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Ross D. Crosby: Scholar, Teacher, Mentor, and Friend

Introducing a Virtual Issue Honoring the Contributions of Ross D. Crosby to the Field of Eating Disorders

Editorial

Few individuals have done more to advance the science of eating disorders than Ross D. Crosby, Ph.D., who currently holds the positions of Vice President for Research, Director of Biomedical Statistics at the Neuropsychiatric Research Institute, and Professor in the Department of Psychiatry and Behavioral Science at the University of North Dakota School of Medicine and Health Sciences. The Eating Disorders Research Society (EDRS) has announced a special award in recognition of Dr. Crosby's distinguished contributions to the field, presented to him at the Society's 23rd annual meeting in Leipzig, Germany. This virtual issue of the *International Journal of Eating Disorders* has been assembled to join the EDRS in celebrating Dr. Crosby's impact on the field as a scholar, teacher, mentor, and friend.

Dr. Crosby's scholarly publication record comprises over 400 peer-reviewed manuscripts, a quarter of them published in the *International Journal of Eating Disorders (IJED)*. Though remarkable by itself for the sheer quantity of research papers, Dr. Crosby's publication record is all the more noteworthy for its breadth of topics and rigor of methodology. Dr. Crosby has played a key role in the design and execution of a diverse set of research projects addressing the full range of questions that have begged for scientific inquiry. In keeping with the EDRS' mission to convene an annual meeting where researchers from across the globe present and discuss novel study methods, emerging scientific ideas, and important trends or findings, the virtual issue has been assembled to represent Dr. Crosby's most current IJED publications.

Among Dr. Crosby's signature achievements is the exploration of clinical phenomena in "real time" and in "real world" settings (Ranzenhofer et al., 2016) such as the development and application of ecological momentary assessment (EMA) to the study of eating disorder pathology (see, for example, (Fitzsimmons-Craft et al., 2015; J. Smyth et al., 2001; J. M. Smyth et al., 2009; White et al., 2016).

Therefore, no anthology of his work would be complete without an example of this line of research. For

example, a sample of 118 women with a diagnosis of anorexia nervosa or subthreshold anorexia nervosa completed EMA records for two weeks, reporting on momentary affective experiences and a range of eating behaviors. Findings suggested a clear patterning by time of day of affective and behavioral symptoms, thus suggesting that tailoring intervention strategies to the high-risk time periods for experiencing negative affect or engaging in disordered eating behaviors may improve treatment outcome or reduce risk of relapse (Lavender et al., 2016).

Yet, as the collection of studies included in this virtual issue amply illustrates, EMA studies represent only a subset of Dr. Crosby's research efforts. As the leading journal in the field, *IJED* has published numerous studies exploring the need for and, more recently, the impact of the changes in the eating disorder criteria in the 5th revision of the Diagnostic and Statistical Manual of Mental Disorders (DSM-5) (American Psychiatric Association, 2013) (for recent examples, see (Dakanalis, Colmegna, Riva, & Clerici, 2017; Gianini et al., 2017; Vo, Accurso, Goldschmidt, & Le Grange, 2017). Dr. Crosby has also contributed to this literature (Pinhas et al., 2017; Smith et al., 2017). For example, building upon an international collaboration and drawing upon data from pediatric surveillance systems in Australia, Britain, and Canada, the study performed a latent class analysis (LCA) to determine whether children's eating disorder symptoms would fit DSM-5 diagnoses and whether these categories would be consistent across countries. LCA results identified two distinct classes of restrictive eating in children that did, indeed, resemble DSM-5's diagnostic categories of anorexia nervosa and avoidant/restrictive food intake disorder (ARFID). Of note, these symptom categories were found in each of the three samples, suggesting that (at least in industrialized, affluent nations) anorexia nervosa and ARFID showed little cultural variance (Pinhas et al., 2017).

Dr. Crosby has long contributed to the development of assessment tools, including several studies of the psychometric properties, factorial structure, and clinical utility of the widely used research interview or questionnaire versions of the Eating Disorder Examination, EDE (Grilo, Reas, Hopwood, &

Crosby, 2015; Peterson et al., 2007; Young et al., 2017). This virtual issue features a study examining the suitability of the EDE for measuring eating pathology in Black youth in the United States (US) (Burke et al., 2017), a population group that has not yet been studied extensively despite evidence that, in the US, Black individuals are at comparable risk for developing binge-eating disorder to White individuals (Striegel-Moore et al., 2003; Taylor, Caldwell, Baser, Faison, & Jackson, 2007). The authors combined data from seven pediatric samples of Black and White children ages 6 to 18 years (N = 820). Findings suggest that a seven-item, three-factor version (reflecting Dietary Restraint, Shape/Weight Overvaluation, and Body Dissatisfaction) met criteria for goodness of fit and invariance and captures equivalently the eating pathology of Black and White youth. As has been shown in other studies, regardless of race/ethnicity, girls were more likely to report eating disorder symptoms than were boys; moreover, race moderated the association between adiposity and eating pathology in that at higher adiposity White youth reported greater eating disorder pathology than Black youth of equal adiposity levels (Striegel-Moore et al., 2000; Striegel-Moore, Schreiber, Pike, Wilfley, & Rodin, 1995).

