

Access to evidence-based care for eating disorders during the COVID-19 crisis

Abstract

The COVID-19 pandemic has forced an abrupt change in the delivery of clinical services, including for individuals with an eating disorder. We present this Virtual Issue as a resource for the eating disorder community to showcase research published in the *International Journal of Eating Disorders* that provides information on effective strategies to help address the challenges arising from COVID-19-related disruptions. Articles included describe original research or systematic reviews on obstacles to health services use and strategies to improve access to care; technological tools to provide or enhance interventions; patients' and clinicians' attitudes or perspectives on using digital tools for clinical care; factors influencing therapeutic alliance; and ideas for improving reach and uptake of digital interventions. We hope that readers will find ways to observe and record their own experiences during this global crisis; the experiences of people at risk for developing or exhibiting an eating disorder; and the experiences of those who care for people with an eating disorder. These lived experiences will be invaluable in formulating hypotheses for future studies in service of advancing the understanding of eating disorders and improving interventions and policies for reducing the burden of suffering attributable to eating disorders.

KEYWORDS

access to care, barriers to care, digital interventions, efficacy, e-health, food insecurity, online treatment, telehealth, therapeutic alliance

services, including for individuals with an eating disorder. Moreover, infected patients or their providers need to be quarantined or may be too sick to continue treatment sessions focused on the eating disorder. By disrupting typical modes of service delivery such as in-person office visits with a health-care provider, the COVID-19 pandemic exacerbates the already pervasive problem of unmet treatment needs among individuals with an eating disorder, many of whom do not access care specifically focused on the eating disorder or when they do seek such care, do not receive it (Hart, Granillo, Jorm, & Paxton, 2011; Weissman & Rosselli, 2017).

Although definitive studies of the impact of COVID-19 on mental health are lacking, survey research in China has found that over half of respondents reported moderate to severe adverse impacts of the COVID-19 outbreak on their mental health (Wang et al., 2020) and, based on past major population-wide health crises, experts expect that the current pandemic raises people's level of stress and contributes to increases in anxiety and depression (Torales, O'Higgins, Castaldelli-Maia, & Ventriglio, 2020). Moreover, individuals with pre-existing mental disorders are especially likely to experience a worsening of their mental health status when exposed to disease epidemics (Wang et al., 2020). Psychiatric comorbidity is near ubiquitous among individuals with an eating disorder diagnosis (Udo & Grilo, 2019), and anxiety and depression are the most commonly reported comorbid mental disorders (Fairweather-Schmidt & Wade, 2020; Kambanis et al., 2020; Keski-Rahkonen & Mustelin, 2016; Mohammadi et al., 2020). The current pandemic likely contributes to a worsening of the mental health of individuals with an eating disorder, adding further urgency to ensure that those with an eating disorder receive care, whether they have accessed mental health treatment before or whether they are in ongoing treatment that is being disrupted due to logistical challenges arising from COVID-19 related safety protocols. Such worsening may have many reasons, including the stress-triggering effects of daily news reports of infections and deaths (dubbed "headline stress disorder" by some mental health experts (Dong & Zheng, 2020)); the pervasive media coverage about grocery shopping, threats of food shortages, food safety, and "how to curb emotional eating" (Warren, 2020); or the fact that some pandemic-related online content—such as articles focusing on "how to look your best on a webcam" (Lasky, 2020) and at-home workout challenges (Greenspan, 2020) may inadvertently reinforce eating-disorder cognitions and behaviors, to name just a few. Further, stay-at-home orders and limited food selection in stores may enable individuals to

1 | INTRODUCTION

Containment efforts for the 2019 novel coronavirus disease (COVID-19) pandemic such as "social distancing" policies and stay-at-home orders have forced an abrupt change in the delivery of clinical

rationalize meal-skipping or calorie restriction, thus exacerbating pre-existing restrictive tendencies.

The mission of the *International Journal of Eating Disorders, IJED*, is to advance the scientific knowledge needed for understanding, treating, and preventing eating disorders. In preparing this Virtual Issue, we asked ourselves “what *IJED* content may be especially pertinent to our colleagues who support individuals affected by an eating disorder at this critical time?” In the following sections, we showcase 10 *IJED* articles (see Table 1) that we believe speak to some of the challenges of, or may offer points to consider when, providing evidence-based care in the time of COVID-19. Our brief summaries of

these articles are intended to pique readers' interest by highlighting key findings. We encourage readers to access these articles for a complete account of the studies in the authors' own words.

