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Title:
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Date:
2024-09-01

Citation:
Croce, S. R., Malcolm, A. C., Ralph-Nearman, C. & Phillipou, A. (2024). Examining Identity Functioning in Anorexia Nervosa Across Illness and Recovery Stages. International Journal of Eating Disorders, 57 (9), pp.1959-1968. https://doi.org/10.1002/eat.24247.

Persistent Link:
https://hdl.handle.net/11343/351087

International Journal of Eating Disorders

WILEY

International Journal of EATING DISORDERS

ORIGINAL ARTICLE OPEN ACCESS

Examining Identity Functioning in Anorexia Nervosa Across Illness and Recovery Stages

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Received: 26 February 2024 | **Revised:** 8 June 2024 | **Accepted:** 10 June 2024

Action Editor: B. Timothy Walsh

Funding: Scarlett R. Croce is supported by Swinburne University Postgraduate Research Award (SUPRA). A/Prof Andrea Phillipou is supported by National Health and Medical Research Council (NHMRC) Project Grant (CIA-GNT1159953). Dr Christina Ralph-Nearman is supported by the National Institute of Mental Health (NIMH) Grant (R15 MH121445), and from the National Institute of General Medical Sciences (KY-INBRE) Grant (P20GM103436-20).

Keywords: anorexia nervosa | identity | identity disturbance | identity functioning | illness stages | recovery | recovery stages | sense of self

ABSTRACT

Objective: Research suggests that identity functioning (i.e., sense of self) issues may be a core feature of anorexia nervosa (AN). We aimed to investigate differences in identity functioning among women with AN at varying illness and recovery stages, and women with no history of eating disorders (non-ED controls). It was hypothesized that those with current AN (AN-C), weight-restored (AN-WR), and partial recovered individuals (AN-PR) would show poorer identity functioning than fully recovered individuals (AN-FR) and non-ED controls.

Method: Women (334) with AN-C ($n = 74$), AN-WR ($n = 90$), AN-PR ($n = 19$), AN-FR ($n = 22$), and non-ED controls ($n = 129$) completed online self-report measures of identity functioning and ED symptom severity.

Results: The AN-C group showed significantly poorer overall identity functioning, poorer *consolidated identity*, and significantly worse *disturbed* and *lack of identity*, than the AN-PR, AN-FR, and non-ED Control groups. The AN-WR group showed significantly poorer overall identity function, and worse *lack of identity*, than the AN-FR and non-ED Controls, and poorer *consolidated identity* and *disturbed identity* than non-ED Controls. Identity scores did not significantly differ between AN-PR, AN-FR, and non-ED Controls.

Discussion: Differences in identity functioning are identifiable among individuals at different AN recovery stages, and thus may represent an important state-based feature of AN, making it an important area of consideration in treatment.

1 | Introduction

Current treatment outcomes for anorexia nervosa (AN) are insufficient, with high relapse rates of up to 40% in the first year after treatment, often within the first 2 months after discharge (Carter et al. 2004; Walsh et al. 2021). As such, it is imperative to improve our understanding how this disorder functions to bolster treatment outcomes. One factor which may be important

Summary

- The findings of this study suggest identity functioning to be an important element of anorexia nervosa, which differs among illness and recovery stages.
- Further, differences in identity functioning between individuals who were currently ill compared with individuals who were fully recovered suggest identity may be connected to achieving recovery. Making it an important factor for consideration in treatment which may potentially improve treatment outcomes.

in AN is identity, a developmental construct consisting of one's sense of self. Erikson (1968) defined identity as the conscious awareness of oneself as a person, including a sense of *sameness* or unified continuity within the self across time and situations, and *uniqueness* or differentiation of self from others while still being able to form meaningful connections.

Theoretical frameworks of AN have emphasized the role of identity in the development and progression of the illness. Bruch (1982) first described AN as a *disorder of the self*, stating the function of AN was to fulfill an empty sense of identity by creating a *false self* (Bruch, Czyzewski, and Suhr 1994). Clinicians and researchers have since derived theories which implicate self and identity difficulties at the crux of the disorder (Amianto et al. 2016; Bruch 1981; Casper 1983; Garfinkel and Garner 1983; Goodsitt 1997; Oldershaw, Startup, and Lavender 2019). These theories propose a chain of developmental problems from infancy to adolescence which lead to an increased risk for the manifestation of AN. For example, if a primary caregiver fails to meet an infant's needs, attachment disruptions may occur which lead to the infant failing to understand their own needs and being unable to differentiate themselves from others (Amianto et al. 2016). This lack of self-understanding subsequently leads to difficulties in forming a cohesive sense of self or identity (Amianto et al. 2016; Oldershaw, Startup, and Lavender 2019). This identity formation difficulty may result in a struggle to incorporate the physical body into one's sense of self, leading to a disconnection between the self and the body (Bruch 1981, 1982; Goodsitt 1997). Such disconnection may create a vulnerability toward body image disturbances, that is, distortions in how body shape and weight are experienced (Goodsitt 1997). In addition, attachment ruptures may also contribute to difficulties responding effectively to one's own emotions due to a lack of understanding, leading to emotional regulation difficulties. These emotional regulation difficulties can create feelings of dependency on others, as one lacks the sense of autonomy provided by an integrated sense of self (Bruch 1981, 1982; Casper 1983; Garfinkel and Garner 1983; Goodsitt 1997). In adolescence, developmental tasks demand ever increasing levels of autonomy along with the ability to adapt to the bodily changes of puberty (Ferrer-Wreder and Kroger 2019). As such, those with identity difficulties may struggle in adolescence due to having low autonomy and may experience increased body-self disconnection. These issues may compound into feelings of lacking control, which, in combination with identity disturbances and emotional dysregulation, may cause high levels of distress (Amianto et al. 2016; Casper 1983; Garfinkel and Garner 1983; Goodsitt 1997; Oldershaw, Startup, and Lavender 2019). The individual may attempt to alleviate this distress by controlling one's body, creating a substitute identity centered on one's thinness or weight, which is proposed to directly result in the development of AN (Amianto et al. 2016; Casper 1983; Garfinkel and Garner 1983; Goodsitt 1997; Oldershaw, Startup, and Lavender 2019). These theoretical frameworks of the development and progression of AN may hold relevance for recovery from the disorder as the existing literature in this area highlights identity as holding a key role in the recovery process.

