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Eating disorders during the COVID-19 pandemic and quarantine: an overview of risks and recommendations for treatment and early intervention

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Abstract

Individuals with eating disorders (EDs) are at significant risk for increases in symptomatology and diminished treatment access during the COVID-19 pandemic. Environmental precautions to limit coronavirus spread have affected food availability and access to healthy coping mechanisms, and have contributed to weight-stigmatizing social media messages that may be uniquely harmful to those experiencing EDs. Additionally, changes in socialization and routine, stress, and experiences of trauma that are being experienced globally may be particularly deleterious to ED risk and recovery. This paper presents a brief review of the pertinent literature related to the risk of EDs in the context of COVID-19 and offers suggestions for modifying intervention efforts to accommodate the unique challenges individuals with EDs and providers may be experiencing in light of the ongoing public health crisis.

The COVID-19 pandemic is a grave public health threat for which no treatment or vaccine currently exists. Initial projections of the overwhelming demands on healthcare resources and ensuing disease-related deaths have prompted state and federal officials to enact public health measures to decrease the rapid spread of interpersonal transmission (World Health Organization, 2020). The pandemic and subsequent efforts to reduce its spread have upended daily life, promoting widespread anxiety, stress, and uncertainty (for further discussion see Wang et al., 2020). Notably, groups at risk for mental health concerns, such as eating disorders (EDs), may be disproportionately impacted during this crisis (Reger et al., 2020), with initial data from COVID-related restrictions in Spain describing more than one in three

individuals (12/32) with an ED reporting worsening symptomatology (Fernández-Aranda et al., 2020). Approximately 3.5–6.5% of women and 3–3.5% of men have a lifetime ED (Allen et al., 2013; Hudson et al., 2007; Raevuori et al., 2014) and from a diathesis-stress perspective, the present circumstances risk precipitating the onset of EDs for many more individuals. The risk of worsening ED symptomatology during the time of COVID-19 has not gone unnoticed, with leaders in the field providing a call to action for research on the impact of the pandemic (Lacey & Hay, 2020) and a special issue on online treatment for EDs (Weissman et al., 2020). In the current paper, we intend to expand upon these efforts by highlighting situational factors associated with the pandemic that may further exacerbate or precipitate ED psychopathology and suggesting avenues for timely intervention. Given that there is no precedent for this pandemic and/or research guidelines that will speak directly to evidence-based methods for coping with this particular threat, we draw upon existing work from other related areas of research. To that end, we offer 1) a brief overview of factors that may increase ED risk during and following the COVID-19 pandemic; and 2) a clinically useful overview of evidence-informed strategies and resources that may aid in addressing these risk factors. Despite the potential short-term mitigation of interpersonal social triggers of disordered eating and negative body image (e.g., reduced opportunities for body-based social comparisons, less exposure to sexual harassment and objectification; see Calogero, 2004; Saunders et al., 2019), in this paper, we specifically focus on the potential risks associated with this outbreak. We encourage future researchers to explore potential benefits once the immediate threat of this pandemic has lessened.

Eating-disorder specific risk factors in light of the COVID-19 pandemic

Food access

In 2019, an estimated two billion individuals worldwide experienced moderate or severe food insecurity (i.e., scarcity, reduced access to, or difficulty acquiring safe, nutritionally adequate foods) (Food and Agriculture Organization of the United Nations, 2019), and early estimates from Western countries suggest these numbers have risen exponentially during the initial weeks of the COVID-19 pandemic (Loopstra, 2020). Individuals and families who may not have previously experienced food insecurity are now faced with limited windows in which to shop for groceries as well as empty shelves and long lines from panicked shoppers stocking up their “quarantine pantry.” Prior research on food insecurity suggests this contributes to a “feast or famine” pattern, with alternating periods of food abundance, hoarding, and overconsumption with compensatory behaviors, followed by food scarcity, skipping meals, and dietary restraint (Bove & Olson, 2006).

