

Eating Disorders, Depression, and Anxiety: A Multivariate Survey of College Students in the Southeast

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Introduction

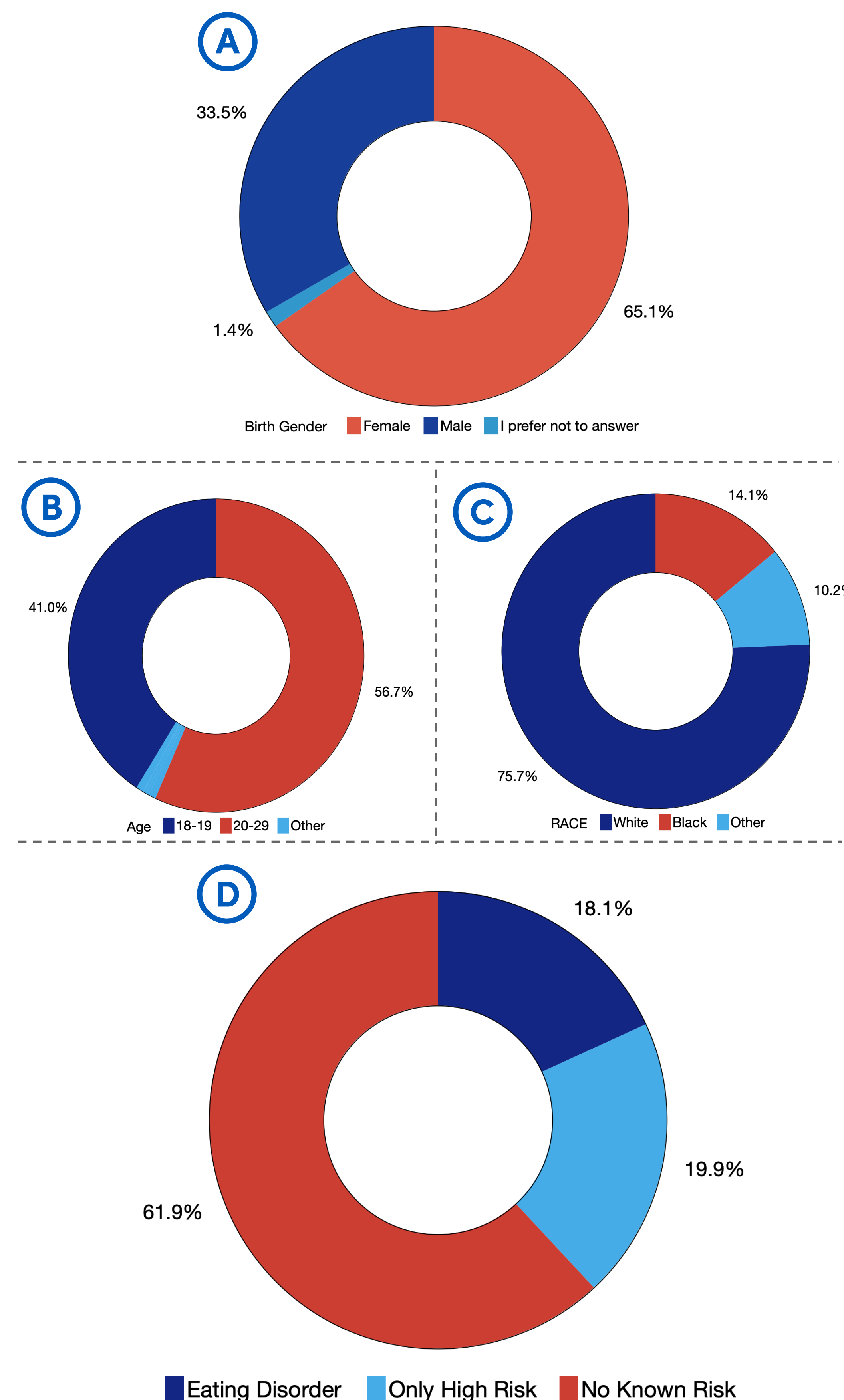
Mental illness is America's leading cause of disability (Rehm & Shield, 2019). Of particular concern is the finding that more than 60% of college students meet the criteria for one or more mental health problems, an increase of nearly 50% from 2013 (Lipson et al., 2022). Young adults, particularly young women, are vulnerable to anxiety, depression, and eating disorders [EDs] (De Young, 2017). Moreover, co-occurring anxiety or depression disorders are associated with far worse symptoms, a poorer prognosis, and a higher disease burden in EDs (Sander et al., 2021). Given the high incidence of depression, anxiety, and EDs, their comorbidities, and their profound effect, their correlation must be thoroughly investigated, especially in a highly susceptible college-aged population.

