Posttraumatic Stress Disorder and Binge-Eating Disorder: Further Context and Additional Findings From a Nationally Representative Sample of Adults in the United States

To the Editor: Braun and colleagues[1] recently published an analysis of associations between trauma exposure, posttraumatic stress disorder (PTSD) symptoms, and binge eating symptoms using data from the third wave (2012–2013) of the National Epidemiologic Survey on Alcohol and Related Conditions-III (NESARC-III; N = 36,309). They reported that both subthreshold and threshold PTSD are associated with a great number of binge eating symptoms,[1] which represents important new information regarding the associations among *DSM-5*–defined PTSD and binge eating symptoms.[2] However, Braun and colleagues[1] did not reference or incorporate relevant epidemiologic findings from NESARC-III[3–5] that provide important complementary contexts for their findings regarding the relationship between PTSD and binge eating.

Using NESARC-III data, Udo and Grilo[3] previously reported that 31.6% (SE = 2.50) of respondents with lifetime binge-eating disorder (BED) diagnoses also met criteria for PTSD; risks remained significantly elevated after adjusting for sociodemographic variables (adjusted odds ratio [AOR] = 6.24, 95% confidence interval [CI] = 4.66–8.35) and even after additionally adjusting for diagnoses of other psychiatric disorders (AOR = 1.74, 95% CI = 1.21–2.50). Udo and colleagues[4] further reported that NESARC-III respondents with lifetime BED who reported histories of suicide attempts were significantly more likely to have lifetime diagnoses of PTSD than those without histories of suicide attempts (58.4% vs 24.1%). Importantly, these previous studies used recoded BED variables created by Udo and Grilo[5] (after inspection of the NESARC-III dataset revealed various errors) to calculate prevalence estimates of *DSM-5* eating disorder diagnoses in US adults (see supplemental tables of Udo and Grilo[5] for detailed operationalization and rescoring of the BED diagnosis, and see Udo and Grilo[6] for discussion of assessment complexities). Using these diagnosis variables, Udo and Grilo[5] found prevalence estimates of 0.85% (SE = 0.05) for lifetime BED and 0.44% (SE = 0.04) for 12-month BED, which differs from the 0.80% lifetime prevalence reported by Braun et al[1] and Afifi et al.[7]

The symptom-level associations between PTSD and binge eating reported by Braun et al[1] in the context of diagnostic-level findings previously reported by Udo and Grilo[3,4] provide further support for clinical findings that persons with these profiles represent a challenging or more severe subgroup. For example, Grilo and colleagues,[8] using diagnostic interviews reliably administered by doctoral research-clinicians, found that 24% of a consecutive series of treatment-seeking women with BED met criteria for PTSD and that those women were characterized by significantly elevated rates of mood, anxiety, and drug use disorders along with greater eating disorder psychopathology, even after adjusting for anxiety disorder comorbidity.

Finally, Braun et al[1] speculated that co-occurrence between PTSD and binge eating symptoms might be understood through self-medication and food addiction hypotheses whereby binge eating serves as a coping or reward method. We emphasize that further research is needed to critically examine potential shared and unique mechanisms underlying binge eating and "addictive" behaviors.[9,10] Future research should also examine the prognostic importance of PTSD for BED outcomes; to date, limited research has not found psychiatric comorbidity to dampen treatment outcomes in controlled trials for BED,[11,12] although, to our knowledge, PTSD has not been tested as a predictor or a moderator of treatment outcomes.[13]

