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FACTORS ASSOCIATED WITH BODY DISSATISFACTION AND

Abstract

Objective: In this study we examined developmentally appropriate factors that may be associated with body dissatisfaction and disordered eating in women in midlife. **Method:** Participants were a community sample of 200 women aged 35-65. Outcome measures were the Weight Concern, Shape Concern, Eating Concern and Restraint subscales of the Eating Disorder Examination – Questionnaire (EDE-Q). Independent variables were Importance of Appearance, Importance of Function, Cognitive Reappraisal (of ageing changes to appearance), and Body-Related Self-Care. **Results:** Importance of Appearance, Self-Care, and Body Mass Index (BMI) accounted for variance in regression modelling for all EDE-Q variables. In addition, Cognitive Reappraisal was related to Shape Concern and Restraint, and Importance of Function and Age were also associated with Restraint. Participants identified as probable eating disorder cases had significantly higher BMI, Importance of Appearance and Function, and significantly lower Cognitive Reappraisal, and Self-Care scores than participants identified as non-cases. **Conclusion:** This study provides support for the role of developmentally relevant factors in body dissatisfaction and disordered eating in midlife women.

Factors Associated with Body Dissatisfaction and Disordered Eating in Women in Midlife

In this study, we examined factors associated with body dissatisfaction and disordered eating in women in midlife (here considered to be 35-65 years). A growing body of research demonstrates that body dissatisfaction and disordered eating remain at high levels in midlife. A recent study reported that 43% of a sample of women with a median age of 51 were dissatisfied with their bodies.¹ McLaren and Kuh² found that women aged 54 reported being most dissatisfied with their body currently, compared with retrospective reports of body dissatisfaction from their adolescence, 20s, 30s and 40s, and nearly 80% of the sample wanted to lose weight. Women in midlife have also been found to rate their ideal figure as smaller than their current figure^{3,4} and desire to be thinner despite being in the healthy weight range.⁵ Furthermore, cross-sectional research consistently indicates that, in women, body dissatisfaction does not diminish from young adulthood to late adulthood,^{6,7,8,9} with some research showing higher levels of body dissatisfaction in midlife compared with younger and older cohorts.¹⁰

Women in midlife also report disordered eating. Research findings are mixed regarding the stability of disordered eating symptoms across adult years. Levels of bulimic symptomatology in a midlife sample have been reported to be similar to those in younger samples.¹¹ A Canadian study¹² found that in women concerned about their weight, those aged 45 to 64 were more preoccupied with food than were women younger than 45. In contrast, a longitudinal study showed decreases in eating disorder attitudes, dieting frequency and binge eating from college age to 20 years follow-up.¹³

Regardless of the extent of change over time, disordered eating behaviors occur frequently in women in midlife. Hay, Mond, Buttner and Darby¹⁴ found that regular episodes of

bingeing, purging and strict dieting or fasting were reported by 18.5%, 21.2% and 17.1% respectively in men and women aged 35-44 years, and by 17.4%, 28.6% and 21.4% respectively in men and women aged 45-54 years. In addition, diagnoses of eating disorders with onset in midlife are being reported,^{15, 16} with some research showing a higher prevalence of binge eating disorder in women in midlife (8.5%) compared with early adulthood (3.3%).¹⁷

Although body dissatisfaction and disordered eating occur frequently in women in midlife, little is known about variables associated with these attitudes and behaviors. This study attempts to contribute to filling this gap in the literature. It has been assumed that factors related to body dissatisfaction and disordered eating in midlife are the same as for young women but this may not be the case as the meaning and perception of the body may change with age.¹⁸ For example, a decrease in importance of appearance with age has been found in some studies,^{19, 20} although not in others.^{8, 9, 10} Furthermore, in a study of body satisfaction in midlife and older adults, Reboussin et al.²¹ interpret their findings to indicate that body function may be valued more highly than appearance in midlife. This change in the meaning of the body in midlife is consistent with findings in qualitative studies of a shift in emphasis from outward appearance to an inner sense of self, as well as a focus on what the body can do, and physical health.^{22, 23} Consequently, in our study of factors associated with body dissatisfaction and disordered eating in midlife we examined perceived importance of appearance and body function.