Methods

During 2022, survey data was collected using online and paper-pencil surveys which were first approved by the Institutional Review Board and distributed at a southeastern university. Measures were included for eating disorders (Stanford-Washington Eating Disorder Screen [SWED], Graham et al., 2019), anxiety (General Anxiety Disorder-7 [GAD-7], Spitzer et al., 2006), depression (Patient Health Questionnaire-9 [PHQ-9], Kroenke et al., 2001), and perceived social support (Multidimensional Scale of Perceived Social Support [MSPSS], Zimet et al., 1988). Means, percentages, one-way ANOVA, Levene's test, and Welch's Analysis of Variance (ANOVA) were used to analyze the data. A p-value of .05 was required for statistical significance.

Data Analysis

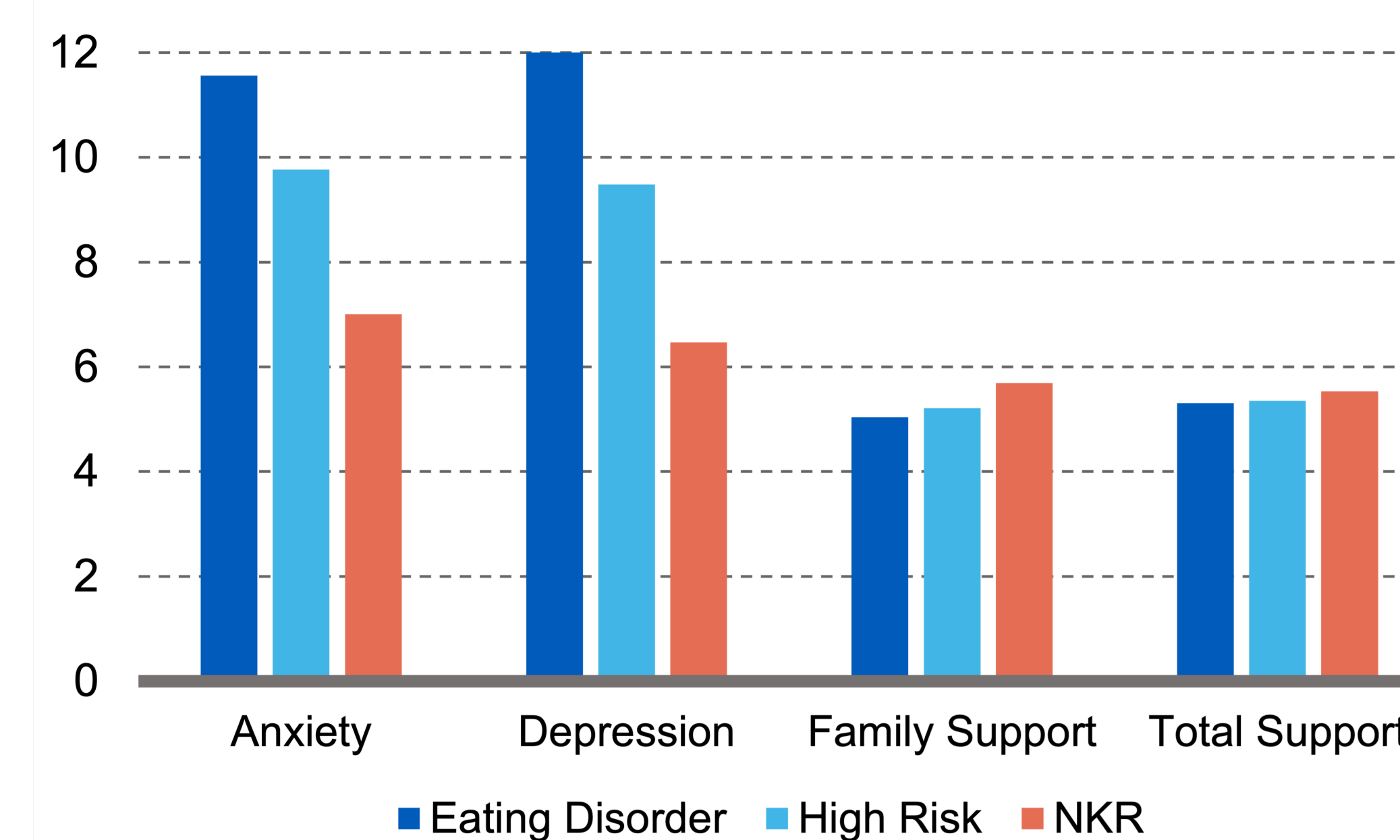
- A. Participants (n=998) were mostly female (65.1%)
- B. Between the ages of 20 to 29 (56.7%)
- C. Most identified as White (79.4%)
- D. Thirty-eight percent (38.0%) screened as high risk for an eating disorder and among those, 18.1% screened positive for at least one eating disorder