2 | FOOD INSECURITY AND EATING DISORDERS

COVID-19 is a health crisis, but for many people it also an economic crisis: The global COVID-19 pandemic has impacted all major economic sectors and is expected to cause a recession in most if not all countries that have experienced outbreaks of the disease (World Economic Forum, 2020). The COVID-19 pandemic may exacerbate eating disorder and related mental health symptoms due to increased economic strain and resulting food insecurity (i.e., limited access to food due to economic hardship). To date, the research is correlational and, therefore, does not allow causal interpretation; however, several studies have shown that food insecurity is associated with binge eating and obesity (Becker, Middlemass, Taylor, Johnson, & Gomez, 2017; Rasmusson, Lydecker, Coffino, White, & Grilo, 2018).

Showcased in this Virtual Issue is a study by Lydecker and Grilo entitled “Food insecurity and bulimia nervosa (BN) in the United States” (Lydecker & Grilo, 2019). A survey was posted on Mechanical Turk, offering an English and Spanish language option, inviting respondents to complete six items of the U.S. Department of Agriculture (USDA) Household Food Security Survey (National Center for Health Statistics, 2008) and the Questionnaire on Eating and Weight Patterns-5, QEWP-5 (Yanovski, Marcus, Wadden, & Walsh, 2015) which aligns with the *DSM-5* eating disorder diagnoses. Based on QEWP-5 items, the authors extracted data for three groups based on meeting research criteria for: BN ($N = 78$), binge-eating disorder (BED, $N = 85$), and “healthy weight” (comprised of individuals who reported no or less than weekly binge eating or compensatory behaviors and had a BMI between 18.5 and 24.9; $N = 710$). Across respondents with BN or BED, individuals with very low or low food security reported higher frequencies of binge eating in the 3 months prior to the survey than individuals who were considered food secure. When statistically adjusting for demographic difference, very low or low food security was significantly associated with BN diagnosis. The association between low food security and eating disorder did not differ between BN and BED. As previously reported, respondents with very low or low food security were significantly more likely to meet BED criteria than respondents who indicated that they were food secure (Rasmusson et al., 2018). Prospective studies are needed to examine the temporal relationship between food insecurity and binge eating. One possible explanation is that individuals who lack adequate resources to regularly purchase enough food to meet their nutritional needs undergo cycles of food restriction. These bouts of restriction may increase risk for binge eating via food cravings or the biological effects of starvation. Another, possibly complementary, explanation is that economic strain creates stress, which in turn may promote binge eating. Yet another explanation may be that the cost of binge eating (Crow et al., 2009) or the adverse consequences of experiencing an

TABLE 1 Featured articles

- 1 Lydecker, J. A., & Grilo, C. M. (2019). Food insecurity and bulimia nervosa in the United States. *International Journal of Eating Disorders*, 52(6), 735–739. doi:10.1002/eat.23074
- 2 Arts, H., Lemetyinen, H., & Edge, D. (2019). Readability and quality of online eating disorder information—Are they sufficient? A systematic review evaluating websites on anorexia nervosa using discern and flesh readability. *International Journal of Eating Disorders*. doi:10.1002/eat.23173
- 3 Carter, J. C., Kenny, T. E., Singleton, C., Van Wijk, M., & Heath, O. (2020). Dialectical behavior therapy self-help for binge-eating disorder: A randomized controlled study. *International Journal of Eating Disorders*, 53(3), 451–460. doi:10.1002/eat.23208
- 4 Bauer, S., & Moessner, M. (2013). Harnessing the power of technology for the treatment and prevention of eating disorders. *International Journal of Eating Disorders*, 46(5), 508–515. doi:10.1002/eat.22109
- 5 Barakat, S., Maguire, S., Smith, K. E., Mason, T. B., Crosby, R. D., & Touyz, S. (2019). Evaluating the role of digital intervention design in treatment outcomes and adherence to e-therapy programs for eating disorders: A systematic review and meta-analysis. *International Journal of Eating Disorders*. doi:10.1002/eat.23131
- 6 Linardon, J., Shatte, A., Tepper, H., & Fuller-Tyszkiewicz, M. (2020). A survey study of attitudes toward, and preferences for, e-therapy interventions for eating disorder psychopathology. *International Journal of Eating Disorders*. doi:10.1002/eat.23268
- 7 Neumayr, C., Voderholzer, U., Tregarthen, J., & Schlegl, S. (2019). Improving aftercare with technology for anorexia nervosa after intensive inpatient treatment: A pilot randomized controlled trial with a therapist-guided smartphone app. *International Journal of Eating Disorders*. doi:10.1002/eat.23152
- 8 Lindgreen, P., Clausen, L., & Lomborg, K. (2018). Clinicians' perspective on an app for patient self-monitoring in eating disorder treatment. *International Journal of Eating Disorders*, 51(4), 314–321. doi:10.1002/eat.22833
- 9 Graves, T. A., Tabri, N., Thompson-Brenner, H., Franko, D. L., Eddy, K. T., Bourion-Bedes, S., ... Thomas, J. J. (2017). A meta-analysis of the relation between therapeutic alliance and treatment outcome in eating disorders. *International Journal of Eating Disorders*, 50(4), 323–340. doi:10.1002/eat.22672
- 10 Taylor, C. B., Graham, A. K., Fitzsimmons-Craft, E. E., Sadeh-Sharvit, S., Balantekin, K. N., Flatt, R. E., ... Jacobi, C. (2019). Optimizing eating disorder treatment outcomes for individuals identified via screening: An idea worth researching. *International Journal of Eating Disorders*, 52(11), 1224–1228. doi:10.1002/eat.23169