Developmental factors are also likely to contribute to body dissatisfaction and disordered eating in midlife. Some of these may operate in a protective fashion. Having children, being in a stable long-term relationship and having a secure career may divert attention away from body image and eating, or reduce pressure to attain the thin ideal appearance.²⁴ Alternatively, midlife developmental factors may be associated with increased risk. Changes in appearance as a consequence of ageing, such as the emergence of wrinkles, hair loss, and changes to body fat

distribution, are typically viewed as having a negative impact on appearance.²⁵ Given the role of body mass as a risk factor for body dissatisfaction²⁶ and the increases in weight that typically occur with age,^{27, 28} it is not surprising that concern about ageing-related changes has been found to be related to body dissatisfaction and to drive for thinness.^{29, 30}

It is possible that women in midlife who do not experience elevated body dissatisfaction, relative to those who do, may be better able to adjust to their changing bodies.^{22, 23} Supporting this proposition is research showing lower levels of body dissatisfaction associated with measures of cognitive, or secondary control.^{9, 20} This form of control has been defined as accepting circumstances as they are and adjusting the self to fit in with the environment.³¹ For the purposes of this research, self adjustment refers to the cognitive process of changing expectations, reappraising, or accepting one's appearance. This adjustment, termed cognitive reappraisal, may offer protection against body dissatisfaction by promoting acceptance of one's body. In particular, using reappraisal strategies may moderate the effect that appearance changes related to ageing have on body dissatisfaction. Webster and Tiggemann⁹ observed that women aged 50-65 years had higher levels of cognitive control in relation to appearance than women in both 20-34 and 35-49 year age groups. This is consistent with the suggestion by Wilcox^{8 p. 561} that "as individuals age... they become more realistic [about their appearance] ... and adjust their standards". Similarly, women in midlife may use cognitive reappraisal to augment pressures to achieve the thin ideal when other roles assume greater importance, such as having children, attending to family needs and following a career path. Thus, in this research we examined the relationship of cognitive reappraisal with body dissatisfaction and disordered eating.

Although ageing may be protective for women in relation to body dissatisfaction and eating problems due to a broader range of interests, the influence of role demands on self-care for women in midlife may counter this protection and contribute to these problems occurring in this

period. In midlife, role demands tend to increase with high family and work commitments.^{32, 33, 34}

These demands can impinge on involvement in health care practices,³⁵ and may reduce body-directed self-care. Therefore, we proposed that reduced engagement in self-care practices would be associated with body dissatisfaction and disordered eating in women in midlife.

In this study, we aimed to examine factors related to body dissatisfaction and disordered eating in a community sample of women in midlife. We hypothesised that body dissatisfaction and disordered eating symptoms would be (1) positively related to importance of appearance but negatively related to importance of body function and cognitive reappraisal, (2) negatively related to self-care, (3) positively related to body mass index (BMI), and (4) unrelated to age.

Method

Participants

Participants were 200 women aged 35-65 from Victoria, Australia. Participants responded to advertisements placed in community sections of local newspapers, on noticeboards of community organisations and at community or interest groups calling for volunteers for a study exploring experiences of body image and eating concerns in women in midlife. Most participants were born in Australia or New Zealand (86.5%), the majority were in a relationship (69.5%) and had one or more child (76.5%). Approximately three-quarters of participants were in full (44.0%) or part-time (28.0%) employment. The remainder were engaged in home duties (9.5%), students (9.0%), unemployed or receiving benefits (6.5%), or did not specify (3.0%).