Although food insecurity has been associated with a range of deleterious psychological sequelae, this factor represents a unique risk factor for ED psychopathology, including binge eating, fasting, and compensatory behaviors (Becker et al., 2017; Lydecker & Grilo, 2019; Rasmussen et al., 2019). For example, a recent study by Lydecker and Grilo (2019) reported that individuals experiencing high and very high levels of food insecurity were more likely to meet the criteria for binge-eating disorder and bulimia nervosa. As documented in the Minnesota Starvation Experiment, even in individuals without prior ED psychopathology, food insecurity and restriction may be associated with increases in food preoccupation, rigid

eating rituals, binge eating, and distorted body image (Keys et al., 1950). Reduced food access is likely to disproportionately impact those from low socioeconomic backgrounds, and as the economic crisis grows, individuals reliant on food banks may have limited access to nutrition with increased demand on these services. Further, individuals with avoidant/restrictive food intake disorder (ARFID), who already experience difficulty achieving adequate dietary variety and volume, may experience reduced access to “safe” foods (e.g., specific types or brands of food), potentially leading to further malnutrition.

Media and media messaging

Lack of access to in-person social interactions may also lead to an increase in media consumption and use of social media sites. Exposure to stressful media coverage of major disasters is associated with heightened psychological distress, including disordered eating attitudes, even for those not directly affected by the tragedy or even living in the same country (Pfefferbaum et al., 2014; Rodgers et al., 2012; Vance et al., 2018). Given the rampant spread of sensationalized reporting and misinformation about the coronavirus (Mian & Khan, 2020) as well as worldwide media coverage of the pandemic, individuals may be exposed to disaster-related media, even without deliberately seeking it out.

Unsurprisingly, there has been a sharp uptick in social media usage since the onset of the coronavirus crisis (Koeze & Popper, 2020), which prior studies have linked with greater ED symptomatology. Experimental research has demonstrated that exposure to thin/athletic ideals and media messages is associated with greater disordered eating attitudes and behaviors for individuals across the gender spectrum (Agliata & Tantleff-Dunn, 2004; Hawkins et al., 2004), and cross-sectional research suggests strong links between various types of body-centric media (e.g., sexualizing media content, “thinspiration” and “fitspiration”) and negative attitudes towards one’s own body (Karsay et al., 2017; Sabik et al., 2020; Slater et al., 2017).

Even in non-pandemic times, behaviors associated with EDs (e.g., dieting and rigid exercise) are often glorified and praised, but during the COVID-19 pandemic, we have observed a substantial uptick in fatphobic media messaging surrounding diet and exercise. For instance, the media has sparked fear of weight gain by alluding to the possibility of gaining the “Quarantine 15” (Robinson, 2020), reminiscent of the “Freshman 15” (Smith-Jackson & Reel, 2012), phrases used to shed light on the possibility of gaining 15 pounds during major life events. Fear mongering about weight gain during critical periods can be stressful for anyone (Smith-Jackson & Reel, 2012) but may pose a unique challenge for those struggling with an ED (Graham & Jones, 2002). Additionally, initial reports indicating that higher body weights were associated with a higher risk for hospitalization and ventilator usage for individuals infected with COVID-19 (Petrilli et al., 2020) and discussions related to triaging care based on body weight (Baker & Fink, 2020; Rabin, 2020) may lead to increased restriction and other unhealthy weight control behaviors in higher weight individuals with EDs.

Exercise limitations

Moderate exercise is universally touted as a positive health behavior for physical and psychological well-being, with CDC guidelines advocating for 150 minutes of physical activity per week (U.S. Department of Health and Human Services, 2008). With fitness centers closed en masse and outdoor physical activity complicated by physical distancing efforts, those with heightened weight and shape concerns may experience increased distress. Additionally, it is estimated that between 20% and 81% of individuals with an eating disorder engage in dysfunctional exercise, with rates highest in those diagnosed with anorexia nervosa (Dalle Grave et al., 2008). Depriving this group of individuals of compulsive exercise as a tool for negative emotion regulation may increase the use of alternative coping methods (helpful or unhelpful) or contribute to individuals adopting other unhealthy compensatory behaviors, such as greater caloric restriction or other methods of purging (Dalle Grave et al., 2008).