Empirical research in this area of AN and identity to date has principally been qualitative and has provided support for the theoretical frameworks that suggest that identity may be a key factor in AN (Croce et al. 2024). For instance, qualitative studies have found that individuals with AN report identity as being involved in the maintenance of the disorder through the *AN identity*, an element of AN in which the disorder becomes enmeshed with an individual's identity over the progression of the illness (Broomfield, Rhodes, and Touyz 2021; Higbed and Fox 2010; Voswinkel et al. 2021; Weaver, Wuest, and Ciliska 2005; Williams, King, and Fox 2016). Identity further appears to be instrumental in key recovery stages, such as in *the reclamation of the non-AN-centric self*, which is described as the forging of a new identity that is independent from AN during recovery (Dawson, Rhodes, and Touyz 2014; Lamoureux and Bottorff 2005; Williams, King, and Fox 2016). The limited quantitative research in this area also supports an association between AN and identity functioning issues (i.e., difficulties forming a consolidated, consistent sense of self). Studies have shown that those with a history of AN have significantly poorer identity functioning than those with no history of AN (Bers, Blatt, and Dolinsky 2004; Stein and Corte 2007; Verschueren et al. 2017). One study also reported that AN participants tended to have fragmented, critical, and contradictory evaluative self-judgments (Bers, Blatt, and Dolinsky 2004). AN participants were also found to have negative self-views and less complex identities relative to those without any mental disorder history (Stein and Corte 2007). Further, AN participants displayed significantly more difficulty making identity-related choices (e.g., choices regarding their autonomy) compared with community controls (Verschueren et al. 2017). Collectively, these findings suggest that individuals with AN may struggle with identity disturbance, having negative and limited identities.

Despite several qualitative studies demonstrating the relevance of identity functioning in AN, limited quantitative research exists. In particular, research is largely absent on the relationship between identity functioning and AN across illness and recovery stages, which is important for gaining a more nuanced understanding of how identity issues may relate to the progression of and recovery from the disorder. Bardone-Cone et al. (2010) highlighted the absence of research on AN recovery stages, and proposed criteria to distinguish symptom states of AN ranging from currently ill through to recovered. Exploring AN across illness and recovery stages will be valuable in identifying factors that may be involved in the process of recovery. For instance, changes in identity (e.g., *reclamation of non-AN centric self*) are proposed to be an important process in the later stages of recovery from AN, but it is currently unclear how identity may present differently at different illness and recovery stages.

The current research on AN and identity is also limited in terms exploring different theoretical aspects of identity functioning in individuals with AN, such as *consolidated identity* (i.e., a cohesive, unified sense of self which is consistent and stable across time), *disturbed identity* (i.e., a fragmented sense of self-involving confusion and discontinuity across time), and *lack of identity* (i.e., a sense of oneself as empty or broken; Kaufman, Cundiff, and Crowell 2015).

The overarching aim of this study was to measure differences in identity functioning among individuals at different AN illness and recovery stages, as compared to non-eating disorder controls (non-ED controls), both on overall identity functioning and on facets including *consolidated identity*, *disturbed identity*, and *lack of identity*. It was hypothesized that compared with AN-fully recovered (AN-FR) and non-ED controls, AN-currently ill (AN-C), AN-weight-restored (AN-WR), and AN-partially recovered (AN-PR) groups would have significantly poorer overall identity functioning. As no research has yet been conducted on the specific facets of identity functioning in AN, investigation of these facets was considered exploratory.

2 | Methods

2.1 | Participants

Participants were 334 individuals who self-identified as women, aged between 18 and 70 years old ($M = 29.56$ and SD = 10.02). Participants were categorized into one of five groups based on a modified set of criteria from Bardone-Cone et al. (2010) (see Table 1). Specifically, participants self-reported if they had received a current or past diagnosis of AN and any other EDs. Participant BMI was calculated based on self-reported height and lowest adult weight over the past 3 months and compared with the 18.5 kg/m^2 cutoff. Frequency of behavioral symptoms was measured using questions on self-induced vomiting, laxative use, fasting, or binge eating, with behavioral symptoms counted as present if any of these behaviors were present over the last 28 days. The presence of psychological symptoms was measured as a score >1 SD above community age-matched norms for one or more subscale of the Eating Disorders Examination Questionnaire (EDE-Q) over the last 28 days (Mond et al. 2004). Building upon the recovery criteria proposed by Bardone-Cone et al. (2010) which outlined three groups (active illness, partial recovery, and fully recovered), we created the additional recovery category of *weight-restored*. This category was created to capture individuals who had a BMI above 18.5 kg/m^2 but were still exhibiting behavioral ED symptoms, as these participants did not fit within the Bardone-Cone et al. (2010) criteria for either the AN-C or AN-PR groups. In addition, due to the timeframe of the EDE-Q measure, we were only able to determine if behavioral symptoms had occurred in the past 28 days, as opposed to the Bardone-Cone et al. (2010) 3-month timeframe for behavioral symptoms. Further, the AN-PR group in this study had current self-reported diagnosis of AN instead of no current diagnosis as in Bardone-Cone et al.'s (2010) recovery definition. Finally, the EDE-Q was utilized instead of the EDE; however, it is noted that the EDE-Q has good concurrent validity and acceptable criterion validity with the EDE (Mond et al. 2004).

The final participant groups were: AN-C ($n = 74$), AN-WR ($n = 90$), AN-PR ($n = 19$), AN-FR ($n = 22$ participants), and non-ED controls ($n = 129$). See Table 2 for demographic characteristics across recovery groups.

2.2 | Procedure

Participants were recruited through the University of Melbourne research portal, Swinburne University of Technology's Research Experience Program, participant registries held at Swinburne University, advertisements posted through ED-related organizations and websites, and public advertisements. The anonymous online survey was approved by the Swinburne University Human Research Ethics Committee (SHR Project 2021/6021) and accessed via Qualtrics. The survey took approximately 30 min to complete, and included a check for bot responses using reCAPTCHA V3 along with screening of qualitative responses in the dataset to check for repetitive or nonsensical answers indicating bot responses. After providing informed consent at the outset of the survey, participants completed questions regarding demographics, self-reported psychiatric diagnoses (past and current), height and weight in the past 3 months, and self-report measures assessing ED symptoms, and identity functioning. The survey also included additional measures as part of a larger study; only measures relevant to the current research are reported here. Participants received the

TABLE 1 | Anorexia nervosa group criteria.

	AN-C	AN-WR[a]	AN-PR	AN-FR	Non-ED controls
Self-reported diagnosis of AN	Yes (current)	Yes (current)	Yes (current)	Yes (past)	No (including any other EDs)
BMI below 18.5 kg/m^2 over past 3 months	Yes	No	No	No	No
Presence of behavioral ED symptoms[b]	Yes	Yes	No	No	No
Presence of psychological ED symptoms[b]	Yes	Yes	Yes	No	No

Abbreviations: AN = anorexia nervosa, AN-C = currently ill AN, AN-FR = fully recovered AN, AN-PR = partially recovered AN, AN-WR = weight-restored AN, BMI = body mass index, ED = eating disorder, Non-ED controls = non-eating disorder controls.
[a]AN-WR classification criteria were created for this study. All other group classifications were based on modified recovery criteria from Bardone-Cone et al. (2010).
[b]As reported for the past 28 days.