eating disorder on educational attainment or employment prospects contribute to economic disadvantage, including food insecurity. Moreover, anecdotally, we found that individuals whose families suffer from food shortages may develop a sense of shame about their appetite or guilt over eating out of concern about taking food from others in their family. Such feelings of guilt may be exacerbated for patients who are underweight and are being encouraged by health-care providers to eat more than others in their household to support weight restoration.

The impact of COVID-19 on food security likely varies considerably across the globe. Providers working with individuals experiencing economic hardship should determine whether their client needs food aid or support in managing meal preparation and food allocation across the month within a constrained food budget. Furthermore, even for food-secure individuals, providers should be aware that governmental recommendations (which have been issued in many countries around the world) such as the USDA recommendations to “buy enough food for a week or two at a time” to reduce trips to the grocery store and promote social distancing (United States Food and Drug Administration, 2020) may be stressful for individuals with eating disorders, who will then be confined to their homes surrounded by large quantities of food.

3 | IMPROVING ACCESS TO SELF-CARE RESOURCES

While crises such as COVID-19 during which access to care may be severely disrupted may prompt us to turn to resources requiring no contact or special expertise that are available in a variety of media (books, Websites, etc.), such resources have been recommended as a first step even under “normal,” noncrisis times. We are well advised to consider the extensive literature that has examined the efficacy or value of various self-help resources (Sysko & Walsh, 2008; Yim & Schmidt, 2019). Featured in this Virtual Issue are two articles in this topical area, one focused on the quality of information about anorexia nervosa (AN) available to people searching the Web (Arts, Lemetyinen, & Edge, 2019), and the other describing a recent study of a self-help treatment for BED (Carter, Kenny, Singleton, Van Wijk, & Heath, 2020).

3.1 | Quality of online information

In “Readability and quality of online eating disorder information—Are they sufficient?,” Arts and colleagues (Arts et al., 2019) present an examination of the readability and quality of the information provided by 15 U.K.-based Websites devoted to disseminating health- or mental health information on AN. “Pro-ana” sites (i.e., sites that glorify AN as a positive lifestyle choice and encourage the reader to continue engaging in symptomatic behavior) were excluded from the study. Website texts were systematically analyzed for accuracy and completeness and for readability of the information. Range and accuracy

of topics covered varied considerably, as did readability. The authors noted that a Website maintained by The Royal College of Psychiatrists (n.d.) was most favorably rated with “excellent content,” albeit at a “standard” reading level. The authors concluded that in their sample of U.K.-based Websites, online information about AN “tends to be of ‘fair’ quality and ‘difficult’ readability.” Finding high-quality and easy-to-comprehend information may require a high level of media literacy and patience.

