Eating Behaviors Associated with Suicidal Behaviors and Overall Risk

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Abstract

Maladaptive eating behaviors remain prevalent in the U.S. population, and a significant percentage of U.S. college students acknowledge engaging in maladaptive eating. Formally defined eating disorders (EDs) have the highest mortality rate of any other mental illness. Suicide risk is substantially elevated among individuals diagnosed with EDs, and even subclinical levels of maladaptive eating behaviors are associated with suicidality. The current study examined associations between specific problematic eating behaviors measured dimensionally (e.g., purging, binging, laxative use) and specific suicide-related constructs and behaviors as well as overall suicide risk. College students (n=188; 62% women) completed the EDE-Q, a well-established measure of dysfunctional eating, as well as several self-report measures of theoretical components of suicidality, and, finally, a semi-structured clinical interview. Results showed a general pattern of moderate and strong associations between the subscales and overall score of the EDE-Q and core suicide constructs of the interpersonal-psychological theory of suicide (IPTS). Many substantive correlations were found between specific eating behaviors and specific suicide-related behaviors; for example, purging was the highest correlate of overall suicide risk ($\rho = .36$). These results are discussed in terms of consistency with the IPTS as well as practical implications for intervention.

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Maladaptive eating behaviors remain prevalent in the U.S. population, and a significant percentage of U.S. college students acknowledge engaging in maladaptive eating. Formally defined eating disorders (EDs) have the highest mortality rate of any other mental illness. Suicide risk is substantially elevated among individuals diagnosed with EDs, and even subclinical levels of maladaptive eating behaviors are associated with suicidality. The current study examined associations between specific problematic eating behaviors measured dimensionally (e.g., purging, binging, laxative use) and specific suicide-related constructs and behaviors as well as overall suicide risk. College students (n=188; 62% women) completed the EDE-Q, a well-established measure of dysfunctional eating, as well as several self-report measures of theoretical components of suicidality, and, finally, a semi-structured clinical interview. Results showed a general pattern of moderate and strong associations between the subscales and overall score of the EDE-Q and core suicide constructs of the interpersonal-psychological theory of suicide (IPTS). Many substantive correlations were found between specific eating behaviors and specific suicide-related behaviors; for example, purging was the highest correlate of overall suicide risk ($\rho = .36$). These results are discussed in terms of consistency with the IPTS as well as practical implications for intervention.

Keywords: maladaptive eating behaviors; EDE-Q; suicide risk; Interpersonal-Psychological Theory of Suicide

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Maladaptive eating behaviors are prevalent and formal diagnoses of eating pathology (eating "disorders; EDs) have been on the rise over the past several decades (Galmiche et al., 2019). In the United States, approximately 30 million individuals will struggle with an ED at some point in their lifetime (Deloitte Access Economics, 2020; Galmiche et al., 2019; Le Grange et al., 2012). Research has demonstrated that a significant percentage of U.S. college students engage in maladaptive eating behaviors, with 40.2% indicating they had engaged in at least one binge eating episode and 30.2% reported that they had engaged in at least one compensatory behavior in the past month (Lipson & Sonneville, 2017). Not only are maladaptive eating behaviors prevalent, the*Diagnostic and Statistical Manual of Mental Disorders – Fifth Edition* (DSM-5; American Psychiatric Association, 2013) states EDs have the highest mortality rate of any other mental illness, with studies indicating that 10,200 deaths per year are a direct result of an ED (Deloitte Access Economics, 2020). Suicide risk is substantially elevated among individuals diagnosed with EDs, and even subclinical levels of maladaptive eating behaviors are associated with suicidality (American Psychiatric Association, 2013; Lipson & Sonneville, 2020). The current study examines the relationship between specific problematic eating behaviors (e.g., purging, binging, laxative use) and specific suicide-related behaviors as well as overall suicide risk.