TABLE 2 | Comparison of demographic characteristics across recovery groups.

	AN-C	AN-WR	AN-PR	AN-FR	Non-ED controls	Whole sample	*p*
Age	28.26 (*10.31*)	28.08 (*8.86*)	29.68 (*8.10*)	29.68 (*9.34*)	31.30 (*10.81*)	29.56 (*10.02*)	0.16
Ethnicity							0.05
Aboriginal or Torres Strait Islander	4.05 (3)	4.44 (4)	0 (0)	0 (0)	0.78 (1)	2.4 (8)	
Caucasian	89.19 (66)	77.78 (70)	89.47 (17)	95.45 (21)	75.19 (97)	81.1 (271)	
Asian	4.05 (3)	5.56 (5)	5.26 (1)	0 (0)	13.18 (17)	7.8 (26)	
African	0 (0)	4.44 (4)	0 (0)	0 (0)	0.78 (1)	1.5 (5)	
Other	2.7 (2)	7.78 (7)	5.26 (1)	4.54 (1)	10.08 (13)	7.2 (24)	
Australian resident	90.54 (67)	92.22 (83)	89.47 (17)	100 (22)	97.67 (126)	94.3 (315)	0.11
English as primary language	94.59 (70)	96.67 (87)	100 (19)	100 (22)	93.02 (120)	95.2 (318)	0.42
Marital status							0.04
Not in a relationship	63.51 (47)	50 (45)	26.32 (5)	36.36 (8)	37.98 (49)	46.1 (154)	
In a relationship	20.27 (15)	27.78 (25)	47.37 (9)	36.36 (8)	29.46 (38)	28.4 (95)	
Married	9.46 (7)	13.33 (12)	21.05 (4)	18.18 (4)	28.68 (37)	19.2 (64)	
Separated or divorced	6.76 (5)	6.67 (6)	5.26 (1)	9.09 (2)	3.88 (5)	5.7 (19)	
Widowed	0 (0)	1.11 (1)	0 (0)	0 (0)	0 (0)	0.3 (1)	
Preferred not to answer	0 (0)	1.11 (1)	0 (0)	0 (0)	0 (0)	0.3 (1)	
Sexuality							0.50
Gay/Lesbian	4.05 (3)	3.33 (3)	0 (0)	0 (0)	2.33 (3)	2.7 (9)	
Bisexual	16.22 (12)	18.89 (17)	10.53 (2)	13.64 (3)	9.31 (12)	13.8 (46)	
Asexual	1.35 (1)	2.22 (2)	0 (0)	4.54 (1)	0 (0)	1.2 (4)	
Heterosexual	74.32 (55)	68.89 (62)	78.95 (15)	68.18 (15)	82.17 (106)	75.7 (253)	
Prefer to self-describe	2.70 (2)	3.33 (3)	5.26 (1)	13.64 (3)	4.65 (6)	4.5 (15)	
Prefer not to answer	1.35 (1)	3.33 (3)	5.26 (1)	0 (0)	1.56 (2)	2.1 (7)	

Note: Data reported as *M* (*SD*) or % (*n*) where relevant. The *p* values < 0.01 should be considered statistically significant for all variables except age after using the Bonferroni correction. Age is significant at $p < 0.05$.
Abbreviations: AN = anorexia nervosa, AN-C = currently ill AN, AN-FR = fully recovered AN, AN-PR = partially recovered AN, AN-WR = weight-restored AN, BMI = body mass index, Controls = non-eating disorder controls, ED = eating disorder, *M* = mean scores, *n* = number of participants, SD = standard deviation.

option of entering a reimbursement lottery at the completion of the survey to receive one of five AUS $100 gift vouchers.

2.3 | Measures

2.3.1 | Eating Disorders Examination Questionnaire (EDE-Q)

Psychological and behavioral ED symptoms were measured using the EDE-Q 6.0, a 28-item self-report measure used to assess the frequency and severity of ED psychopathology and behaviors over the past 28 days, on a 7-point Likert scale (Fairburn and Beglin 2008). Using 22 items, the EDE-Q consists of four subscales: restraint, eating concern, shape concern, and weight concern; and a global score calculated by averaging the four subscales. Global and subscale scores range from zero to six, with higher scores indicating higher ED symptomatology. Additionally, six items are behavioral frequency items across the past 28 days which are not included in the subscale scoring (e.g., "How many times have you eaten what other people would regard as an unusually large amount of food (given the circumstances)?"). Items of behavioral frequency for self-induced vomiting, laxative use, fasting, and binge eating were used in this study to categorize AN groups as detailed in Section 2.1. High internal consistency has been found for each subscale of the EDE-Q ($\alpha = 0.84$, 0.93, 0.89, and 0.78 for restraint, shape concern, weight concern, and eating concern, respectively). In this study, internal consistency for the global score was excellent ($\alpha = 0.97$), while the subscales exhibited good-to-excellent consistency ($\alpha = 0.91$, 0.94, 0.89, and 0.89, respectively as above). Test–retest reliability is also

high for all subscales ($p < 0.001$ over a 2-week period) (Luce and Crowther 1999).

2.3.2 | Self-Concept and Identity Measure (SCIM)

Identity functioning was measured using the SCIM, a 27-item self-report measure used to assess dimensions of identity functioning (Kaufman, Cundiff, and Crowell 2015). The SCIM consists of three subscales; *consolidated* identity (i.e., a clear, cohesive sense of identity), *disturbed* identity (i.e., identity confusion, fragmentation or discontinuity), and *lack of identity* (i.e., sense of emptiness). The SCIM has shown high internal consistency ($\alpha = 0.89$) and good test–retest reliability ($\alpha = 0.93$; Kaufman, Cundiff, and Crowell 2015). This study had acceptable internal consistency for the total SCIM score ($\alpha = 0.69$), good internal consistency for the *consolidated* and *disturbed* subscales ($\alpha = 0.82$ and 0.87, respectively) and excellent internal consistency for the *lack of identity* subscale ($\alpha = 0.93$). For consistency across all scales, items on the *consolidated identity* subscale were reverse scored to create the *consolidated* (*reverse*) subscale. Items on all scales were then averaged to generate the three subscale scores. For *consolidated* (*reverse*), *disturbed* and *lack of identity* subscales, higher scores indicate poorer identity functioning. The total identity functioning score is generated by averaging scores of the *consolidated* (*reverse*) subscale with scores on the *disturbed* and *lack of identity* subscales. Higher total identity functioning scores indicated poorer overall identity functioning. Responses are provided by indicating how much participants agree or disagree with self-report statements (e.g., "I feel lost when I think about who I am"), rated on a 7-point Likert scale from 1 (*strongly disagree*) to 7 (*strongly agree*).