Restricted healthcare access

Individuals with EDs who are medically compromised or unstable are typically monitored by frequent medical visits to check vitals signs and labs, or referred to higher levels of care within the medical system (L. K. Anderson et al., 2017). Due to the depletion of healthcare resources from COVID-19 treatment, combined with the risk of contracting COVID-19 from being physically present in a medical setting, healthcare systems are especially taxed and treatment for individuals with EDs may suffer. Physical distancing restrictions may serve as a reason for avoiding mental healthcare services for individuals in the early stages of change. While telehealth check-ups represent an alternative approach, this method restricts the capacity to monitor weight change, vital signs, and other key physiological assessments. Further, practicing outside state line regulations in the U.S. may impede the continuity and integration of ED services.

Broader risk factors in light of the COVID-19 pandemic

Stressful life events

The onset of the COVID-19 crisis has been a stressful experience for everyone, regardless of health status or life situation. Psychological distress is a common feature of infectious disease outbreaks (Vyas et al., 2016). An ongoing pandemic results in an obvious rise in health-related distress and the ensuing economic consequences of the pandemic have resulted in increased financial, social, and occupational stressors worldwide. Stressful life events have been identified as predictive of ED onset, maintenance, and relapse (Degortes et al., 2014; Grilo et al., 2012; Pike et al., 2006). Given the rising death toll associated with COVID-19, many individuals may also lose friends or loved ones to the condition, and grief and bereavement can be sensitive times for ED development and relapse (Berge et al., 2012).

Workplaces can serve as complicated sites for ED recovery in general (Siegel & Sawyer, 2019a, 2019b); however, there may be increased psychological risk for essential workers (both in the healthcare and general workforce) during a pandemic (Maunder et al., 2006). Many healthcare workers must isolate from their families and may experience increased stigma and ostracism. For example, research conducted during the 2003 SARS

outbreak found that healthcare workers reported substantial burnout and posttraumatic stress (Mauder et al., 2006). Further, those who contract COVID-19 represent a high-risk group for ED development and relapse, with data suggesting individuals recovering from SARS experienced heightened psychological distress and eating dysregulation (Mihashi et al., 2009).

Anxiety

Because COVID-19 presents an unprecedented public health threat, many will experience increases in anxiety in response to widespread uncertainty. As individuals with EDs commonly report elevated intolerance of uncertainty (see Brown et al., 2017; Kesby et al., 2017 for reviews), they may be particularly vulnerable to increases in distress secondary to uncertainty. Further, significant changes in routines that could lead to changes in body shape or weight may heighten ED-specific concerns anxiety in this population. Research suggests ED behaviors may function to reduce anxiety and distress associated with uncertain situations or outcomes (for example, restricting to reduce the risk of potential weight gain; Brown et al., 2017; Kesby et al., 2017). As such, both generalized uncertainty and anxiety associated with the pandemic, as well as weight- and shape-specific uncertainty or changes, may contribute to increased symptomatology.

As public health messaging encourages increased attendance to potential physical symptoms of COVID-19 (such as shortness of breath, fever, muscle aches, amongst others), individuals may experience hypervigilance toward internal body states, heightened interoceptive awareness, and related anxiety sensitivity (e.g., fear and distress associated with experiencing anxiety-related cognitions and sensations). Both interoceptive awareness and anxiety sensitivity have been implicated as key factors that may amplify anxiety levels and subsequent ED symptoms (Anestis et al., 2008; Fulton et al., 2012; Smits et al., 2019).

Other contextual factors (see “Stressful Life Events”) may similarly contribute to increased anxiety, where individuals respond to increased stress in the home and/or workplace with greater engagement in maladaptive coping mechanisms. Within ED populations, this may include increased frequency of ED cognitions (such as rumination, preoccupation with weight or shape) and behaviors (restriction, compulsive exercise, binge/loss-of-control eating episodes, purging behaviors). Conversely, however, some individuals with heightened social anxiety may experience a decrease in daily anxiety levels due to lockdown restrictions. This may contribute to some individuals feeling better equipped to manage their ED symptomatology in the present environment.