EDs and Suicide Behavior

The relationship between EDs and suicidality has been well documented in clinical samples, with risk transcending categorical diagnosis (Duffy et al., 2021; Forrest et al., 2016; Udo et al., 2019). For instance, Udo and colleagues (2019) found that 24.9% of those with a history of anorexia, 31.4% of those with a history of bulimia, and 22.9% of those with a history of binge eating disorder had attempted suicide in their lifetime. However, EDs are undertreated and underdiagnosed (Udo & Grilo, 2018), meaning clinical samples only capture a small percentage of those struggling with maladaptive eating behaviors. Additionally, diagnostic crossover is a common feature of eating disorders, as a change on one single symptom may result in a different diagnosis (Castellini, 2011), and research suggest that those who transition between different ED diagnoses may be at higher risk for suicide attempts (Udo et al., 2019). As such, research is needed to examine suicide risk across maladaptive eating symptom presentation and severity level.

Although suicidality is associated across all EDs, purging behaviors are of particular concern, with studies revealing that this maladaptive eating behavior is significantly associated with suicide attempts (Lipson & Sonneville, 2020; Pisetsky et al., 2013; Udo et al., 2019), while restricting behaviors seem to be more strongly associated with suicidal ideation (Forrest et al., 2016). For instance, Udo and colleagues (2019) found that the prevalence of suicide attempts was substantially higher for individuals diagnosed with anorexia nervosa who purged (44.1%) than those diagnosed with anorexia who did not purge (15.7%). Other research has demonstrated that the number of maladaptive eating of symptoms a person is experiencing is significantly, positively associated with suicidal ideation and suicide attempt, where risk increases with each symptom endorsement (Lipson & Sonneville, 2020).

Interpersonal-Psychological Theory of Suicide

Individuals who struggle with maladaptive eating behaviors often experience impaired interpersonal functioning. Interpersonal dysfunction is theorized to impact suicide risk (Joiner, 2005; Van Orden et al., 2010). The interpersonal-psychological theory of suicide (IPTS; Van Orden, 2010) is one of the more prominent theoretical frameworks of suicide risk. There are three constructs central to this theory that are necessary and sufficient for suicidal behavior: thwarted belongingness, perceived burdensomeness, and capability for suicide (Van Orden, 2010). According to the IPTS, thwarted belongingness is a feeling of social isolation, like one does not belong to a group or belong with other people and includes feelings of loneliness and the absence of reciprocally caring relationships. Perceived burdensomeness is a feeling that one is a burden on their family, friends, and/or society and that these individuals would be better off without them, accompanying feelings include liability and self-hate. Capability for suicide is characterized by the loss of fear associated with death as well as the ability to attempt to kill oneself. Both thwarted belongingness and perceived burdensomeness are cognitive affective states that are likely to vary over time, whereas capability is associated with habituation, physical means, and underlying traits.

Suicide risk is thus determined by two progressive stages. The first stage of the IPTS is associated with the desire for suicide, or suicidal ideation, which develops from the simultaneous presence of both thwarted belongingness and perceived burdensomeness and are both viewed as being unamenable to change via the feeling of hopelessness. As such, the desire for suicide will develop and will be manifested behaviorally as active suicidal ideation (Joiner, 2005; Van Orden, 2010). The second stage of the IPTS is associated with the capability to engage in suicidal behavior. For a lethal, or near-lethal, attempt to occur, one must have the desire for death (i.e., stage one) in addition to the capability to engage in suicidal behavior. The capability to engage in suicidal behavior is enhanced by habituation to situations that normally produce feelings of fear, anxiety, and avoidance. In contrast to thwarted belongingness and perceived burdensomeness, capability is a construct that is stable and less amenable to therapeutic change, except for physical means (e.g., removing weapons from a person's environment). It is based on both genetic components in addition to exposure to life events that increase fearlessness about death (via habituation) and increased pain tolerance (e.g., previous suicide attempts, non-suicidal self- injury). It is theorized that habituation to pain and fear may also occur via painful maladaptive eating behaviors (e.g., compulsive exercise, self-induced vomiting, self-starvation; Smith et al., 2018).