2.4 | Statistical Analyses

Statistical analyses were conducted using SPSS (Version 27; IBM 2020). To address the hypothesis predicting overall identity functioning differences between AN-C, AN-WR, and AN-PR, AN-FR and non-ED controls, SCIM total scores were compared between groups using a one-way ANOVA. To investigate the facets of identity functioning (*consolidated*, *disturbed*, *and lack of identity*) between each group, SCIM scores on the three subscales were compared between groups using a one-way multivariate analysis of variance (MANOVA). Due to significant assumption violations for normality on the SCIM *disturbed* and *lack of identity* subscales and for homogeneity of variance on the SCIM *lack of identity* subscale, the conservative Pillai's Trace was employed. The exploratory analyses comparing identity functioning between the AN groups was undertaken with follow-up univariate ANOVAs on each SCIM subscale (*consolidated identity*, *disturbed identity*, and *lack of identity*). Due to the assumption of homogeneity of variance being violated on the SCIM *lack of identity* subscale, the conservative *Welch's F* was used along with Games–Howell post hoc tests due to the uneven sample sizes between groups. Bonferroni correction was utilized for the overall identity functioning ANOVA and the follow-up ANOVAs on each SCIM subscale, with an adjusted α-level of $(0.05/4) = 0.013$. Effect sizes were measured using partial η^2 for the MANOVA and η^2 for all ANOVAs ($\eta^2 = 0.01$ indicates a small effect, $\eta^2 = 0.06$ indicates a medium effect, and $\eta^2 = 0.14$ indicates a large effect) (Cohen 2013). For post hoc tests, an alpha level of 0.01 was used to account for multiple comparisons due to the Bonferroni correction being overly stringent (Perneger 1998).

Group comparisons on participant demographics were conducting using a one-way analysis of variance (ANOVA) to analyze age and Pearson chi-squares for ethnicity, residence, language, marital status, and sexuality. Bonferroni correction was utilized for the chi-squares, with an adjusted α-level of $(0.05/5) = 0.01$. Clinical characteristics (EDE-Q and BMI) were compared between groups using one-way ANOVAs.

3 | Results

3.1 | Group Comparisons of Demographic and Clinical Characteristics

Demographic comparisons (presented in Table 2) indicated groups did not differ significantly on any of the demographic variables assessed (age, ethnicity, residence, language, marital status, or sexuality). Clinical characteristics are presented in Table 3 (EDE-Q subscale scores and BMI were used to categorize groups and as such significant results were expected with the details provided below). The AN-C and AN-WR groups significantly differed from AN-FR and non-ED controls on all EDE-Q subscales and Global scale and differed from the AN-PR group on the EDE-Q Restraint subscale and Global scale. The AN-PR group significantly differed from the AN-FR and non-ED controls on all EDE-Q subscales. The AN-FR and non-ED controls did not significantly differ on any EDE-Q subscales or on the Global scale. Regarding BMI, the AN-C group significantly differed from all other AN groups, while no other significant differences between the remaining AN groups were found.

3.2 | Group Comparisons of Identity Variables

Results for the group comparisons are presented in Table 4 and group mean scores are presented visually in Figure 1. The ANOVA measuring total identity functioning differences among the AN recovery groups revealed statistically significant differences among the five groups, *Welch's* F $(4, 72.97) = 32.95$, $p < 0.001$. The MANOVA measuring subscale identity functioning differences among the AN recovery groups demonstrated a significant group effect for SCIM scores, F $(4, 987) = 11.01$, $p < 0.001$, $\eta_p^2 = 0.12$. The follow-up ANOVAs revealed statistically significant differences among the five groups on *consolidated* identity, *Welch's* F $(4, 74.28) = 19.94$, $p < 0.001$, *disturbed* identity, *Welch's* F $(4, 72.59) = 17.02$, $p < 0.001$, and *lack of identity*, *Welch's* F $(4, 72.48) = 40.14$, $p < 0.001$.

Post hoc tests showed overall identity functioning (SCIM Total) was significantly poorer in the AN-C group as compared to AN-PR ($p < 0.001$), AN-FR ($p < 0.001$), and non-ED controls ($p < 0.001$), and in AN-WR as compared to AN-FR ($p = 0.003$), and non-ED controls ($p < 0.001$). For the subscales, poorer mean consolidated identity scores were found in the AN-C group compared with AN-PR ($p < 0.001$), AN-FR ($p < 0.001$), and non-ED controls ($p < 0.001$), and in the AN-WR group

TABLE 3 | Comparison of clinical characteristics across recovery groups.

	AN-C	AN-WR	AN-PR	AN-FR	Non-ED controls			
	M (SD)	*M* (SD)	*M* (SD)	*M* (SD)	*M* (SD)	*F*	*p*	η^2
EDE-Q restraint	4.02 (1.57)[a]	3.64 (1.70)[a]	2.02 (1.09)[b]	0.50 (0.66)[c]	0.59 (0.72)[c]	127.89	<0.001	0.61
EDE-Q eating concern	3.58 (1.40)[a]	3.13 (1.30)[a]	1.84 (1.16)[a]	0.37 (0.44)[b]	0.29 (0.38)[b]	175.84	<0.001	0.68
EDE-Q shape concern	4.56 (1.47)[a]	4.72 (1.14)[a]	3.98 (1.11)[a]	1.38 (0.94)[b]	1.45 (1.00)[b]	153.41	<0.001	0.65
EDE-Q weight concern	4.33 (1.47)[a]	4.45 (1.20)[a]	3.87 (0.95)[a]	1.39 (0.88)[b]	1.24 (0.90)[b]	154.73	<0.001	0.65
EDE-Q global	4.12 (1.28)[a]	4.00 (1.16)[a]	2.93 (0.84)[b]	0.91 (0.61)[c]	0.89 (0.60)[c]	210.93	<0.001	0.72
BMI 3 months	16.04 (1.70)[a]	23.04 (4.55)[b]	22.08 (3.47)[b]	21.91 (3.15)[b]	23.40 (4.25)[b]	49.80	<0.001	0.38

Note: Mean values not sharing the same superscript letters are significantly different at $p < 0.05$.
Abbreviations: AN-C = currently ill AN, AN-FR = fully recovered AN, AN-PR = partially recovered AN, AN-WR = weight-restored AN, BMI 3 months = lowest body mass index over the past 3 months, EDE-Q = Eating Disorder Examination Questionnaire, *F* = ANOVA *F* test reported, Non-ED controls = non-eating disorder controls, η^2 = eta squared.

as compared no non-ED controls ($p < 0.001$). Disturbed identity mean scores were significantly worse for the AN-C compared with AN-PR ($p = 0.006$), AN-FR ($p = 0.006$), and non-ED controls ($p < 0.001$), and for the AN-WR group as compared to non-ED controls ($p < 0.001$). Finally, lack of identity mean scores were also significantly worse for the AN-C group as compared to AN-PR ($p = 0.003$), AN-FR ($p < 0.001$), and non-ED Controls ($p < 0.001$), and for the AN-WR group as compared to both AN-FR ($p < 0.001$), and non-ED controls ($p < 0.001$).