Social isolation and decreased social support

One of the primary challenges to general mental health and EDs during COVID-19 is the need for physical distancing and, in some cases, self-isolation. To mitigate the spread of COVID-19, the Center for Disease Control and World Health Organization has recommended practicing “social distancing” (henceforth referred to as physical distancing) by avoiding contact with people outside of the home and maintaining a six-foot distance between oneself and others (Niu & Xu, 2020). However, physical distancing also increases the likelihood of experiencing isolation and loneliness. Loneliness and isolation are risk

factors for psychological issues broadly (Holt-Lunstad et al., 2015) as well as in the development and maintenance of EDs (Levine, 2011).

While social support has been shown to buffer the impact of various traumas during previous infectious disease outbreaks (for example, Main et al., 2011), this may be exceedingly challenging for individuals living alone during the pandemic. Isolation may pose a distinct challenge for individuals managing EDs, as consistent data support a critical role of social support in ED recovery (Linville et al., 2012; Sohlberg et al., 1992). The impact of isolation may be more severe for individuals with EDs who are also members of minority populations. For example, members of the LGBTQIA+ community may be particularly impacted because social support is a critical component of positive psychological functioning in this population (Klein, 2017). For those isolating in homes where their sexual or gender identities are not known-about or accepted, lack of access to social support may markedly increase the risks associated with ED symptoms (Watson et al., 2016).

Trauma and abuse

Childhood abuse, exposure to traumatic events, and posttraumatic stress disorder are strongly associated with ED psychopathology and have been identified as likely risk factors for ED onset and maintenance (Hazzard et al., 2019; Trottier & MacDonald, 2017). There has been an alarming surge in domestic violence and child abuse during the COVID-19 pandemic as individuals' access to domestic violence and abuse resources, methods for reporting, and sources of refuge have been limited by physical distancing measures (Galea et al., 2020). This is significant for both women and men with EDs, as these groups commonly report high rates of intimate partner and domestic violence (Bundock et al., 2013) and may be at significant risk developing acute stress disorder and posttraumatic stress disorder during and following the COVID-19 pandemic. Additionally, children who report exposure to marital conflict are more likely to engage in a range of disordered eating behaviors including restrained eating, emotional eating, and externally driven eating (Bi et al., 2018).

Further, Black, Indigenous, and people of color may be simultaneously be enduring a pandemic of racism while living through the COVID-19 pandemic. Notably, hate crimes against Asian Americans have increased since the pandemic intensified in the United States (Tessler et al., 2020), and experiences of racial discrimination and race-based teasing have been linked to disordered eating symptomology among Asian American women (Cheng et al., 2017). Similarly, while not directly associated with the COVID-19 outbreak, the timing of the pandemic has coincided with a new wave of the Black Lives Matter movement to protest against police brutality toward Black people. Trauma may increase the likelihood of binge eating among Black women, particularly among those who feel they must demonstrate strength and resilience during times of hardship (Harrington et al., 2010). While there is no published research examining the effect of witnessing, experiencing, or fearing police brutality in relation to disordered eating symptoms, we hypothesize that the impact of increased attention to systemic, institutional, and interpersonal racism may have an adverse impact on the psychological well-being of Black, Indigenous, and people of color.

Perfectionistic expectations—Productivity with tangible, measurable outcomes is highly valued in today’s society and is often defined by achievements related to education, workplace, and social contributions (e.g., Johnson & Deshpande, 2000). Increased productivity messaging may be uniquely problematic for individuals with EDs who are more likely to exhibit a high drive for achievement and perfectionism (e.g., Bardone-Cone et al., 2007). Productivity pressure associated with increased time at home and blurred work-life boundaries may both reinforce these traits and promote workaholism, at the expense of adaptive coping (Lorenz, 2020). Specific to the ED domain, productivity related to “self-improvement” (for example, dieting, exercise, and weight loss) often receives positive social reinforcement, despite negative long-term consequences (Lieberman et al., 2001; Stice, 1998). Altogether, increased emphasis on productivity and self-improvement in various life domains may increase ED risk both directly through the social promotion of ED behaviors and indirectly through increasing achievement-related stress.