During COVID-19, Web-based information may be an important source of information to individuals with an eating disorder or those who care for or support them. There are indications that time spent online has increased since February 2020 when global news coverage of the pandemic started to accelerate (Irvine, 2020; Merchlinsky, 2020); the public’s increased allocation of time spent online may provide an opportunity to direct attention to online resources for eating disorders. Given the findings reported by Arts and colleagues, providers may be advised to discuss with their patients the online resources their patients access and share with them a list of trusted resources to ensure accuracy of the information and patients’ comprehension of the texts. While the field has given (deserved) attention to media literacy in terms of misleading images or products pertaining to body image or nutrition (e.g., McLean, Wertheim, Masters, & Paxton, 2017; Wade, Wilksch, Paxton, Byrne, & Austin, 2017), further attention to the accuracy of health information by the eating disorders research community and the advocacy community also is warranted.

3.2 | Advances in self-help treatment

Cognitive-behavioral therapy (CBT) has been the dominant approach used in self-help programs and research supports its effectiveness (e.g., Aardoom, Dingemans, Spinhoven, & Van Furth, 2013; Sysko & Walsh, 2008). Carter and colleagues’ (Carter et al., 2020) paper entitled “Dialectical behavior therapy self-help for binge-eating disorder” provides novel data by testing a less-researched intervention, dialectical behavior therapy (DBT), in a self-help format. DBT has been applied to the treatment of eating disorders consistent with theoretical models that conceptualize disordered eating as the consequence of emotion-regulation difficulties (Wallace, Masson, Safer, & von Ranson, 2014). The study featured here compared the effectiveness of two delivery modes of a DBT-based self-help program for individuals with BED (unguided vs. guided) and an “active unguided treatment” control condition consisting of a self-help book on improving self-esteem. Specifically, 74 adults with BED were randomly assigned to unguided DBT, unguided self-esteem, or guided DBT self-help. All groups received a print copy of the self-help program and those in the guided DBT self-help group additionally were offered six 30-min coaching sessions via videoconference call. All three groups showed significant improvements in binge-eating frequency at posttreatment (12 weeks) and 3-month follow-up, with large effect sizes reported. Although the improvements were greatest in the guided DBT group, the differences between the guided and unguided groups were not

statistically significant. This study awaits replication in larger samples; however, the findings are highly promising regarding self-help approaches for the treatment of BED. Furthermore, results suggest that even without guidance, positive behavioral change is possible.

3.3 | Harnessing technology

In many parts of the world, the COVID-19 crisis likely increases (temporarily) the proportion of underserved individuals with mental illness. The World Health Organization's strategic guidance about maintaining essential services in the face of strains on the health system due to the pandemic lists "optimize service platforms" among 10 strategic actions (World Health Organization, 2020). While not focused solely on employing technological tools, implementation recommendations for this strategic action include care delivery via telemedicine and to "reinforce or establish web-based and other telemedicine platforms to provide direct clinical services and provide clinical decision support" (p. 4). In various countries, regulatory bodies, health-care systems, professional organizations, and digital industry companies have responded promptly by: changing policies to remove regulatory or technical barriers, providing guidance, and encouraging clinicians to utilize technology-enhanced interventions (e.g., telehealth via video-based psychotherapy) to ensure safety and treatment continuity for their patients (see for example, (DeAngelis, 2020; Ohannessian, Duong, & Odone, 2020; Sterling, 2020). Moreover, emerging research suggests strong current public demand for telehealth services (Hong, Lawrence, Williams, & Mainous Iii, 2020). We anticipate that resulting from the current crisis may be highly relevant reports on the experiences of therapists and patients that can initiate subsequent research on the question how to best integrate technology-enhanced and conventional care. This has also been pointed out in one of our featured articles (Bauer & Moessner, 2013) as one of the priorities in the field of e-mental health for eating disorders.

3.4 | Overview of technology-enhanced interventions in eating disorders

In "Harnessing the power of technology for the treatment and prevention of eating disorders," Bauer and Moessner describe how technology-enhanced interventions may improve service delivery (Bauer & Moessner, 2013). They review specific approaches that were developed for different areas of the health-care spectrum ranging from prevention, early intervention, self-help, to treatment and relapse prevention. Even though a few years old, the authors' main conclusion still holds today: There is sufficient evidence that e-health interventions may serve as a feasible and effective complement to conventional care that may ultimately enhance the availability, scalability, and accessibility of evidence-based services. The authors also raise four points to bear in mind when considering e-health tools. First, delivery formats designed to overcome physical access barriers (e.g., at a time of social distancing and stay-at-home directives) should not be held to a higher standard than (i.e., judged based on whether they are superior to) face-to-face