REFERENCES

1. Braun J, El-Gabalawy R, Sommer JL, et al. Trauma exposure, *DSM-5* postraumatic stress, and binge eating symptoms: results from a nationally representative sample. *J Clin Psychiatry*. 2019;80(6):19m12813.
2. American Psychiatric Association. *Diagnostic and Statistical Manual for Mental Disorders*. Fifth Edition. Washington, DC: American Psychiatric Association; 2013.
3. Udo T, Grilo CM. Psychiatric and medical correlates of *DSM-5* eating disorders in a nationally representative sample of adults in the United States. *Int J Eat Disord*. 2019;52(1):42–50.
4. Udo T, Bitley S, Grilo CM. Suicide attempts in US adults with lifetime *DSM-5* eating disorders. *BMC Med*. 2019;17(1):120.
5. Udo T, Grilo CM. Prevalence and correlates of *DSM-5*-defined eating disorders in a nationally representative sample of US adults. *Biol Psychiatry*. 2018;84(5):345–354.
6. Udo T, Grilo CM. Reply to: Insight May Limit Identification of Eating Disorders. *Biol Psychiatry*. 2019;85(11):e57–e58.
7. Afifi TO, Sareen J, Fortier J, et al. Child maltreatment and eating disorders among men and women in adulthood: results from a nationally representative United States sample. *Int J Eat Disord*. 2017;50(11):1281–1296.
8. Grilo CM, White MA, Barnes RD, et al. Posttraumatic stress disorder in women with binge eating disorder in primary care. *J Psychiatr Pract*. 2012;18(6):408–412.
9. Schulte EM, Joyner MA, Potenza MN, et al. Current considerations regarding food addiction. *Curr Psychiatry Rep*. 2015;17(4):563.
10. Schulte EM, Grilo CM, Gearhardt AN. Shared and unique mechanisms underlying binge eating disorder and addictive disorders. *Clin Psychol Rev*. 2016;44:125–139.
11. Masheb RM, Grilo CM. Examination of predictors and moderators for self-help treatments of binge-eating disorder. *J Consult Clin Psychol*. 2008;76(5):900–904.
12. Grilo CM, Masheb RM, Crosby RD. Predictors and moderators of response to cognitive behavioral therapy and medication for the treatment of binge eating disorder. *J Consult Clin Psychol*. 2012;80(5):897–906.
13. Vall E, Wade TD. Predictors of treatment outcome in individuals with eating disorders: a systematic review and meta-analysis. *Int J Eat Disord*. 2015;48(7):946–971.

Carlos M. Grilo, PhD[a]
carlos.grilo@yale.edu
Tomoko Udo, PhD[b]

[a]Department of Psychiatry, Yale University School of Medicine, New Haven, Connecticut
[b]Department of Health Policy, Management, and Behavior, School of Public Health, University of Albany, State University of New York, Albany, New York

Dr Mota and Colleagues Reply

To the Editor: We thank Grilo and Udo[1] for highlighting their important work on the prevalence and correlates of binge-eating disorder (BED) using data from the National Epidemiologic Survey on Alcohol and Related Conditions-III (NESARC-III). With a reworked prevalence estimate of BED that differed slightly from that documented in previous studies using the NESARC-III (0.85% vs 0.80%),[2] Grilo and Udo identified a high prevalence of posttraumatic stress disorder (PTSD: 31.6%) among US adults with lifetime BED.[3] This association between BED and PTSD remained statistically significant after adjustment for sociodemographic variables and other mental disorders. Similarly, in our study of the NESARC-III cohort,[4] we found the prevalence of BED to be elevated among US adults with lifetime PTSD compared to those without (4.1% vs 0.8%). Together, these population-based findings underscore the high comorbidity between BED and PTSD and the concomitant need to understand how to prevent and efficiently treat their co-occurrence. For example, we found that negative cognition and mood symptoms of PTSD, in particular, were associated with a greater number of BED symptoms.[5] Thus, psychotherapies focused on addressing negative cognitions and emotions that characterize both BED and PTSD may be helpful in mitigating co-occurring symptoms of these disorders.[6]

We wish to emphasize, however, the importance of using a dimensional approach to understanding the association between BED and PTSD symptoms. While Udo and Grilo[2] found that the prevalence of BED in the general population is relatively low, our study results indicated that between 5.5% and 40.0% of US adults endorsed 1 or more BED symptoms, which varied as a function of trauma exposure and PTSD diagnosis.[5] Specifically, we observed a "dose response" relationship in which the number of BED symptoms was lowest in a non–trauma-exposed group, intermediate in the trauma-exposed and subthreshold PTSD groups, and highest in the PTSD group. These findings suggest that the link between PTSD and BED symptoms extends beyond the presence of either diagnosis and that a much larger subsample of trauma-exposed individuals may experience BED symptoms.