Gender role stress—As well as external drivers of stress, individuals may also be triggered by threats to normative gender roles during stressful events. Considering that masculine gender roles commonly value self-reliance, pursuit of status, and importance of work/financial success, COVID-related adverse life events may be specifically challenging for men who have internalized masculine ideals. During the SARS outbreak, men reported lower life satisfaction and were more likely to develop a psychological disorder, compared to women in similar situations (Main et al., 2011; Mihashi et al., 2009). These findings may also extend to disordered eating, as the masculinity hypothesis of disordered eating proposes that internalized masculinity contributes to muscularity-oriented disordered eating and exercise or even muscle dysmorphia (Frederick et al., 2017; Griffiths et al., 2015). Similarly, women encouraged to increasingly conform to feminine norms during this stressful period may be drawn toward the thin ideal, resulting in increased eating disordered attitudes and behaviors (Mahalik et al., 2005; Mensinger et al., 2007). And with increased pressure to fulfill traditionally feminine duties and communal roles, while potentially working from home and homeschooling children (Graves, 2020), these heightened and competing demands may also be to the detriment of perfectionistic tendencies and productivity during this time (also see “Perfectionistic Expectations”).

Pertinent interventions during the COVID-19 pandemic

Although the current pandemic is unprecedented in its scope, we present several methods of adapting previously examined interventions to address the concerns highlighted above.

Accessible treatment options

Telehealth—Individuals currently struggling with EDs, or at risk for relapse, may benefit from empirically supported interventions delivered via web-conferencing or telephone. Importantly, there have been several large-scale trials of remotely delivered treatment demonstrating similar effectiveness to face-to-face treatments which may prove relevant during COVID-19 restrictions (Zerwas et al., 2017; De Zwaan et al., 2017). Remotely delivered treatment mimics the structure, session content, and dose of in-person interventions (Bashshur et al., 2016). Cognitive-behavioral treatment, family-based

treatment, and parent-based prevention have shown efficacy in research trials, including successful adaptations of key tenets of the interventions such as weight monitoring (for individuals requiring weight restoration), family meals, and exposure exercises (K. E. Anderson et al., 2017; Gibbs et al., 2019; Mitchell et al., 2009; Zerwas et al., 2017; De Zwaan et al., 2017). Further, participant satisfaction for these interventions appears to be comparable to that of traditionally delivered treatment (Berger, 2017). Indeed, following the shelter-at-place and social distancing orders, many healthcare institutions and treatment centers have very quickly and successfully implemented telehealth via phone or video and have received insurance reimbursement for these encounters (Datta et al., 2020; Lau et al., 2020). Telehealth visits during quarantine continue engaging patients in regular care, thereby making them a truly viable option for many patients in need of ongoing therapy and medical treatment (Kannarkat et al., 2020).

Additionally, we note that as clinicians are becoming more comfortable with connecting online, there has likely been an increase in remote collaboration and learning. For example, since the beginning of the pandemic clinicians has collaboratively worked to recommend adaptations to eating disorder treatment protocols such as family-based treatment (Matheson et al., 2020) and CBT-e (Waller et al., 2020).