Assessment Measures

Body Dissatisfaction and Disordered Eating

Body dissatisfaction and disordered eating were assessed with the Eating Disorder Examination - Questionnaire (EDE-Q)³⁶ a 36 item self-report questionnaire with four subscales

measuring shape concern, weight concern, eating concern and restrained eating. Higher scores (range 0-6) indicate higher levels of disordered eating symptomatology. A question was added to assess motivation for exercise.³⁷ Responses for this question were on a scale from 1 (always, or solely for weight or shape purposes) to 5 (never, or not at all for weight or shape purposes). The EDE-Q has sound psychometric properties³⁸ and has been validated as a screening instrument for Australian adult women.³⁹ In this research Cronbach's alpha for each subscale was acceptable (Shape Concern = .91; Weight Concern = .84; Eating Concern = .84; Restraint = .79).

Importance of Physical Appearance and Body Function

Importance of Appearance and Importance of Function were assessed using a modified version of the Self-Objectification Questionnaire.⁴⁰ The body attributes from this questionnaire were listed and participants were asked to rank the importance to their self-concept of the 5 appearance-related and 5 function-related body attributes on a 5-point likert scale from 1 (not at all important) to 5 (extremely important). In this study, a Principal Components Analysis (PCA) supported this factor structure, except for the attribute "firm/toned muscles" which loaded with the function-related items, not the appearance-related items. Subscale scores (range 1-5) were calculated to reflect this factor structure. Cronbach's alpha was .76 for Importance of Appearance and .81 for Importance of Function.

Cognitive Reappraisal

Cognitive reappraisal, the degree to which participants changed their expectations of their body or accepted age-related changes to their appearance, was assessed with the Perception of Ageing Related Changes to Appearance Scale (Cognitive Reappraisal) developed for this research (see Appendix for scale items). Initially, a pool of 14 items assessing perceptions of age-related body and appearance changes was compiled. Participants rated the extent of their agreement or disagreement with the items on a 5-point scale from 1 (strongly disagree) to 5

(strongly agree). Higher scores indicate higher cognitive reappraisal. A PCA on the 14 items was performed. It revealed four components with eigenvalues greater than one. However, the scree plot showed a clear break after the first component and one component was retained. One item did not load on this component, and two other items had loadings less than .45. In addition, these three items had low item-total correlations, from .25 to .43, and were subsequently removed from the scale, leaving an 11 item measure with a score range of 1-5. Cronbach's alpha was an acceptable .82.

Body-Related Self-Care

Body-related self-care was assessed with a 20 item measure developed for this study (see Appendix for scale items). Participants were asked to indicate on a 5-point Likert response scale the frequency with which they engaged in particular behaviours for the purpose of looking after or feeling good about their body. Responses ranged from 1 (never) to 5 (always). Higher scores indicated greater frequency of self-care behaviours. A PCA was conducted on the 20 self-care items. It showed that four components had eigenvalues greater than one, although the scree plot indicated that two components be retained. All of the items loaded strongly (above .45) on the first two components. Fifty-six percent of the variance was accounted for by these factors. A Varimax rotation was conducted to aid interpretation. Eleven items loaded on the first component which was titled Self-care - Physical (score range 11-55) and 9 items loaded on the second component, titled Self-care - Attitude (score range 9-45). Self-care - Physical assessed engagement in activities related to physical care for the body, and Self-care - Attitude assessed attitudes towards caring for the body. Cronbach's alpha was .91 for Self-care - Physical and .91 for Self-care - Attitude.

Demographics

Participants provided demographic information, including age, marital status, country of birth, occurrence of major illness, and height and weight, from which BMI (kg/m^2) was derived.

Procedure

The La Trobe University Human Ethics Committee approved the study. Participants could choose to complete the self-report measures using either a paper-based format (55% of respondents) or an online format (45% of respondents). Participation in the study was voluntary. Respondents could choose to remain anonymous, or could provide contact details if they wished to receive a report of the results of the study which was offered as an incentive to participate.

Data Analysis

Distributions of scale scores were examined for normality. The EDE-Q subscales Weight and Eating Concern and Restraint were positively skewed. These were transformed using square root, inverse and logarithm calculations respectively. For consistency and ease of interpretation the direction of the transformed Eating Concern subscale scores was reversed. Higher scores indicated higher eating concern. Each of the independent variables was normally distributed.