EDs and the IPTS

Previous research regarding the IPTS and eating behaviors has typically focused on populations with clinically diagnosed EDs. Perceived burdensomeness has been associated with body dissatisfaction, binge eating, restricting, and laxative misuse in inpatient samples (Forrest et al., 2016). Furthermore, body dissatisfaction and restricting are related to suicidal ideation through higher perceived burdensomeness (Forrest et al., 2016). Thwarted belongingness has been positively associated with body dissatisfaction and restricting behaviors (Forrest et al., 2016). When looking specifically at a population of women diagnosed with bulimia, Lieberman and colleagues (2021) found perceived burdensomeness had a stronger effect on suicidal ideation than thwarted belongingness did, and that the interaction between perceived burdensomeness and thwarted belongingness was significantly associated with suicidal ideation. Similar results were found among a heterogenous ED sample, where the combination of thwarted belongingness and perceived burdensomeness was associated with lifetime suicidal ideation (Pisetsky et al., 2017).

Studies on capability for suicide have not provided entirely consistent results. For instance, Pisetsky and colleagues (2017) found that the pain tolerance facet of acquired capability was significantly associated with suicide attempts among those diagnosed with EDs, but it was not associated with fearlessness about death. A study among a college student sample examined pain tolerance and fearlessness about death among individuals who restricted calories and did not find an association (Zuromski & Witte, 2015). Similar results were demonstrated in a clinical sample which indicated that restricting was not associated with capability after controlling for other maladaptive eating behaviors (Witte et al., 2016). This finding is interesting considering research does indicate that restricting is associated with suicide attempts (Zuromski & Witte, 2015; Witte et al., 2016). Other maladaptive eating behaviors, such as vomiting and laxative misuse, have demonstrated strong associations with capability even when controlling for restricting behaviors (Witte et al., 2016). Additionally, vomiting was significantly associated with both facets of capability (i.e., pain tolerance and fearlessness about death; Witte et al., 2016).

Individuals diagnosed with EDs and individuals in psychiatric care have been found to demonstrate higher levels of thwarted belongingness, perceived burdensomeness, and suicidal ideation than a general college student population (Smith et al., 2016). However, college student populations in themselves constitute an important group for maladaptive eating behaviors and suicide risk research (Lipson & Sonneville, 2020). Studies examining the IPTS in college student samples have found that greater numbers of maladaptive eating symptoms as measured by the Eating Disorder Examination- Questionnaire were associated with greater thwarted belongingness and perceived burdensomeness, both of which were associated with a greater suicide risk (Kwan et al., 2017). Overall, research indicates that suicide risk is higher among those who engage in maladaptive eating behaviors and is influenced by severity and specific symptom presentations (Lipson & Sonneville, 2020).

EDs vs. Problematic Eating Behavior

Over the past two decades, the field of abnormal psychology has experienced a major change in how psychological dysfunction is conceptualized, with clear abandonment of dichotomous-categorical models (e.g., the traditional "disorders") in favor of hierarchical-dimensional models focused on structural arrangements of relatively homogenous major traits and symptoms. Though dimensional models of psychopathology have certainly existed for much longer (e.g., Achenbach, 1966; Harkness, 1992; Meehl, 1992; Tellegen, 1985), recent developments reflect a true paradigm shift. Notable initiatives that have accelerated this shift include the NIMH RDoC program (Insel, 2014) and the more recent HiTOP project (e.g., Kotov et al., 2017; Krueger et al., 2018). It is possible that inconsistent findings in previous research, particularly research that focused on examining suicide risk within specific diagnostic groups of EDs, may be due to some of the limitations of the categorical model of diagnosis. This in conjunction with the support for moving to a hierarchical-dimensional model of diagnosis led to our decision to focus on dimensional measures of eating pathology, as well as specific problematic eating behaviors, instead of relying on diagnostic categories.