Guided self-help—Most individuals with EDs do not seek professional care for their symptoms due to barriers such as access, cost, stigma, and scarcity of expert training, thereby underscoring the importance of specialized self-help interventions for EDs (Sadeh-Sharvit, 2019). Additionally, vulnerable populations report the need for greater support during the COVID-19 pandemic (Yang et al., 2020). While different factors may contribute to reasons underlying a lack of access to care, robust data support the usefulness of self-help for individuals with EDs (Melioli et al., 2016), including fully digital and book-based programs (Hildebrandt et al., 2017). Self-help can be unguided, completed independently, or guided, i.e., enhanced by a facilitator (a therapist or a pre-licensed provider) who helps program participants to implement and adapt the curriculum to their lives (Wilson & Zandberg, 2012). Self-help for EDs has been successfully investigated for individuals with anorexia nervosa, bulimia nervosa, and binge-eating disorder using interventions informed by family-based treatment, cognitive behavioral therapy, and dialectical behavior therapy, respectively (Fairburn, 2013; Kenny et al., 2019; Lock et al., 2017). The majority of the specific interventions informing self-help approaches (such as self-monitoring, psychoeducation, urge surfing, and problem-solving) are feasible to implement while adhering to physical distancing requirements.

Email and text messages—The recent pandemic occurred when email and text messages for patient–provider communication have become the standard of care in many health systems, with many clinicians already exchanging email and text messages with their clients (Schueller et al., 2016). When utilized appropriately, emails and texts complement clinical practice, streamline communication, support self-monitoring and self-regulation, and even encourage the expression of emotionally charged content (Taylor et al., in press). At times of limited social support, individuals with EDs who are currently receiving treatment may benefit from these additional methods of connection with their therapist.

Digital tools for self-monitoring—Increasing access to smartphones has resulted in a proliferation of mental health-based applications (apps) and digital tools (Anthes, 2016), some of which could be useful for individuals currently struggling with EDs. Existing research suggests that these apps may be useful both as a tool within a larger, formal intervention plan (i.e., as one component of a comprehensive treatment plan) as well as a stand-alone tool for self-monitoring (Juarascio et al., 2015). A number of freely available apps promote effective, recovery-focused self-monitoring of intake, behaviors, and use of coping skills, representing accessible, useful tools with or without treatment (Tregarthen et al., 2019). It is important to note, however, that not all apps are useful or appropriate for self-monitoring (McCaig et al., 2019), so clinicians should guide individuals with EDs to recovery-centric apps when appropriate (e.g., Recovery Record).

Online support groups—Several ED treatment centers are providing online meal support, virtual group therapy, and online carer groups to the general public, regardless of an individual’s treatment status. To our knowledge, there are no empirical data on the usefulness of this approach; however, some research suggests that those at home with carers or family members who support persons in recovery could benefit from increased meal support in-vivo, consistent with recommendations in existing evidence-based frameworks (e.g., Grover et al., 2011). Additionally, peer support groups for individuals with ED thoughts and behaviors are available online. Although the evidence-base for groups that are not monitored by ED professionals is unknown, initial data have supported a link between peer support/mentorship programs and recovery (for examples see Linville et al., 2012; Ramjan et al., 2018, 2017; Ranzenhofer et al., 2020), as well as the usefulness for social support in recovery via online forums (e.g., Kendal et al., 2017).

Targeting specific eating and food-related challenges

Physical distancing efforts have led to changes in food availability, food storage behaviors (such as bulk purchasing, limited access to preferred foods, or the need to buy more shelf-stable items than fresh produce or dairy), and reduced availability of prepared foods, due to restaurants offering reduced hours for takeaway and restaurant closures. Although this may be a common experience across the general population, the need to store larger quantities of food and prepare the majority of food at home may present a distinct challenge for individuals with EDs who are working to regulate their eating and are prone to the cycle of restriction and binge eating (particular those with bulimia nervosa and binge-eating disorder as mentioned earlier). Treatment providers should work in-session to develop stimulus control strategies related to food shopping, storage, and preparation. These strategies may include identifying shelf-stable products and a wider range of foods that can be incorporated into meal planning as well as focusing on challenging eating-disorder thoughts related to “good”/“bad” foods.