interventions. Hence, if the primary goal is to extend reach of a treatment, a noninferiority design is appropriate for evaluating effectiveness of an e-health versus traditional delivery format (e.g., Zerwas et al., 2017). Second, because they do not involve travel to the therapist's office, e-health interventions may afford greater flexibility for treatment techniques such as frequent check-in with patients to gauge progress or respond to setbacks. Third, e-health tools may present opportunities for augmenting in-person treatment via online or mobile phone tools for self-screening or self-monitoring. While during COVID-19 the focus may be centered on extending the reach of clinical services and on maintaining quality of care all other things being equal (i.e., ensuring that services are not inferior to in-person care), it is important not to lose sight of the promise of e-health to also contribute to improvements in care. Finally, Bauer and Moessner wisely remind the reader that vast differences exist across and within countries with regard to access to health care and the modes in which it is delivered. Addressing health-care inequities, including differences in access to digital technology, remains an important aspiration and responsibility.

3.5 | Designing for optimal outcomes

Featured here is a systematic review and meta-analysis by Barakat and colleagues, entitled "Evaluating the role of digital intervention design in treatment outcomes and adherence to therapy programs for eating disorders" (Barakat et al., 2019). Focusing specifically on interventions designed for self-help (unguided or guided) and on studies where the entire treatment was delivered via a digital platform, the authors posed the question of which features of digital interventions would be shown to be associated with outcome of and adherence to treatment. Only studies involving samples with AN, BN, BED, or eating disorders not otherwise specified (EDNOS) were included (i.e., studies of high-risk groups or primary prevention were not considered). Twenty-three studies were included; of these, all included written text, 21 used graphics, 15 featured voice-over or other audio, and 9 studies had video content. Many studies also employed interactive tools such as self-screeners, self-monitoring tools, exercises, and homework assignments. Other features included automated feedback, motivational messages. The authors' overall conclusion was that e-therapies were effective in reducing eating disorder symptoms and comorbid depressive or anxiety symptoms at posttreatment, in individuals with BN or BED. Of the design feature variables, only two were identified as significant moderators of outcome. Specifically, treatments employing multimedia channels (e.g., text, graphics, and videos) were found to produce superior outcomes compared to control treatments. In contrast, providing feedback was associated with better outcome in the control group. The authors attributed the latter finding to possible methodological flaws in measuring the degree of personalization of feedback received in the e-therapy condition. The authors further noted that the studies available for their review did not utilize many of the now available advanced technological features such as wearable sensors, global positioning system tracking, voice analysis, or data visualization.

Future studies of interventions that include a wider array of design features are needed to reveal the full potential of well-designed e-health interventions.

4 | PATIENTS' AND THERAPISTS' PERSPECTIVES ON TECHNOLOGY TOOLS

Evidence suggests that mobile applications (“apps”) to record health behaviors including tracking eating, exercise, or sleep enjoy wide-spread use by consumers, yet the preventive or therapeutic value in changing behavior when use is disconnected from clinical care is still a matter of debate (McKay et al., 2018; Milne-Ives, Lam, De Cock, Van Velthoven, & Meinert, 2020). Experts of technology-based mental health tools emphasize the importance of adopting a user-centric approach, lest the tools remain unused (Taylor et al., 2019). Featured next are three articles providing data about patients' (Linardon, Shatte, Tepper, & Fuller-Tyszkiewicz, 2020; Neumayr, Voderholzer, Tregarthen, & Schlegl, 2019) perspectives on and examining clinicians' (Lindgreen, Clausen, & Lomborg, 2018) experiences with technology tools used in the treatment of eating disorders.

4.1 | Patients' views about e-health tools

In the featured study “A survey study of attitudes toward, and preferences for, e-therapy interventions for eating disorder psychopathology,” Linardon and colleagues surveyed 1,488 participants spanning the full range of eating disorder pathology (from none to highly symptomatic) (Linardon et al., 2020) with detailed questions about their attitudes and thoughts about e-therapy. Most participants held favorable attitudes toward e-therapy, as reflected in most respondents endorsing insurance payments for such therapies and expressing optimism about the benefits of e-therapy in improving care access, scalability, and cost-effectiveness. Although only a subset of respondents expressed preference of e-therapy over in-person therapy, a majority indicated willingness to engage in e-therapy. Participants who reported high levels of self-stigma were more likely to endorse preference for e-therapy than were participants lower in self-stigma. These findings suggest that e-therapy may be a viable strategy for overcoming people's stigma-related concerns about accessing therapy; they also suggest that e-therapy may be acceptable to a majority of individuals in need of treatment but without access to in-person sessions. Due to COVID-19-related social distancing and travel restriction policies, likely many patients in ongoing treatment and their clinicians have been making the transition from in-person treatment sessions to some form of e-health (e.g., video-calls). The consequences of this natural experiment remain to be studied.