Results

- E. Participants who screened positive for an eating disorder [ED] reported significantly higher scores for anxiety (ED: M = 11.56, SD = 6.02; NKR: M = 7.01, SD = 5.66, $p < .0001$), depression (ED: M = 12.03, SD = 6.74; NKR: M = 6.47, SD = 5.55, $p < .0001$) than those with no known risk [NKR].
- F. Using odds ratios, women were 4.06x more likely to screen positive for eating disorders (Male [2.00%], Female [15.8%], $n=998$, $p < .0001$).
- G. Using the GLM ANOVA, anxiety and depression scores were significantly different by gender with females having higher anxiety and depression scores (GAD7: M=9.52, $p < .0001$, PHQ9: M=9.15) than males (GAD7: M=6.20, $p < .0001$, PHQ9: M=5.90).
- H. Participants who screened positive for an [ED] reported significantly lower scores for family perceived social support (ED: M = 5.04, SD = 1.79; NKR: M = 5.69, SD = 1.53, $p < .0001$), and total perceived social support (ED: M = 5.31, SD = 1.32; NKR: M = 5.53, SD = 1.32, $p < .05$), than those with NKR.

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Women had higher scores of Anxiety & Depression and were over 4x more likely to score ED +

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Conclusion

This study builds on previous research by De Young (2017) and Garcia (2020), who also found that higher levels of anxiety and depression among undergraduates were linked to more severe ED pathology. Furthermore, several of the findings regarding social support should be considered by those in the field. For instance, how a lack of perceived family social support may influence ED etiology. Further research is needed to investigate the formative relationship between anxiety, depression, and EDs.

References

1. Rehm, J., & Shield, K. D. (2019). Global Burden of Disease and the Impact of Mental and Addictive Disorders. *Current psychiatry reports*, 21(2), 10. <https://doi.org/10.1007/s11920-019-0997-0>
2. Lipson, S. K., Zhou, S., Abelson, S., Heinze, J., Jirsa, M., Morigney, J., Patterson, A., Singh, M., & Eisenberg, D. (2022). Trends in college student mental health and help-seeking by Race/ethnicity: Findings from the National Healthy Minds Study, 2013–2021. *Journal of Affective Disorders*, 306, 138–147. <https://doi.org/10.1016/j.jad.2022.03.038>
3. Sander, J., Moessner, M., & Bauer, S. (2021). Depression, anxiety and eating disorder-related impairment: Moderators in female adolescents and young adults. *International Journal of Environmental Research and Public Health*, 18(5), 2779. <https://doi.org/10.3390/ijerph18052779>
4. Graham, A. K., Trockel, M., Weisman, H., Fitzsimmons-Craft, E. E., Balantekin, K. N., Wilfley, D. E., & Taylor, C. B. (2018). A screening tool for detecting eating disorder risk and diagnostic symptoms among college-age women. *Journal of American College Health*, 67(4), 357–366. <https://doi.org/10.1080/07446481.2018.1483936>
5. Spitzer, R. L., Kroenke, K., Williams, J. B., & Löwe, B. (2006). A brief measure for assessing generalized anxiety disorder. *Archives of Internal Medicine*, 166(10), 1092. <https://doi.org/10.1001/archinte.166.10.1092>
6. Kroenke, K., Spitzer, R. L., Williams, J. B. W., Monahan, P. O., & Löwe, B. (2007). Anxiety disorders in primary care: Prevalence, impairment, comorbidity, and detection. *Annals of Internal Medicine*, 146(5), 317. <https://doi.org/10.7326/0003-4819-146-5-200703060-00004>
7. Zimet, G. D., Dahlem, N. W., Zimet, S. G., & Farley, G. K. (1988). The multidimensional scale of perceived social support. *Journal of Personality Assessment*, 52(1), 30–41. https://doi.org/10.1207/s15327752jpa5201_2
8. De Young, K.P. (2017). Comorbidities: Anxiety disorders. In T. Wade (Ed.), *Encyclopedia of feeding and eating disorders* (pp. 1-5). Singapore: Springer. <https://doi.org/10.1007/978-981-287-104-6>
9. Garcia, S. C., Mikhail, M. E., Keel, P. K., Burt, S. A., Neale, M. C., Boker, S., & Klump, K. L. (2020). Increased rates of eating disorders and their symptoms in women with major depressive disorder and anxiety disorders. *International Journal of Eating Disorders*, 53(11), 1844–1854. <https://doi.org/10.1002/eat.23366>