Other work from our group suggests that there may be different maladaptive eating typologies in individuals with PTSD that are not necessarily diagnostic. Specifically, among US adults with lifetime PTSD in the NESARC-III, we identified 5 latent classes of maladaptive eating typologies in 41.1% of respondents: broad eating psychopathology (2.2%), low past weight (9.6%), binge eating (6.0%), overeating (19.9%), and restrictive eating and cognitive distortions (3.4%).[4] Importantly, individuals in all maladaptive eating typologies had increased odds of several medical conditions relative to individuals with no PTSD and no eating disorder and to those with PTSD and no eating psychopathology.[4]

We echo Grilo and Udo's conclusion that future research should strive to understand the mechanisms driving maladaptive eating behaviors such as binge eating among individuals with PTSD. We add that future research should also continue to examine the mental and physical health sequelae of a full range of maladaptive eating behaviors among individuals with PTSD symptoms. The employment of novel approaches such as machine learning[7] and network modeling[8] may also be informative in elucidating multivariable predictors of PTSD-BED, as well as the complex interplay of these symptoms.[6]

REFERENCES

1. Grilo CM, Udo T. Posttraumatic stress disorder and binge eating disorder: further context and additional findings from a nationally representative sample of adults in the United States. *J Clin Psychiatry*. 2020;81(1):19lr13157.
2. Udo T, Grilo CM. Prevalence and correlates of *DSM-5*-defined eating disorders in a nationally representative sample of US adults. *Biol Psychiatry*. 2018;84(5):345–354.
3. Udo T, Grilo CM. Psychiatric and medical correlates of *DSM-5* eating disorders in a nationally representative sample of adults in the United States. *Int J Eat Disord*. 2019;52(1):42–50.
4. Sommer JL, Mota N, El-Gabalawy R. Maladaptive eating in posttraumatic stress disorder: a population-based examination of typologies and medical condition correlates. *J Trauma Stress*. 2018;31(5):708–718.
5. Braun J, El-Gabalawy R, Sommer JL, et al. Trauma exposure, *DSM-5* posttraumatic stress, and binge eating symptoms: results from a nationally representative sample. *J Clin Psychiatry*. 2019;80(6):19m12813.
6. Brewerton T. An overview of trauma-informed care and practice for eating disorders. *J Aggress Maltreat Trauma*. 2019;28(4):445–462.
7. Karstoft KI, Galatzer-Levy IR, Statnikov A, et al; members of Jerusalem Trauma Outreach and Prevention Study (J-TOPS) group. Bridging a translational gap: using machine learning to improve the prediction of PTSD. *BMC Psychiatry*. 2015;15(30):30.
8. Armour C, Fried EI, Deserno MK, et al. A network analysis of *DSM-5* posttraumatic stress disorder symptoms and correlates in US military veterans. *J Anxiety Disord*. 2017;45:49–59.

Natalie Mota, PhD[a]
natalie.mota@umanitoba.ca
Joel Braun, MD, BSc[b]
Robert H. Pietrzak, PhD, MPH[c,d]
Renée El-Gabalawy, PhD[a,e]
Jordana L. Sommer, MA[e]
Karen Mitchell, PhD[f,g]

[a]Department of Clinical Health Psychology, University of Manitoba, Winnipeg, Manitoba, Canada

[b]Rady Faculty of Health Sciences, University of Manitoba, Winnipeg, Manitoba, Canada

[c]National Center for Posttraumatic Stress Disorder, VA Connecticut Healthcare System, West Haven, Connecticut

[d]Department of Psychiatry, Yale University School of Medicine, New Haven, Connecticut

[e]Department of Anesthesiology, Perioperative and Pain Medicine, University of Manitoba, Winnipeg, Manitoba, Canada

[f]National Center for Posttraumatic Stress Disorder, VA Boston Healthcare System, Boston, Massachusetts

[g]Department of Psychiatry, Boston University School of Medicine, Boston, Massachusetts

To cite: Mota N, Braun J, Pietrzak RH, et al. Dr Mota and colleagues reply. *J Clin Psychiatry*. 2020;81(2):19lr13157a.

To share: https://doi.org/10.4088/JCP.19lr13157a

© *Copyright 2020 Physicians Postgraduate Press, Inc.*