The Current Study

The current study focused on examining the relationship between problematic eating behaviors and suicidal behaviors and overall risk level, as defined using the IPTS framework. To have some consistency with previous research, we examined relationships between IPTS factors (i.e., thwarted belongingness, perceived burdensomeness, and fearlessness about death) and a global measure of eating pathology (Eating Disorder Examination- Questionnaire; Fairburn, 2008). In addition, we examined relationships between global eating pathology and specific problematic eating behaviors, and level of suicide risk as measured using the IPTS. Finally, we examined relationships between specific problematic eating behaviors and specific suicide risk behaviors. Our overall goal is to provide clinicians with a more detailed and specific mapping of maladaptive eating traits and symptoms with suicide-related traits and symptoms, including overall suicide risk.

Method

Participants

Participants were 188 undergraduate students who consented to participate in a broader study at a moderate-sized state university in the rural southeast of the United States; the study was approved by the university IRB. The students received credit toward their general psychology course requirements in exchange for participating in this study. The sample consisted of 115 women (61.2%), and 73 men (38.8%). Participants were required to be at least 18 years of age to participate. The mean age of participants was 18.91 (SD = 1.86) with ages ranging from 18 to 37. Within this sample, 86.2% of participants were White, 9.6% were Hispanic or Latinx, 8% were Black or African American, 4.3% were American Indian or Alaska Native, 0.5% were Asian, 0.5% were Native Hawaiian or Other Pacific Islander, and 0.5% were of another ethnicity.

Measures

Eating Disorder Examination- Questionnaire (EDE-Q)

The EDE-Q (6.0; Fairburn, 2008) is a 28-item self-report measure that identifies attitudes and behaviors associated with eating pathology. Twenty-two items comprise four subscales: Restraint, Eating Concern, Weight Concern, and Shape Concern. The EDE-Q also contains a total Global score intended to reflect overall symptom severity. Higher scores on the global scale and subscales indicate more problematic eating behaviors and attitudes. Of the 28 items, 6 items measure behavioral frequencies of maladaptive eating behaviors over the past 28 days. The EDE-Q has demonstrated adequate reliability and validity in non-clinical samples (Luce & Crowther, 1999; Mond et al., 2004).

Interpersonal Needs Questionnaire (INQ-15)

The INQ-15 (Van Orden et al., 2012) is a 15-item self-report assessment of thwarted belongingness (9 items; Cronbach's alpha = .88),) and perceived burdensomeness (6 items; Cronbach's alpha = .91). Each item is rated on a 7-point Likert-type scale ranging from 1 (*not at all true for me*) to 7 (*very true for me*). Scores

are coded in a way where higher scores indicate greater severity of thwarted belongingness and perceived burdensomeness. The INQ-15 has demonstrated strong psychometric properties (Van Orden et al., 2012).

Depressive Symptom Index-Suicidality Subscale (DSI-SS)

The DSI-SS (Joiner et al., 2002) is a four-item self-report assessment developed to evaluate suicidal ideation severity. This measure assesses the frequency and intensity of suicidal ideation and impulses in the past 2 weeks. Scores on items range from 0 to 3; item scores are summed for a total score, with higher scores indicating a higher severity of suicidal ideation. The DSI-SS demonstrated good internal consistency and construct validity in the validation study (Joiner et al., 2002).

Acquired Capability for Suicide Scale- Fearlessness About Death (ACSS-FAD)

The ACSS-FAD (Ribeiro et al., 2014) is a 5-item, Likert-type scale. All items are rated on a scale from 0 (*not at all like me*) to 4 (*very much like me*). Total scores on this scale range from 0 to 20, with higher scores indicating greater levels of fearlessness about death.

