Developmental disruption by binge-eating disorder and bulimia nervosa: critical windows for detection and intervention

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The careful exploration of educational attainment, marital and occupational status, and role impairment associated with binge-eating disorder (BED) and bulimia nervosa (BN) in 12 countries around the world is a valuable and timely contribution to our understanding of the ways in which eating disorders and their associated physical and psychiatric comorbidities adversely affect functioning over time.

The path toward formal inclusion of BED into the psychiatric nomenclature via DSM-5 has not been without controversy (Fairburn *et al.* 1993; Spitzer *et al.* 1993; Stunkard & Allison, 2003; Wilfley *et al.* 2003; Frances, 2012). In parallel, a simplistic bias has prevailed that BED is somehow less severe than the other eating disorders (i.e., anorexia and BN), perhaps due to the absence of visible emaciation as seen in AN or the absence of purging in BN, which is known to be associated with adverse psychiatric and medical outcomes (Berkman *et al.* 2007). As such, the data presented here that directly juxtapose BED and BN allow us to gauge comparative impact in terms of these important longer-term outcomes.

In the interest of extracting the most important kernels of information from the paper, it is best to acknowledge, but not dwell on limitations raised by the authors such as the indirect assessment of loss of control, variable response rates across countries, and the use of fully structured interviews. Far more important are the core observations and the implications

they may have for the detection and treatment of eating disorders in young adults.

As illustrated in this work, onset of BN (age 18.0) and BED (age 19.3) usually occurs during important formative developmental periods when individuals are transitioning to independence. Accordingly eating disorders and their associated morbidities may influence the social and emotional decisions and choices being made at that time.

Perhaps unexpectedly, females with BED and BN had higher levels of subsequent educational attainment than individuals without eating disorders. The authors ascribe this observation to perfectionism, which has been associated with both AN and BN, although the relation between perfectionism and BED has been less thoroughly documented (Bardone-Cone *et al.* 2007). Subsequent studies should endeavor to explore additional factors that could account for this anomalous finding.

The onset of BED and BN during the formative late adolescent-early adult years, or *early onset* as described by the authors, appears to influence major developmental outcomes with BED being associated with reduced odds of marriage in women and reduced odds of employment in men, and BN being associated with increased odds of work disability in women. Although the magnitude of the impact of BED and BN on these outcomes is attenuated when accounting for other early onset mental disorders, in many ways that attenuation is not relevant clinically. It has long been known that eating disorders are commonly comorbid, especially with affective and anxiety disorders (Hudson *et al.* 2007; Javaras *et al.* 2008; Kessler *et al.* 2013), and it is the summative impact of the entire constellation of eating disorders and associated psychiatric and medical morbidity that is relevant to the individual.

In terms of relationships, we too have shown that marital functioning in women with BED is comparable or worse than marital functioning of women with

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other major psychiatric disorders (Whisman *et al.* 2012), again underscoring the impact of this eating disorder on interpersonal functioning.

The authors explain one of their findings – namely the elevated rate of subsequent onset of BED and BN with student status in females to be related to appearance related social pressures and body dissatisfaction. Although plausible, it is noteworthy that the diagnostic criteria for BED do not include any mention of body dissatisfaction, or, in contrast to the criteria for anorexia and BN, of undue influence of body weight or shape on self-evaluation. Alternative explanations to consider could also focus more on academic pressures associated with studying and the role that binge eating and purging (in the case of BN) can play in affect regulation (Whiteside *et al.* 2007; Berg *et al.* 2013), although controversy exists regarding the extent to which binge eating actually modulates affect (Haedt-Matt & Keel, 2011). In the face of mounting biological evidence to the contrary, care must be taken not to perpetuate the notion that eating disordered behavior is primarily motivated by appearance-related social pressures.

BN, but not BED, predicted disability despite both disorders having similar comorbidity profiles. The authors correctly speculate that the adverse physical effects from purging may be the culprit in this result. Upwards of 16% of emergency department patients ages 14–20 screen positive for an eating disorder (Dooley-Hash *et al.* 2012) and the presenting complaints can be challenging to recognize and manage (Trent *et al.* 2013). Given the documented association between BED and obesity (Hudson *et al.* 2006, 2010), one could speculate that a longer observation period as patients age might reveal additional disabilities and escalating health care utilization secondary to medical morbidities associated with chronic high BMI in overweight individuals with BED.

Three important take home messages emerge from this important piece of work.

First, eating disorders come bundled with a number of physical and psychiatric comorbidities and although their effects on role impairment may be mediated statistically by the comorbid conditions, such disaggregation is not possible in an individual who is suffering from an eating disorder. Thus the personal toll caused by eating disorders is exacted via the combined effects of the eating disorder and associated comorbidities.

Second, these results underscore that BED belongs in the DSM-5 as a formal diagnosis and further dispel any myths that it is in any way less severe than BN.

Finally, pinpointing this young adult transitional period as a high-risk interval for the onset of BED and BN and illustrating the persistent effects that the disorders and their attendant comorbidities have on later role incumbency and functioning addresses the

need for detection and early intervention in this age group. Most individuals with eating disorders delay treatment seeking and only half of individuals with lifetime BED or BN receive treatment (Kessler *et al.* 2013). Earlier detection and effective intervention in the young adult years could potentially obviate the long-term adverse impact on social and occupational functioning illustrated here.