Excess mortality has been well established among individuals with an eating disorder, and death by suicide is one of the causes of premature mortality (Fichter & Quadflieg, 2016). Included in this virtual issue is a study of suicide attempts among family members of a patient sample of 1,870 individuals with an eating disorder (Pisetsky et al., 2017). A recent study examined the 20-year outcome of an inpatient treatment sample of 112 individuals with anorexia nervosa and found that 40% of patients were in remission (Fichter, Quadflieg, Crosby, & Koch, 2017). The large subset of patients who continue to report eating disorder symptoms is a stark reminder of the disorder's severity and the urgent need to improve outcomes. It is, therefore, noteworthy that studies focused on treatment development and exploration of predictors, moderators and mediators of treatment outcome have been another focus of Dr. Crosby's collaborative work in the field and included here are five such studies (Graves et al., 2017; Haynos et al., 2017; Peterson et al., 2017; Tanofsky-Kraff et al., 2016; Watson et al., 2017).

In the category of treatment development, Dr. Crosby contributed to a treatment trial examining the effect of Interpersonal Psychotherapy (IPT) in the treatment of pediatric loss of control eating on objectively measured energy intake at 1-year follow-up in a sample of 88 girls (Tanofsky-Kraff et al., 2016). Results indicated that girls randomized to IPT consumed less energy from snacks than did girls assigned to a Health Education program; however, overall energy intake did not differ across treatment conditions. Another collaboration involved examining predictors and moderators of failure to engage in treatment (i.e., pretreatment attrition) and dropout in a treatment trial comparing where 191 individuals (98% female) with bulimia nervosa were randomized face-to-face cognitive-behavioral therapy (CBT) or Internet-based CBT. Contrary to the authors' expectations that the ease of access would result in lower failure to engage or drop outs in the Internet-delivered CBT condition, the two modalities did not differ in either form of drop out. Predictors of failure to engage were lower perceived treatment credibility, lower expectancy to succeed in treatment, and higher body mass index (BMI). Among patients who initiated treatment, dropout was significantly associated with lower educational attainment, higher novelty seeking, previous CBT experience, and a mismatch between preferred and assigned treatment (Watson et al., 2017). In another treatment study included in this issue, the indirect effects of Integrative Cognitive-Affective Therapy (ICAT-BN) and Cognitive-Behavioral Therapy-Enhanced (CBT-E) on bulimia nervosa (BN) treatment outcome were examined through three hypothesized maintenance variables: emotion regulation, self-directed behavior, and self-discrepancy. Eighty adults with BN were randomized to 21 sessions of ICAT-BN or CBT-E. Results suggested that ICAT-BN and CBT-E are comparable in improvements of these psychological processes among individuals with BN and, in turn, that these improvements are associated with reduction on global eating disorder symptom scores. (Peterson et al., 2017). Haynos and colleagues approached the question of how to predict treatment outcome among individuals with bulimia nervosa by focusing on personality traits. Using statistically derived personality clusters ("under-controlled," "over-controlled," and "low psychopathology")

subtypes in a sample of 80 patients enrolled in the aforementioned treatment trial, personality subtype significantly predicted binge eating and purging frequency at end of treatment, and frequency of binge eating at follow-up. Best outcomes were found for the “over-controlled” group (Haynos et al., 2017).

The final article in this issue reports the findings of a meta-analysis examining inter-relationships between early therapeutic alliance, early symptom improvement, and treatment outcome in psychological therapies for eating disorders. Based on 20 studies results revealed that early symptom improvement was related to subsequent therapeutic alliance quality; in turn, therapeutic alliance ratings also were related to subsequent symptom reduction. The relationship between early therapeutic alliance and treatment outcome was partially mediated by early symptom improvement (Graves et al., 2017).

Even though this issue features only a small subset of Dr. Crosby’s published collaborative work, it illustrates a remarkable breadth of research topics and methodological approaches. Beyond this impressive richness on scope and approach, one cannot help but marvel at Dr. Crosby’s extensive and deep connection with colleagues across the globe. Those who are fortunate to know him appreciate his expertise in research design and statistical methods and his ability to impart his knowledge and skill through patient and compassionate teaching and mentoring. Many if not all his co-authors have participated in one of the many formal methods workshops he has offered at research conferences or have received lengthy and productive consultations. Generous to a fault, Dr. Crosby ends his workshops by displaying his contact information, encouraging the audience to contact him for advice and help. Trainees and seasoned faculty alike know the relief of sending Dr. Crosby a particularly tricky data analysis question and receiving a clear, detailed response with warm email closing of “Statistically Yours.” At conferences, he regularly can be observed offering help or feedback to even the most quantitatively challenged with patience, warmth, and wit. Moreover, he is an extremely generous member of the *IJED* editorial board where in any given year he provides more reviews than most any

other board member. Unfailingly, his critiques are constructive, instructive, and supportive of the author. Because of his gracious disposition, his boundless willingness to support all colleagues regardless of age, experience or academic standing, and his manifold scholarly contributions to the field of eating disorders, Dr. Crosby enjoys the admiration, respect, trust, and friendship of his colleagues.

We present you, Dr. Crosby, this virtual issue with deep gratitude.

Ruth Striegel Weissman (Editor-in-Chief) and Associate Editors Guido K. W. Frank, Kelly L. Klump, Jennifer J. Thomas, Tracey Wade, and Glenn Waller.

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