4.2 | Using a mobile app to support aftercare

Neumayr and colleagues conducted a pilot study to test feasibility, acceptability, and preliminary effectiveness of implementing a

therapist-guided use of an app in the aftercare of individuals with AN who had undergone hospital treatment (Neumayr et al., 2019). The study, “Improving aftercare with technology for anorexia nervosa after intensive inpatient treatment,” randomly assigned 40 female inpatients to “aftercare as usual” or the experimental condition involving use of the German version of the smartphone app *Recovery Record* under therapists' guidance for 8 weeks. Among the app-based group, the authors reported high levels of adherence, acceptability of various app features, and acceptance of the guided app aftercare intervention. Detailed ratings on features of the app suggest that many patients found the app useful and that using the app aided in their recovery. Of note, the feature patients using the app rated as most helpful was being able to connect with a therapist. The authors discussed that, being a pilot, the sample size was too small to test whether the experimental condition was superior to aftercare as usual. Nonetheless, the favorable patient ratings suggest that blending aftercare with an e-health tool may afford a promising strategy for maintaining treatment gains in patients recovering from an eating disorder severe enough to have warranted hospitalization.

4.3 | Clinicians' views on using an online tool to track behavioral change

Self-monitoring of eating behavior and its emotional, cognitive, or situational precipitants or consequences is a core feature of CBT. Various applications have been developed to help patients accomplish self-monitoring via mobile phone or online entry (Bauer & Moessner, 2013). In their paper entitled “Clinicians' perspective on an app for patient self-monitoring in eating disorder treatment,” Lindgreen and colleagues describe a qualitative study of clinicians' experience with integrating *Recovery Record* into their practice with eating disorder patients (Lindgreen et al., 2018). The clinicians recognized the value in being able to monitor patients' self-monitoring records. Yet, they also expressed a concern common to the ubiquity of online technology in our “always on” culture (Macphail, 2020), namely that the instant availability of online data may create patient expectations that clinicians access this information around the clock. Another theme identified in the study was that the app would get in the way of the therapeutic relationship. Whether these clinician concerns are specific to the app used in this study or whether they apply more broadly to incorporating mobile apps into clinical care requires further study. Our next section addresses the matter of therapeutic alliance.

5 | FACTORS AFFECTING THERAPEUTIC ALLIANCE

Abruptly moving in-person treatments online due to stay-at-home orders may lead patients and clinicians alike to worry that the therapeutic alliance may suffer or fail to develop. Although little research has been done on the therapeutic alliance in telemedicine for eating disorders, one study comparing two versions of CBT for BN found

that while therapists endorsed a stronger therapeutic alliance in the face-to-face condition, patient-reported alliance did not differ for in-person versus telemedicine delivery (Ertelt et al., 2011). Importantly, the outcomes did not differ based on delivery mode (Mitchell et al., 2008). These findings suggest that, for patients, the content of therapy may be more important than the mode of delivery.

Indeed, as demonstrated in a recent meta-analysis of 20 studies, *symptom improvement itself* is a robust predictor of therapeutic alliance. In a paper featured in the current Virtual Issue entitled “A meta-analysis of the relation between therapeutic alliance and treatment outcome in eating disorders” (Graves et al., 2017), early symptom improvement was positively associated with later therapeutic alliance. Moreover, early therapeutic alliance was even less associated with later symptom change in behavioral versus nonbehavioral therapies. This suggests that the importance of therapeutic alliances as an outcome predictor may vary by therapeutic method. Because the studies in the Graves et al. meta-analysis featured in-person treatment delivery, more research is needed regarding the question of whether therapeutic alliance is adversely affected in an e-therapy or telehealth context. Whether dropout from therapy is a behavioral expression of insufficient therapeutic alliance (and there may be several other reasons for dropping out) in eating disorders requires further study. A recent review of CBT studies found higher dropout when delivery was online versus in person (Linardon, Hindle, & Brennan, 2018). Strategies to retain users of e-health interventions include attention to and monitoring of patients' adherence to key treatment elements such as self-monitoring (Puls et al., 2019). The latter two reviews and the findings reported by Graves and colleagues suggest that providers who have concerns about potential ruptures to the therapeutic alliance when switching from in-person to online delivery may be reassured to know that maintaining their focus on patients' symptom change will help achieve positive outcomes.