Interpersonal Psychological Theory of Suicide Semi-Structured Interview (IPTS)

The IPTS (Chu et al., 2015) is a semi-structured interview that assesses an individual's level of suicide risk. There are 4 classifications of suicide risk: Low, Moderate, Severe, and Extreme, with each level being associated with suggested interventions. Content includes previous suicide attempts, suicidal thoughts, history of non-suicidal self-injury, intention for suicide, believing one could attempt suicide, family history of suicide, hopelessness, perceived burdensomeness, and thwarted belongingness. All interviews were conducted by trained graduate students and responses for all content was recorded and then coded by 3 undergraduate research assistants.

Procedure

Participants were scheduled for individual session on an online, HIPAA-compliant, communication platform. Upon arrival, participants were informed that participation was voluntary and could be discontinued at any time. Verbal consent was obtained from students and then information about their physical location was obtained and stored in separate, secure document; this information was used in case of emergency due to elevated suicide risk and was deleted at the conclusion of the student's participation. Students then provided formal, electronic consent and then completed a series of questionnaires (including the INQ-15, ACSS-FAD, DSI-SS, and the EDE-Q). The study concluded with the IPTS risk interview; if students indicated some level of suicide risk, they were connected with the counseling center on campus – if they indicated extreme/imminent risk, then 911 was contacted.

Results

All analyses were conducted using *SPSS* ; all correlations were calculated using Spearman's ρ to account for non-normal variables (Bishara & Hittner, 2012). Results concerning the scales of the EDE-Q and the scales assessing constructs of the IPTS showed a general pattern of moderate and strong associations between thwarted belongingness (ρ = .27 - .45), perceived burdensomeness (ρ = .33 - .52), and suicidal thoughts/behaviors (ρ = .28 - .38). Fearlessness about death was not correlated with any of the EDE-Q scales. See Table 1 for a list of these correlations. The correlations between the EDE-Q scales and suicide risk (see Table 2) were generally lower (ρ = .19 - .24), but it should be noted that these measures lack shared method variance.

When analyzing the association between specific problematic eating behaviors and suicide risk, feeling as if one has lost control while eating (ρ = .30), number of days one engages in binging (ρ= .32), and purging (ρ = .36) were all moderately correlated with suicide risk. Excessive exercising (ρ = .25) and binging episodes (ρ = .29) were approaching moderate strength, whereas laxative use (ρ = -.04) was not correlated with suicide risk. In terms of correlations between specific problematic eating behaviors and specific suicide risk behaviors, laxative use and excessive exercising generally were not correlated with any suicide risk behaviors, except

for believing that one could attempt suicide (laxative use $\rho = .17$) and suicide intent (excessive exercise $\rho = 28$). Number of days engaging in binge eating ($\rho = .31$) and a feeling of loss of control when eating ($\rho = .51$) had the highest correlations with non-suicidal self-injury, whereas purging had the highest correlations with number of suicide attempts ($\rho = .21$), suicide intent ($\rho = .23$), and believing one could attempt suicide ($\rho = .23$). See Table 3 for a full list of these correlations.

Discussion

The current study aimed to examine the relationship between problematic eating behaviors and suicidal behaviors and overall risk level, using the IPTS framework. The present findings indicate that individuals who struggle with maladaptive eating behaviors exhibit higher levels of thwarted belongingness and perceived burdensomeness and suicidal thought/behaviors. This has been found in previous literature among college students with maladaptive eating behaviors (Kwan et al., 2017), and among those with clinically diagnosed EDs (Forrest et al., 2016; Pisetsky et al., 2017). While most of these studies used the EDE-Q global index to determine the severity of maladaptive eating behaviors and their relationship to thwarted belongingness and perceived burdensomeness, our study examined each subscale of the EDE-Q. The results indicated moderate to strong correlations between thwarted belonginess, perceived burdensomeness, and all subscales and global scores of the EDE-Q. These results suggest that maladaptive eating behaviors and body dissatisfaction (as measured by EDE-Q Shape and Weight Concerns) are associated with aspects of the interpersonal theory of suicide that may result in suicidal ideation. Our correlations between fearlessness about death and EDE-Q subscales varied slightly from Zuromski and Witte's (2015) findings; whereas they found significant small negative correlations between FAD and EDE-Q Shape concerns, we found mostly negligible correlations.