4 | Discussion

The aim of this study was to examine overall identity functioning and facets (*consolidated identity*, *disturbed identity*, and *lack of identity*) between women at different AN illness and recovery stages (AN-C, AN-WR, AN-PR, AN-FR), and non-ED controls. In line with the proposed hypothesis, overall identity functioning was poorer in AN-C and AN-WR groups compared with the AN-FR and non-ED controls. Unexpectedly, however, the AN-PR differed from the AN-C group and did not differ from the AN-FR or non-ED control groups. A similar pattern of results was observed for each of the three SCIM subscales (*consolidated*, *disturbed*, and *lack of identity*).

The finding that those currently ill and weight-restored showed poorer overall identity functioning than those with no history of an ED supports the AN theoretical frameworks' proposal that identity disturbance may be a feature of AN (Amianto et al. 2016; Bruch 1982; Casper 1983; Garfinkel and Garner 1983; Goodsitt 1997; Oldershaw, Startup, and Lavender 2019). This result is also consistent with the existing literature on AN and identity (e.g., Bers, Blatt, and Dolinsky 2004; Stein and Corte 2007; Verschueren et al. 2017). It has also been proposed that the impacts of identity disturbance itself may contribute to maintenance of AN symptoms (Amianto et al. 2016). Specifically these impacts of identity disturbance include: deep psychological discomfort related to lacking a sense of self, emotion dysregulation, inability to integrate body image and physiology, and unhelpful cognitive and interpersonal patterns (Amianto et al. 2016). Thus, further empirical investigation may focus on clarifying developmental processes which may link identity disturbances with the onset or maintenance of AN.

Alternatively, these results may also be interpreted with the view that identity functioning could be impacted by the development of AN. Specifically, it may be that the onset of AN causes one's sense of self to be consumed by the illness. The qualitative literature on the phenomenon known as the *AN identity*—a process in which one's identity becomes merged with AN over the course of the illness—appears to provide support for this interpretation (Broomfield, Rhodes, and Touyz 2021; Bulik and Kendler 2000; Higbed and Fox 2010; O'Connell 2021; Voswinkel et al. 2021; Weaver, Wuest, and Ciliska 2005; Williams, King, and Fox 2016). The duration of one's illness may also contribute to the severity of one's identity disturbance as the longer the illness goes on, the more engrained the *AN identity* may become.

Further, the finding that identity functioning was significantly worse for those in the currently ill and weight-restored AN illness states compared with fully recovered individuals provides tentative empirical results consistent with qualitative literature on recovery from AN (e.g., Dawson, Rhodes, and Touyz 2014; Lamoureux and Bottorff 2005; Williams, King, and Fox 2016). Specifically, it has been proposed that changes in identity functioning may be crucial in the recovery process in AN (Broomfield, Rhodes, and Touyz 2021; Conti 2018; Dawson, Rhodes, and Touyz 2014; Ison and Kent 2010; Lamoureux and Bottorff 2005; Weaver, Wuest, and Ciliska 2005; Williams, King, and Fox 2016). For instance, research has suggested that in order to achieve

TABLE 4 | Comparisons of identity variables across recovery groups.

	AN-C	AN-WR	AN-PR	AN-FR	Non-ED Controls			
	M (SD)	*M* (SD)	*M* (SD)	*M* (SD)	*M* (SD)	*F*	*p*	η^2
SCIM total	91.49 (26.58)[a]	81.64 (25.91)[ab]	64.16 (20.98)[bc]	58.00 (24.99)[c]	55.94 (19.65)[c]	32.95	<0.001	0.29
SCIM consolidated (reverse)	25.53 (9.63)[a]	21.34 (9.19)[ab]	16.68 (7.23)[bc]	15.50 (9.33)[bc]	14.65 (7.91)[c]	19.94	<0.001	0.20
SCIM disturbed	37.97 (11.78)[a]	35.74 (12.03)[ab]	28.00 (9.91)[bc]	27.41 (11.67) [bc]	26.95 (8.92)[c]	17.02	<0.001	0.17
SCIM lack of identity	27.99 (9.63)[a]	24.55 (9.28)[ab]	19.47 (7.81)[bc]	15.09 (8.27)[c]	14.33 (6.63)[c]	40.14	<0.001	0.33

Note: Mean values not sharing the same superscript letters are significantly different at $p < 0.01$ after using the Bonferroni correction.
Abbreviations: AN-C = currently ill AN, AN-FR = fully recovered AN, AN-PR = partially recovered AN, AN-WR = weight-restored AN, *F* = ANOVA *F* test reported, Non-ED controls = non-eating disorder controls, SCIM = Self-Concept and Identity Measure, η^2 = eta squared.

recovery, one must break free or let go of AN, a process which involves removing AN from one's identity (Conti 2018; Williams, King, and Fox 2016). Letting go of AN allows for the exploration of one's identity outside of the illness, leading to the *reclamation of the non-AN-centric self*, a process which has been noted to be essential in achieving recovery (Dawson, Rhodes, and Touyz 2014; Lamoureux and Bottorff 2005; Williams, King, and Fox 2016). Additional support for the assertion of identity processes being crucial to recovery comes from the finding that partially recovered and fully recovered AN individuals did not significantly differ in identity functioning from those with no history of an ED.

Of note, the finding that weight-restored individuals' identity functioning did not differ from those who were currently ill and was significantly worse compared with those who were fully recovered, holds implications for treatment. This finding suggests there is a meaningful difference between weight-restoration alone (AN-WR) and the cessation of ED behavior and psychological symptoms in addition to weight-restoration (AN-FR). This is crucial as it provides support for the notion that weight-restoration alone is not equivalent to achieving full recovery. Thus, this finding cautions against ending treatment after weight-restoration alone has been achieved and indicates instead that treatment should only conclude after a substantial reduction in ED behavioral and psychological symptoms.