Common interventions from ED protocols such as establishing regular eating behaviors will likely also apply during this time, such as problem-solving efforts to structure daily activities and including planning breaks for meals and snacks. Further, it may be important to practice awareness of internal hunger and satiety cues, adjusting to increased time spent at home and near the kitchen, as well as heightened environmental stress (Bi et al., 2018), which

can lead to an increase in external food-related cues. Providers should revisit the coping plans to ensure that a variety of coping skills remain available, considering the limitations of physical distancing measures. Treatment sessions may include brainstorming new skills to use in situations that are high risk for restriction, binge eating, or purging. Encouraging self-compassion skills and stressing body functionality may be especially important and useful, given that self-compassion has been shown to buffer the links between distressing experiences and body-related attitudes (Avella et al., 2016; Siegel et al., 2020; Tylka et al., 2015).

General recommendations

Decades of research in the field of positive psychology may provide further strategies for buffering the effects of stress and promoting resilience more broadly (Henry, 2007). Positive psychology interventions are heterogeneous in their composition; however, they share the broad goal of increasing positive affect, meaning-based activities, and thinking styles associated with positive outcomes (Tylka, 2011).

Media consumption strategies

For individuals experiencing distress stemming from media consumption (either related to COVID-19 or body image-specific media consumption), there are several strategies that may prove useful. As higher levels of exposure to media coverage during a disaster are associated with increased disordered eating (Rodgers et al., 2012), individuals may benefit from limiting media consumption. Adopting strategies from media literacy programs may be also helpful in managing social comparisons. Specifically, research suggests that psychoeducation about topics such as the thin ideal, marketing/advertising strategies commonly used to sell products, and photo editing strategies that perpetuate unrealistic ideals may reduce the risk associated with media consumption (McLean et al., 2016). Altering the *type* of media consumed may also help to mitigate the potential harm done by access to social media: for example, focusing on humorous content or fat positive images can positively impact body image and eating attitudes (Cohen et al., 2019; Slater et al., 2019)

Increasing valued activities and helpful social connection

Both behavioral activation from the treatment of depression (Jacobson et al., 2001; Kanter et al., 2010) and strategies for decreasing overvaluation of shape and weight (e.g., Fairburn, 2008) may represent helpful tools for individuals in isolation. These could include brainstorming and scheduling engagement in positive, valued activities that enhance self-esteem and promote an upregulation of positive affect in non-weight/shape-related life domains (i.e., scheduling social activities and building connections with family/friends, engagement in religious/spiritual activities, exploring new hobbies, engaging in further education). We note that symptoms of depression and social anxiety as well as physical distancing guidelines may detrimentally impact motivation for positive and valued actions. However, engaging in COVID-appropriate behavioral activation would likely serve individuals with EDs twofold: firstly, through promoting a general increase in positive affect (Kanter et al., 2010), and secondly, through shifting focus from food, weight, and shape to

other life domains. Further, identifying creative methods to increase social connectedness during the period of physical distancing may buffer the negative effects of social isolation and loneliness. Interpersonal connectedness is key to healthy functioning among individuals affected by EDs, consistent with research suggesting that social relationships impact stress and risk for developing EDs (Linville et al., 2012; Quiles Marcos et al., 2013). We recommend that individuals take inventory of, or self-monitor, how forms of social connection impact their mood and sense of meaning, with the purpose of reducing social interactions that may increase stress and burnout or promote engagement in upward social comparisons.

Discussion

COVID-19 represents an unprecedented and dire public health threat for individuals across the world and, for those with EDs, both short- and long-term consequences of this pandemic and subsequent quarantine may be especially concerning. Grocery stores have hosted frenzied food purchases and empty shelves, fitness centers have closed, and fat-phobic media messaging has ranged from playful tut-tuts to explicit warnings about potential quarantine-related weight gain and COVID-19 mortality associated with adiposity. This review has highlighted specific risks to individuals with EDs including food insecurity and social isolation as well as broader risks of increased trauma incidence, anxiety, and limited access to regular coping mechanisms during a period of unprecedented stress (see Table 1). These factors, in conjunction with weight-phobic media messaging and productivity or “self-improvement” pressure, likely augment the risk of EDs. Taken together, the potential impact of the pandemic on individuals with EDs is staggering and necessitates concerted intervention efforts.