As explained in Van Orden and colleagues (2010) components of perceived burdensomeness include self-hatred, self-blame, and shame. Individuals who struggle with symptoms of eating pathology may hold negative beliefs about themselves and their self-worth (APA, 2013). These negative feelings toward self may facilitate further self-hatred and guilt, thus influencing their feelings of burdensomeness. Additionally, individuals who struggle with maladaptive eating behaviors often compare themselves to others (Fairburn, 2008) and their perceived discrepancies, between them and others, may influence feelings of belongingness. According the IPTS, experiencing thwarted belongingness and perceived burdensomeness simultaneously can result in passive suicidal ideation (Van Orden et al., 2010). Our results are consistent with the IPTS theory, indicating that maladaptive eating behaviors and attitudes have moderate correlations with constructs of the IPTS that influence passive suicidal ideation. In addition, our findings may help explain why there has been some inconsistency in the literature, especially findings based on studying EDs as opposed to examining specific eating pathology. For example, we found that binging and laxative use had the lowest number of associations with various suicide behaviors, whereas, purging and feelings of loss of control when eating were correlated with most suicide related behaviors. Laxative use and purging could both satisfy the criterion related to compensatory strategies; as such, if an ED sample (e.g., anorexia) did not distinguish between the various compensatory strategies, it is possible that findings could be skewed and unstable across samples due to the dimensional differences within the compensatory strategies criterion.

When we examined suicide risk categories as defined by the IPTS and specific problematic eating behaviors, results demonstrated moderate correlations with loss of control, number of days binge eating episodes occur, and purging. Excessive exercise and binging episodes were approaching moderate correlations. However, we found stronger correlations when we assessed specific problematic eating behaviors and specific suicide risk behaviors. For instance, purging behaviors appear to be of particular concern. Although purging did not have the strongest associations with all suicide risk behaviors, purging did have correlations with intent to kill oneself, and confidence that one could attempt suicide. Excessive exercise was also approaching a moderate effect size with intent to kill oneself. Based on these findings, it may be suggested that clinicians treating clients who present with purging behaviors and who engage in excessive exercise may want to gather more information about suicide risk, particularly related to suicide intent, and regarding their confidence in attempting suicide. Additionally, because it is common for maladaptive eating behaviors to shift (APA, 2013) it is recommended that clinicians closely monitor clients for changes in symptom presentation, since

some symptoms are more strongly associated with suicide risk.

Because our data are correlational, we cannot assume the direction of causality between maladaptive eating behaviors and suicide risk. It may be that individuals engage in maladaptive eating behaviors to cope with suicidal thoughts. Cognitive behavioral interventions are often the first-line treatment for maladaptive eating behaviors and target issues related to shape, weight, and food (Fairburn, 2008). Although these interventions may aid in alleviating some maladaptive eating behaviors, they may not target all the underlying issues that lead an individual to engage in these behaviors. While some research indicates that emotion regulation plays an essential role in the development and maintenance of EDs (Leppanen et al. 2022), not all treatments acknowledge the difficulties that these individuals face with tolerating and effectively regulating emotional arousal. Therefore, if an individual in treatment for maladaptive eating experiences suicidal ideation, they may not have developed other adaptive emotion regulation strategies and may resort to their maladaptive eating behaviors. These results highlight the importance of evaluating eating behaviors as a mechanism of managing suicidal thoughts in order to identify alternative adaptive strategies to manage suicidal ideation that may decrease utilization of maladaptive eating behaviors and aid in recovery efforts.