The current findings showed no significant differences in identity functioning between those who were partially recovered and those who were fully recovered from AN. The overall pattern of results suggest that identity functioning may change incrementally throughout recovery, leading to similar levels of identity functioning between those in adjacent recovery states. As such, those who are currently ill and weight-restored from AN show comparable levels of identity functioning, as do those who are weight-restored and partially recovered, and those who are partially recovered and fully recovered. Therefore, subtle differences among adjacent groups may not have been detected in statistical comparisons. This result is support by the existing literature including a paper by Bardone-Cone et al. (2010) exploring how to define recovery from EDs. In this study, psychosocial functioning was examined across different ED recovery groups with results indicating partially recovered and fully recovered groups did not differ on psychosocial functioning. These findings suggested that despite remaining psychological ED symptoms, partially recovered individuals can have psychosocial functioning at similar levels to fully recovered and non-ED peers (Bardone-Cone et al. 2010). Further, in another study by Bardone-Cone (2012), no differences between partially and fully recovered groups were found regarding the amount of individuals who self-identified as recovered. This finding also suggests when enough components of recovery are in place (i.e., physical and behavioral symptoms changes), the *AN identity* may lose its hold and allow for identity functioning outside of AN.

This study was also the first to explore AN recovery groups differences on facets of identity functioning. The results suggest those who are currently ill and those who are weight-restored experience significant disturbances in all studied facets of identity functioning, including in struggling to form a cohesive identity, and in experiencing a fragmented sense of self, and in terms of feelings of being broken and empty. Differences in *lack of identity*

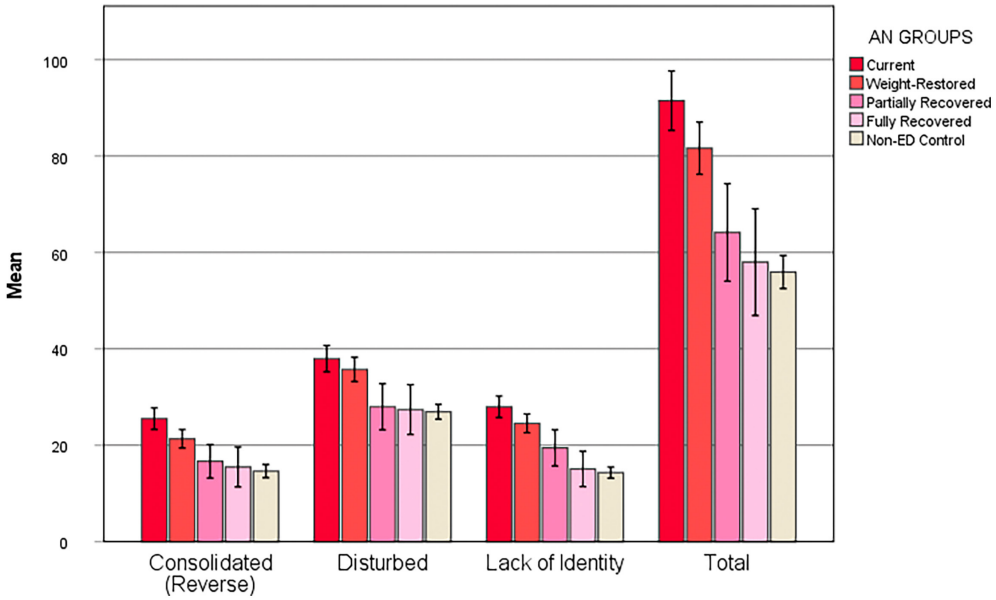

FIGURE 1 | Anorexia nervosa (AN) group mean scores for consolidated (reversed), disturbed, lack of identity, and total identity functioning subscales of the Self-Concept and Identity Measure (SCIM).

are particularly notable as Kaufman, Cundiff, and Crowell (2015) theorized *lack of identity* to be the most severe form of identity disturbance. While current research into identity functioning facets is limited, Malcolm et al. (2021) found that individuals with obsessive compulsive disorder or body dysmorphic disorder showed significantly more identity problems in *consolidated*, *disturbed*, and *lack of identity* than did healthy controls. This finding is in line with this study's results. Further, worse *lack of identity* levels in those with current and weight-restored AN compared with fully recovered further supports the AN qualitative literature notion of finding one's sense of self may be essential in achieving recovery (Dawson, Rhodes, and Touyz 2014; Lamoureux and Bottorff 2005; Williams, King, and Fox 2016).

4.1 | Clinical Implications

These findings have potential implications for further research into treatments for AN. Specifically, the finding that identity functioning differs among groups at different AN illness and recovery stage suggests a need to determine whether an increased focus on identity within treatment could bolster effectiveness or enhance early intervention. While common treatments for AN such as family based therapy for adolescents do involve discussions of identity, this is usually limited to externalizing the ED from the individual's identity (Rienecke and Le Grange 2022). Similarly, enhanced cognitive behavioral therapy (CBT-E) for adults has no formal discussion of identity built into the treatment (Fairburn 2008). Instead, it may be useful to research whether routinely exploring the individual's sense of self in the earlier stages of treatment may be helpful. Recovery from AN often involves a high amount of distress and resistance, partly as recovery often means letting go of one's current sense of identity which can be entwined with the illness such as through the *AN identity* (Broomfield, Rhodes, and Touyz 2021; Bulik and Kendler 2000; Conti 2018; Higbed and Fox 2010; Lamoureux and Bottorff 2005; Voswinkel et al. 2021; Williams, King, and Fox 2016). As such, dedicating treatment time to discussing identity changes and helping patients begin examining their sense of self beyond AN may be useful to ease this distress and initiate the process of letting go of AN. In particular, acceptance work, such as in acceptance commitment therapy (Hayes, Strosahl, and Wilson 2016), and focusing on integrating different aspects of a one's identity to form a more cohesive sense of self, as is done in schema therapy (Young, Klosko, and Weishaar 2003), may be beneficial. For individuals diagnosed with AN identified as experiencing severe identity functioning issues such as *disturbed identity* or *lack of identity*, treatment may be enhanced by including techniques to increase distress tolerance such as mindfulness and emotional regulation skills. Overall, further recognition and prioritization of identity focused work in the earlier stages of AN treatment may improve treatment effectiveness and warrants further investigation.