6 | IMPROVING REACH, UPTAKE, AND ENGAGEMENT

Like all featured articles in this Virtual Issue, “Optimizing eating disorder treatment outcomes for individuals identified via screening” (Taylor et al., 2019) was published before the COVID-19 outbreak. However, Taylor and colleagues describe three concepts that warrant attention as we strive to provide technology-supported care during the current pandemic: reach, uptake, and persistence. Just because the tools for broad dissemination of an intervention may be available in principle (e.g., a provider and her patient both may be able to access a telehealth tool or a mobile app) does not mean that, in practice, the tool will reach the target person. In the current pandemic, reaching people with an eating disorder may be even more challenging than under noncrisis circumstances, because so much of the public's attention (understandably) is focused on managing COVID-19. Some providers may even be redeployed to COVID-19-related clinical care and therefore unable to continue seeing their ongoing individuals with eating disorders. Uptake refers to the target user's initial use of an

offered treatment: it addresses the question of whether the person indeed logs on to an online resource, participates in the newly changed delivery format, or tries the app. Third, engagement refers to patients continued participation in or persistence with the treatment or tool. From a public health perspective, a treatment or delivery format that does not reach, is not being initiated, or is not used as intended does not work (Taylor et al., in press). For each of these three indicators of the effectiveness of an intervention, we encourage the field to consider what steps will be successful during this current time of “treatment not as usual.” While rigorous research such as outlined by Taylor and colleagues is needed, careful observations based on service providers' current experience will help shape hypotheses for studies designed to test effective strategies to improve reach and uptake of and engagement with treatments for eating disorders.

7 | FINAL THOUGHTS

While far from exhaustive, we have noted several impacts the COVID-19 pandemic may have on the lives of and care for individuals at risk for or experiencing an eating disorder. For this Virtual Issue, we have selected, again far from exhaustively, a few studies from the *IJED* archives that we hope will help inform readers' decisions as clinicians, researchers, policy makers, consumers, or carers. Inevitably, a Virtual Issue is short limited to a handful of articles and it is backward looking: it selects already published content. For example, among the many important topics not explored are the question of whether individuals with an eating disorder face greater risks for COVID-19 infection or complications due to eating disorder-related medical comorbidities (Aulinas et al., 2020; Striegel, Bedrosian, Wang, & Schwartz, 2012; Thornton et al., 2017; Udo & Grilo, 2019), and how their COVID-19-care may need to be adjusted in light of their eating psychopathology.

We hope that readers will find ways to observe and record in real time their own thoughts and experiences during this global crisis; the experiences of people at risk for developing an eating disorder or of those exhibiting an eating disorder; and the experiences of those who care about and for people with an eating disorder. These lived experiences will be invaluable in formulating hypotheses for future studies designed to apply the lessons learned and test novel tools or interventions in service of advancing the understanding of eating disorders and improving interventions and policies for reducing the burden of suffering attributable to eating disorders. Together, we can build the evidence base needed to mitigate the adverse consequences of COVID-19 and to learn from this crisis for the benefit of all.

Ruth S. Weissman PhD¹ 

Stephanie Bauer PhD²

Jennifer J. Thomas PhD^{3,4} 

¹Department of Psychology, Wesleyan University, Middletown, Connecticut

²Center for Psychotherapy Research, University Hospital Heidelberg, Heidelberg, Germany

³Eating Disorders Clinical and Research Program, Massachusetts General Hospital, Boston, Massachusetts

⁴Department of Psychiatry, Harvard Medical School, Boston, Massachusetts

Correspondence

Ruth S. Weissman, Department of Psychology, Wesleyan University, 207 High Street, Middletown, CT.
Email: rweissman@wesleyan.edu

ORCID

Ruth S. Weissman  <https://orcid.org/0000-0001-6121-4641>

Jennifer J. Thomas  <https://orcid.org/0000-0003-2601-581X>

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