The primary limitation to the current study is our sample size. Considering the large effect sizes found between some behaviors that were not predicted (e.g., feelings of loss of control and non-suicidal self-injury), as well as many small effect sizes (e.g., purging and various forms of suicide related behaviors), replication will be important to increase confidence in these findings. Some may argue that our sample consisting of college students may also be a limitation; however, we believe that is less of a concern due to our focus on problematic eating behaviors vs. focusing on categorical EDs. In fact, we believe our results support a suggestion for future researchers to focus on specific problematic eating behaviors as opposed to simply categorizing people based on diagnostic considerations due to the differentiation we found between similar categorical behaviors (e.g., use of laxatives vs. purging with suicidal behaviors). We believe it would be beneficial for future researchers to examine correlations between eating and suicide behaviors within a broad clinical sample (e.g., outpatients), as this would likely increase the variability across all behaviors. In addition, we would recommend that future researchers, even if they focus on categorical ED diagnoses, consider specific behaviors – especially considering our findings and general findings that dimensional based analyses seem to be better supported (see, for example, Kotov et al., 2017).

Conclusion

In conclusion, the current study provides evidence to support a link between problematic eating behaviors and suicidal behaviors and risk. Specifically, analyses suggest the importance of considering specific behaviors, as opposed to relying on categorical diagnoses. Furthermore, our findings provide guidance to clinicians in terms of clinical approaches when targeting specific types of problematic behavior. Hopefully, future studies will be able to examine connections between specific eating and suicidal behaviors.

Clinical Implications

- Overall suicide risk is associated with purging, binging, and loss of control over eating.
- Purging is associated with intent to kill oneself and confidence that one could attempt suicide.
- Excessive exercise is associated with intent to kill oneself.
- Loss of control over eating is associated with non-suicidal self-injury and intent to kill oneself.

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Table 1

Correlations between EDE-Q Scales and IPTS Constructs

	INQ-Belong	INQ-Burden	FAD	DSI
EDE-Q Restraint	.27	.33	.08	.28
EDE-Q Concern	.43	.44	-.07	.36
EDE-Q Weight	.42	.46	-.04	.31
EDE-Q Shape	.45	.52	-.02	.38
EDE-Q Global	.44	.49	.00	.35

Note: All correlation coefficients are Spearman's ρ . EDE-Q = Eating Disorder Examination – Questionnaire; subscales names are presented in full; EDE-Q Global is the overall scale. INQ – Interpersonal Needs Questionnaire; "Belong" denotes thwarted belongingness; "Burden" denotes perceived burdensomeness. DSI = Depressive Symptoms Inventory.

Table 2

Correlations between Problematic Eating Behaviors and EDE-Q scales, and Suicide Risk

	IPTS-Risk Level
Binging	.29
Loss of Control	.30
Binging Days	.32
Purging	.36
Laxatives	-.04
Exercise	.25
EDEQ-Restraint	.19
EDEQ-Eating	.23
EDEQ-Weight	.20
EDEQ-Shape	.24
EDEQ-Global	.22

Note: All correlation coefficients are Spearman's ρ . EDE-Q = Eating Disorder Examination – Questionnaire; subscales names are presented in full; EDE-Q Global is the overall scale.IPTS = interpersonal-psychological theory of suicide semi-structured clinical interview, yielding overall categorical risk level.

Table 3

Correlations between Problematic Eating Behaviors and Specific Suicide Risk Behaviors

	Attempts	NSSI	Intent	Could Attempt
Binging	.08	.19	.03	.09
Loss of Control	.18	.51	.22	.18

	Attempts	NSSI	Intent	Could Attempt
Binging Days	.16	.31	.12	.11
Purging	.21	.21	.23	.23
Laxatives	-.04	-.06	-.02	.17
Exercise	.05	.07	.28	.04

Note: All correlation coefficients are Spearman's ρ . EDE-Q = Eating Disorder Examination – Questionnaire; subscales names are presented in full; EDE-Q Global is the overall scale.IPTS = interpersonal-psychological theory of suicide semi-structured clinical interview, yielding overall categorical risk level.