4.2 | Strengths, Limitations, and Suggestions for Future Research

This study has several key strengths. Notably, to our knowledge this is the first paper to examine identity functioning in AN across illness and recovery states, thus adding new depth to the existing literature on AN in this area. In addition, this study had a large overall sample size, and applied a rigorous exploration of AN illness and recovery states by extending the robust recovery criteria outlined by Bardone-Cone et al. (2010). This study also has some limitations. First, this study used self-reported online data which may have affected the results around group membership as self-reported diagnoses of AN were used. However, as group membership was not solely based on self-reported diagnosis but also on the Bardone-Cone et al. (2010) recovery criteria and EDE-Q scores, the impact of this has been mitigated to a certain extent. Second, this study lacks gender and ethnic generalizability. As we focused on

those who identified as women, the results may not generalize to individuals who do not identify as women. In addition, though we aimed to include individuals from different ethnicities, most of the sample was White (81.1%). Third, while the overall sample for this study is relatively large, there were smaller participant numbers for the AN-PR versus AN-FR groups (19 and 22, respectively) which may have impacted statistical power for these comparisons. Fourth, while this study utilized the recovery criteria described by Bardone-Cone et al. (2010), modifications to this criteria were made which could have affected the generalizability of results, in addition to the issue that the broader literature lacks an agreed upon definition of recovery. Finally, the cross-sectional nature of the study limits the conclusions which can be drawn specifically about the role of identity functioning in recovery from AN. Conducting this research remains an important first step, and future research is needed to examine these relationships and potential identity functioning changes longitudinally.

5 | Conclusion

This study provides the first empirical evidence to show differences in overall identity functioning and the specific identity functioning facets of *consolidated*, *disturbed*, and *lack of identity*, among individuals at different illness and recovery stages in AN. The findings suggest identity functioning may be a key feature of AN that differs among various illness and recovery stages. Further, differences in identity functioning between those currently ill and those who were weight-restored as compared to those who are fully recovered suggest that identity may be important in achieving recovery, making it a key target area in AN treatment to potentially improve treatment outcomes.

Author Contributions

Scarlett R. Croce: conceptualization, data curation, formal analysis, investigation, methodology, project administration, writing–original draft, writing–review and editing. **Amy C. Malcolm:** conceptualization, data curation, formal analysis, methodology, resources, supervision, validation, visualization, writing–review and editing. **Christina Ralph-Nearman:** conceptualization, methodology, resources, supervision, validation, visualization, writing–review and editing. **Andrea Phillipou:** conceptualization, methodology, project administration, resources, supervision, validation, visualization, writing–review and editing.

Acknowledgments

Scarlett R. Croce is supported by Swinburne University Postgraduate Research Award (SUPRA). A/Prof Andrea Phillipou is supported by National Health and Medical Research Council (NHMRC) Project Grant (CIA-GNT1159953). Dr Christina Ralph-Nearman is supported by the National Institute of Mental Health (NIMH) Grant (R15 MH121445), and from the National Institute of General Medical Sciences (KY-INBRE) Grant (P20GM103436-20). Open access publishing facilitated by Swinburne University of Technology, as part of the Wiley - Swinburne University of Technology agreement via the Council of Australian University Librarians.

Conflicts of Interest

The authors declare no conflicts of interest.

Data Availability Statement

The data can be requested from the corresponding author upon reasonable request.

References

Amianto, F., G. Northoff, G. Abbate Daga, S. Fassino, and G. A. Tasca. 2016. "Is Anorexia Nervosa a Disorder of the Self? A Psychological Approach." *Frontiers in Psychology* 7: 849. https://doi.org/10.3389/fpsyg.2016.00849.

Bardone-Cone, A. M. 2012. "Examining the Match Between Assessed Eating Disorder Recovery and Subjective Sense of Recovery: Preliminary Findings." *European Eating Disorders Review* 20, no. 3: 246–249. https://doi.org/10.1002/erv.1123.

Bardone-Cone, A. M., M. B. Harney, C. R. Maldonado, et al. 2010. "Defining Recovery From an Eating Disorder: Conceptualization, Validation, and Examination of Psychosocial Functioning and Psychiatric Comorbidity." *Behaviour Research and Therapy* 48, no. 3: 194–202. https://doi.org/10.1016/j.brat.2009.11.001.

Bers, S. A., S. J. Blatt, and A. Dolinsky. 2004. "The Sense of Self in Anorexia-Nervosa Patients." *Psychoanalytic Study of the Child* 59, no. 1: 294–315. https://doi.org/10.1080/00797308.2004.11800742.

Broomfield, C., P. Rhodes, and S. Touyz. 2021. "How and why Does the Disease Progress? A Qualitative Investigation of the Transition Into Long-Standing Anorexia Nervosa." *Journal of Eating Disorders* 9, no. 1: 103. https://doi.org/10.1186/s40337-021-00458-w.

Bruch, H. 1981. "Developmental Considerations of Anorexia Nervosa and Obesity." *Canadian Journal of Psychiatry* 26, no. 4: 212–217. https://doi.org/10.1177/070674378102600402.

Bruch, H. 1982. "Anorexia Nervosa: Therapy and Theory." *American Journal of Psychiatry* 139, no. 12: 1531–1538. https://doi.org/10.1176/ajp.139.12.1531.

Bruch, H., D. Czyzewski, and M. A. Suhr. 1994. *Conversations With Anorexics: Compassionate and Hopeful Journey Through the Therapeutic Process*. Maryland, US: Jason Aronson, Incorporated. https://books.google.com.au/books?id=-ymfJTVkDpcC.

Bulik, C. M., and K. S. Kendler. 2000. ""I Am What I (Don't) Eat": Establishing an Identity Independent of an Eating Disorder." *American Journal of Psychiatry* 157, no. 11: 1755–1760. https://doi.org/10.1176/appi.ajp.157.11.1755.

Carter, J. C., E. Blackmore, K. Sutandar-Pinnock, and D. B. Woodside. 2004. "Relapse in Anorexia Nervosa: A Survival Analysis." *Psychological Medicine* 34, no. 4: 671–679. https://doi.org/10.1017/s0033291703001168.

Casper, R. C. 1983. "Some Provisional Ideas Concerning the Psychologic Structure in Anorexia Nervosa and Bulimia." In *Anorexia Nervosa: Recent Developments in Research*, 387–392. New York: Alan R. Liss.

Cohen, J. 2013. *Statistical Power Analysis for the Behavioral Sciences*. New York: Routledge.

Conti, J. E. 2018. "Recovering Identity From Anorexia Nervosa: Women's Constructions of Their Experiences of Recovery From Anorexia Nervosa Over 10 Years." *Journal of Constructivist Psychology* 31, no. 1: 72–94. https://doi.org/10.1080/10720537.2016.1251366.

Croce, S. R., A. C. Malcolm, C. Ralph-Nearman, and A. Phillipou. 2024. "The Role of Identity in Anorexia Nervosa: A Narrative Review." *New Ideas in Psychology* 72: 101060. https://doi.org/10.1016/j.newideapsych.2023.101060.

