$. The main effect of student gender showed that there was a small statistically significant difference in mean help-seeking intention between male, female, and different/prefer not to identify students $F(2, 5930) = 14.77, p < .001, \text{partial } \eta^2 = .01$. The largest difference was observed between male-identifying students and different/prefer not to identify students (.08 , 95% CI [.04, .12]).
- [8] Another two-way mixed ANOVA was conducted on the same students described above (n = 5312). Student responses to skill confidence items were averaged, and gender was set as the between-subjects factor. There were no outliers, as assessed by studentized residuals of ± 3 . The data were normally distributed, as assessed by a P-P plot. Homogeneity of variances was violated for the pre-survey (p < .02) and post-survey (p < .01), and for covariances (p < .01), as assessed by Levene's test of homogeneity of variances and Box's M test, respectively. Mauchly's test of sphericity was met inherently due to the repeated measure only having two levels. While homogeneity assumptions were violated, Howell (2012) suggested that if the largest sample variance is no more than four times the smallest, the analysis of variance is most likely to be valid. In the current analysis, the largest sample variance is no more than one times the smallest. Therefore, given the robustness of the ANOVA, the results can be interpreted, albeit with caution. There was a statistically significant interaction between student-reported gender and completing the Understanding Mental Wellness program on average skill confidence, $F(2, 5309) = 16.40, p < .001, \text{partial } \eta^2 = .01$. The main effect of the program showed a statistically significant difference in mean skill confidence at the different time points, $F(1, 5309) = 91.80, p < .001, \text{partial } \eta^2 = .02$. The main effect of student gender showed that there was a small statistically significant difference in mean skill confidence between male, female, different/prefer not to identify students $F(2, 5309) = 30.49, p < .001, \text{partial } \eta^2 = .01$. In particular the largest difference was observed between male-identifying students and different/prefer not to identify students (.29 , 95% CI [.19, .39]). Visual inspection of the plot shows female-identifying students with greater change over time.
- [9] A total of 14 five-point scale Likert survey items were shown to the student through the LMS both before and after finishing the course, only if they reported they were 13 years or older during enrollment. The survey is completely voluntary and has an opt-in or out option on the first page of the survey. Students also reported their gender optionally at the end of the pre-survey. Items were adapted from Lindow et al. (2020), the General Help Seeking Questionnaire (GHSQ), and Mental Health Literacy Scale (MHLS). The survey was designed to measure several underlying constructs related to mental wellness. A factor analysis revealed that three clear constructs were being measured. One construct, 'help-seeking intention', consisted of four questions. Two were removed from the scale following factor analysis results. The remaining two-item scale had a high level of internal consistency ($\alpha = 0.78$). The second construct, "skill confidence", consisted of seven items. Following the factor analysis, all items were retained, and the scale had a high level of internal consistency ($\alpha = 0.84$).