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Conflict of Interest

The author is a consultant for Shire Pharmaceuticals.

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References

- Bardone-Cone AM, Wonderlich SA, Frost RO, Bulik CM, Mitchell JE, Uppala S, Simonich H (2007). Perfectionism and eating disorders: current status and future directions. *Clinical Psychology Review* 27, 384–405.
- Berg KC, Crosby RD, Cao L, Peterson CB, Engel SG, Mitchell JE, Wonderlich SA (2013). Facets of negative affect prior to and following binge-only, purge-only, and binge/purge events in women with bulimia nervosa. *Journal of Abnormal Psychology* 122, 111–118.
- Berkman ND, Lohr KN, Bulik CM (2007). Outcomes of eating disorders: a systematic review of the literature. *International Journal of Eating Disorders* 40, 293–309.
- Dooley-Hash S, Banker JD, Walton MA, Ginsburg Y, Cunningham RM (2012). The prevalence and correlates of eating disorders among emergency department patients aged 14–20 years. *International Journal of Eating Disorders* 45, 883–890.
- Fairburn CG, Welch SL, Hay PJ (1993). The classification of recurrent overeating: the “binge eating disorder” proposal. *International Journal of Eating Disorders* 13, 155–159.
- Frances A (2012). DSM-5 Is a Guide, Not a Bible: Simply Ignore Its 10 Worst Changes. *Huff Post Science* http://www.huffingtonpost.com/allen-frances/dsm-5_b_2227626.html.
- Haedt-Matt AA, Keel PK (2011). Revisiting the affect regulation model of binge eating: a meta-analysis of studies using ecological momentary assessment. *Psychological Bulletin* 137, 660–681.
- Hudson JI, Lalonde JK, Berry JM, Pindyck LJ, Bulik CM, Crow SJ, McElroy SL, Laird NM, Tsuang MT, Walsh BT,

- Rosenthal NR, Pope HG Jr.** (2006). Binge-eating disorder as a distinct familial phenotype in obese individuals. *Archives of General Psychiatry* **63**, 313–319.
- Hudson JI, Hiripi E, Pope HG Jr., Kessler RC** (2007). The prevalence and correlates of eating disorders in the National Comorbidity Survey Replication. *Biological Psychiatry* **61**, 348–358.
- Hudson JI, Lalonde JK, Coit CE, Tsuang MT, McElroy SL, Crow SJ, Bulik CM, Hudson MS, Yanovski JA, Rosenthal NR, Pope HG Jr.** (2010). Longitudinal study of the diagnosis of components of the metabolic syndrome in individuals with binge-eating disorder. *American Journal of Clinical Nutrition* **91**, 1568–1573.
- Javaras KN, Pope HG, Lalonde JK, Roberts JL, Nillni YI, Laird NM, Bulik CM, Crow SJ, McElroy SL, Walsh BT, Tsuang MT, Rosenthal NR, Hudson JI** (2008). Co-occurrence of binge eating disorder with psychiatric and medical disorders. *Journal of Clinical Psychiatry* **69**, 266–273.
- Kessler RC, Berglund PA, Chiu WT, Deitz AC, Hudson JI, Shahly V, Aguilar-Gaxiola S, Alonso J, Angermeyer MC, Benjet C, Bruffaerts R, de Girolamo G, de Graaf R, Maria Haro J, Kovess-Masfety V, O'Neill S, Posada-Villa J, Sasu C, Scott K, Viana MC, Xavier M** (2013). The prevalence and correlates of binge eating disorder in the World Health Organization World Mental Health Surveys. *Biological Psychiatry* **73**, 904–914.
- Spitzer RL, Stunkard A, Yanovski S, Marcus MD, Wadden T, Wing R, Mitchell J, Hasin D** (1993). Binge eating disorder should be included in DSM- IV: a reply to Fairburn *et al.*'s "The classification of recurrent overeating: the binge eating disorder proposal". *International Journal of Eating Disorders* **13**, 161–169.
- Stunkard AJ, Allison KC** (2003). Binge eating disorder: disorder or marker? *International Journal of Eating Disorders* **34** (Suppl.), S107–S116.
- Trent SA, Moreira ME, Colwell CB, Mehler PS** (2013). ED management of patients with eating disorders. *American Journal of Emergency Medicine* **31**, 859–865.
- Whisman MA, Dementyeva A, Baucom DH, Bulik CM** (2012). Marital functioning and binge eating disorder in married women. *International Journal of Eating Disorders* **45**, 385–389.
- Whiteside U, Chen E, Neighbors C, Hunter D, Lo T, Larimer M** (2007). Difficulties regulating emotions: Do binge eaters have fewer strategies to modulate and tolerate negative affect? *Eating Behaviors* **8**, 162–169.
- Wilfley DE, Wilson GT, Agras WS** (2003). The clinical significance of binge eating disorder. *International Journal of Eating Disorders* **34** (Suppl.), S96–S106.