Dawson, L., P. Rhodes, and S. Touyz. 2014. "Doing the Impossible." *Qualitative Health Research* 24, no. 4: 494–505. https://doi.org/10.1177/1049732314524029.

Erikson, E. H. 1968. *Identity: Youth and Crisis*. New York, NY: Norton.

Fairburn, C., and S. Beglin. 2008. "Eating Disorder Examination Questionnaire (EDE-Q 6.0)." *Cognitive Behavior Therapy and Eating Disorders* 309: 313. https://doi.org/10.1037/t03974-000.

Fairburn, C. G. 2008. *Cognitive Behavior Therapy and Eating Disorders*. New York: Guilford Publications. https://books.google.com.au/books?id=KRvAlB3l8-MC.

Ferrer-Wreder, L., and J. Kroger. 2019. *Identity in Adolescence*. London: Routledge. https://doi.org/10.4324/9781315165806.

Garfinkel, P., and D. Garner. 1983. "The Multidetermined Nature of Anorexia Nervosa." In *Anorexia Nervosa: Recent Developments in Research*, edited by P. L. Darby, P. E. Garfinkel, D. M. Garner, and D. V. Coscina, 3–14. New York: A. R. Liss.

Goodsitt, A. 1997. "Eating Disorders: A Self-Psychological Perspective." In *Handbook of Treatment for Eating Disorders*, 2nd ed., 205–228. New York: The Guilford Press.

Hayes, S. C., K. D. Strosahl, and K. G. Wilson. 2016. "Acceptance and Commitment Therapy." In *The Process and Practice of Mindful Change*, 2nd ed. New York: Guilford Publications. https://books.google.com.au/books?id=RvIxDwAAQBAJ.

Higbed, L., and J. R. E. Fox. 2010. "Illness Perceptions in Anorexia Nervosa: A Qualitative Investigation." *British Journal of Clinical Psychology* 49, no. 3: 307–325. https://doi.org/10.1348/014466509x454598.

IBM Corp. Released 2020. IBM SPSS Statistics for Windows, Version 27.0. Armonk, New York: IBM Corp.

Ison, J., and S. Kent. 2010. "Social Identity in Eating Disorders." *European Eating Disorders Review* 18, no. 6: 475–485. https://doi.org/10.1002/erv.1001.

Kaufman, E. A., J. M. Cundiff, and S. E. Crowell. 2015. "The Development, Factor Structure, and Validation of the Self-Concept and Identity Measure (SCIM): A Self-Report Assessment of Clinical Identity Disturbance." *Journal of Psychopathology and Behavioral Assessment* 37, no. 1: 122–133. https://doi.org/10.1007/s10862-014-9441-2.

Lamoureux, M. M. H., and J. L. Bottorff. 2005. ""Becoming the Real Me": Recovering From Anorexia Nervosa." *Health Care for Women International* 26, no. 2: 170–188. https://doi.org/10.1080/07399330590905602.

Luce, K. H., and J. H. Crowther. 1999. "The Reliability of the Eating Disorder Examination—Self-Report Questionnaire Version (EDE-Q)." *International Journal of Eating Disorders* 25, no. 3: 349–351. https://doi.org/10.1002/(SICI)1098-108X(199904)25:3<349::AID-EAT15>3.0.CO;2-M.

Malcolm, A., T. Pikoos, D. J. Castle, I. Labuschagne, and S. L. Rossell. 2021. "Identity and Shame in Body Dysmorphic Disorder as Compared to Obsessive-Compulsive Disorder." *Journal of Obsessive-Compulsive and Related Disorders* 31: 100686. https://doi.org/10.1016/j.jocrd.2021.100686.

Mond, J. M., P. J. Hay, B. Rodgers, C. Owen, and P. J. Beumont. 2004. "Validity of the Eating Disorder Examination Questionnaire (EDE-Q) in Screening for Eating Disorders in Community Samples." *Behaviour Research and Therapy* 42, no. 5: 551–567.

O'Connell, L. 2021. "Being and Doing Anorexia Nervosa: An Autoethnography of Diagnostic Identity and Performance of Illness." *Health* 27: 263–278. https://doi.org/10.1177/13634593211017190.

Oldershaw, A., H. Startup, and T. Lavender. 2019. "Anorexia Nervosa and a Lost Emotional Self: A Psychological Formulation of the Development, Maintenance, and Treatment of Anorexia Nervosa." *Frontiers in Psychology* 10: 219. https://doi.org/10.3389/fpsyg.2019.00219.

Perneger, T. V. 1998. "What's Wrong With Bonferroni Adjustments." *BMJ* 316, no. 7139: 1236–1238. https://doi.org/10.1136/bmj.316.7139.1236.

Rienecke, R. D., and D. Le Grange. 2022. "The Five Tenets of Family-Based Treatment for Adolescent Eating Disorders." *Journal of Eating Disorders* 10, no. 1: 60. https://doi.org/10.1186/s40337-022-00585-y.

Stein, K. F., and C. Corte. 2007. "Identity Impairment and the Eating Disorders: Content and Organization of the Self-Concept in Women With Anorexia Nervosa and Bulimia Nervosa." *European Eating Disorders Review* 15, no. 1: 58–69. https://doi.org/10.1002/erv.726.

Verschueren, M., K. Luyckx, E. A. Kaufman, et al. 2017. "Identity Processes and Statuses in Patients With and Without Eating Disorders." *European Eating Disorders Review* 25, no. 1: 26–35. https://doi.org/10.1002/erv.2487.

Voswinkel, M. M., C. Rijkers, J. J. M. Van Delden, and A. A. Van Elburg. 2021. "Externalizing Your Eating Disorder: A Qualitative Interview Study." *Journal of Eating Disorders* 9, no. 1: 128. https://doi.org/10.1186/s40337-021-00486-6.

Walsh, B. T., T. Xu, Y. Wang, E. Attia, and A. S. Kaplan. 2021. "Time Course of Relapse Following Acute Treatment for Anorexia Nervosa." *American Journal of Psychiatry* 178, no. 9: 848–853. https://doi.org/10.1176/appi.ajp.2021.21010026.

Weaver, K., J. Wuest, and D. Ciliska. 2005. "Understanding Women's Journey of Recovering From Anorexia Nervosa." *Qualitative Health Research* 15, no. 2: 188–206. https://doi.org/10.1177/1049732304270819.

Williams, K., J. King, and J. R. E. Fox. 2016. "Sense of Self and Anorexia Nervosa: A Grounded Theory." *Psychology and Psychotherapy: Theory, Research and Practice* 89, no. 2: 211–228. https://doi.org/10.1111/papt.12068.

Young, J. E., J. S. Klosko, and M. E. Weishaar. 2003. *Schema Therapy*. Vol. 254, 653–658. New York: Guilford.