Unfortunately, with an estimated 12–18 months until a vaccine is available, the lifestyle changes related to COVID-19 will likely be enduring and have lasting consequences (Kissler et al., 2020). Given the severe mortality and morbidity associated with eating pathology (Arcelus, 2011), individuals with EDs cannot afford to wait out the storm. Clinicians must critically consider quickly addressing risk factors and adopting intervention methods to enhance our ability to provide ED treatment in the context of COVID-19. While there is currently no precedent to guide the selection of “empirically based” approaches for mitigating heightened risk during this crisis, past research suggests that individuals with EDs may benefit from reduced media consumption, engaging in valued activities, and increasing social connections. Further, clinicians can capitalize on recent innovations in telehealth, digital tools/apps, and guided self-help interventions to provide ongoing support for individuals with EDs (for example, Matheson et al., 2020; Waller et al., 2020). We encourage empirical evaluation of the usefulness of these proposed strategies, among others, so we as a field can be best-equipped to help those struggling with EDs to survive and thrive in the months and years to come.

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Clinical Implications

- Individuals with eating disorders (ED) may be at risk for worsening symptomatology during COVID-19.
- Specific risks include food insecurity, fatphobic messaging, and restricted healthcare access
- Digital and e-health options have been well-researched in ED populations and may prove useful
- Behavioral activation, exposure therapy, and media literacy interventions may also be adapted

Table 1.

Summary of risk factors for individuals with eating disorders during COVID-19.

Eating-disorder specific risk factors	
Food access	<ul style="list-style-type: none"> Real or perceived food scarcity Reduced access to food and/or specific food preferences Food abundance due to reduced grocery trips Greater demand on food stamp programs Increased eating-related guilt
Media and media messaging	<ul style="list-style-type: none"> Exposure to distressing media coverage of COVID-19 Social media comparisons Increase in fatphobic messaging (e.g., “Quarantine 15”)
Exercise limitations	<ul style="list-style-type: none"> Limited avenues for exercise engagement and social exercise Restrictive or restrained eating to compensate for exercise abstinence or general reductions in daily physical activity Increased psychological distress Potential for withdrawal symptoms from exercise
Restricted healthcare access	<ul style="list-style-type: none"> Inability to access higher levels of care Telehealth restrictions Lack of insurance coverage for telehealth, state regulations
Exacerbated risk factors in light of the COVID-19 pandemic	
Stressful life events	<ul style="list-style-type: none"> Major changes to life circumstances Bereavement Gender-related differences Impacts on healthcare workers and individuals with COVID-19
Anxiety	<ul style="list-style-type: none"> Increased uncertainty Increased use of ED behaviors as coping mechanisms Hypervigilance of internal bodily states
Social isolation and decreased social support	<ul style="list-style-type: none"> Separation from support systems Solitary self-isolation Specific LGBTQIA+ concerns
Trauma and abuse	<ul style="list-style-type: none"> Increased possibility of domestic violence Increased likelihood of household conflict
Perfectionistic expectations	<ul style="list-style-type: none"> Normalization of perfectionism Blurred work-life boundaries Pressure to focus on “self-improvement”

Table 2. Summary of recommended interventions and strategies for individuals with eating disorders during COVID-19.

Pertinent Interventions	
Accessible treatment options	<ul style="list-style-type: none"> Telehealth Guided self-help Email and text messages Digital tools for self-monitoring Online support groups
Targeting specific eating and food related challenges	<ul style="list-style-type: none"> Reassessment of meal plans and flexible meal planning Maintaining daily structures and routines Focus on internal awareness of satiety and hunger Use self-compassion toward current struggles Encourage focus on body functionality Challenge unhealthy food-related cognitive distortions
General Recommendations	
Media consumption strategies	<ul style="list-style-type: none"> Limit news media exposure Reduce appearance-related media consumption Alter social media feeds Critically evaluate media images and messages
Increasing valued activities and helpful social connection.	<ul style="list-style-type: none"> Schedule activities that promote a sense of mastery/achievement, as well as those that promote pleasure Identify activities that improve self-worth Connect with peers online Monitor meaning and pleasure resulting from peer interactions