Relationships among body dissatisfaction and disordered eating and independent variables were explored with correlations and multiple regression analyses to determine the amount of variance in the EDE-Q subscales accounted for by the independent variables. All independent variables were included in each regression analysis regardless of their zero-order correlations with dependent measures to allow for comparisons across models. Independent samples t-tests assessed differences between probable eating disorder cases and non-cases.

Results

Participant's mean age was just below 50 (see Table 1). Sixty-five (32.5%) participants were aged 35-44, 77 (38.5%) were between 45-54, and 58 (29.0%) were aged 55-65. The mean

BMI (see Table 1) indicates that participants were on average overweight. Two (1%) participants had a BMI < 18.5, 77 (38.5%) were between 18.5-24.9, 60 (30.0%) were between 25-29.9, 38 (19.0%) between 30-24.9, 15 (7.5%) between 35-40 and 8 (4.0%) had a BMI > 40. These proportions are similar to current rates of overweight and obesity in Australian adult women⁴¹.

Seventy (35%) participants indicated that they had experienced a major physical or mental illness. Thirty-three (47.1%) experienced physical illness, 10 (14.3.0%) experienced physical and mental illness, 24 (34.3%) experienced mental illness (22 (31.4%) non-eating disorder, 1 (1.4%) eating disorder, and 1 (1.4%) unspecified mental illness) and 3 (4.3%) participants did not specify the illness.

Using criteria identified from Mond et al³⁹ to screen for probable eating disorders in community samples (a Global EDE-Q score of ≥ 2.3 in conjunction with the presence of objective binge episodes and/or exercise for weight or shape reasons at least once per week), 34 participants (17.0%) were identified as probable eating disorder cases. Thirteen (38.2%) of these were aged 35-44, 11 (32.4%) were 45-54, and 10 (29.4%) were 55-65. Independent samples t-tests (see Table 1) confirmed the separation of cases from non-cases, with significantly higher scores of large effect size on all EDE-Q subscale scores for cases compared with non-cases.

Untransformed means and 95% confidence intervals for dependent and independent variables are shown in Table 1. Mean scores for the complete sample on the EDE-Q subscales were consistent with an Australian community sample of women aged 18-42.⁴² Means for Importance of Appearance and Importance of Function correspond to ratings of being “moderately important” and “very important” respectively. The mean for Cognitive Reappraisal suggests mild agreement with the reappraisal statements. The mean scores indicated similar frequencies of engagement in self-care for the physical and attitude subscales, between “sometimes” and “often” for Self-care - Physical and “sometimes” for Self-care - Attitude.

Independent samples t-tests were conducted to compare the mean scores of probable eating disorder cases with non-cases (see Table 1). There was no significant difference between the groups for age. Significantly higher scores on BMI, Importance of Appearance and Importance of Function were found for the probable cases, compared with non-cases. In contrast, significantly lower scores on Cognitive Reappraisal, Self-Care - Physical and Self-Care - Attitude occurred in the probable cases group compared with non-cases group. The effect sizes of these differences were negligible for Age, moderate for Importance of Appearance and small for the remaining independent variables.

INSERT TABLE 1 ABOUT HERE

Correlations between assessed variables are shown in Table 2. As predicted in hypothesis 1, Importance of Appearance was positively related to Weight Concern, Shape Concern, Eating Concern and Restraint. Each of these correlations was large. Importance of Function was significantly positively correlated with only Shape Concern. In addition, small correlations were found between Cognitive Reappraisal and each of the EDE-Q subscales, with higher Cognitive Reappraisal related to lower levels of body dissatisfaction and disordered eating.

Correlations for self-care variables were consistent with predictions from hypothesis 2. Medium correlations were found between Self-care - Attitude and Weight Concern, Shape Concern and Eating Concern and a small correlation was found with Restraint. Self-care - Physical had large correlations with Weight and Shape Concern, a medium correlation with Eating Concern, and a small correlation with Restraint. These correlations indicated that higher body-related self-care was related to lower levels of body dissatisfaction and disordered eating.

A higher BMI was related to higher levels of symptomatology on each EDE-Q subscale, consistent with predictions for hypothesis 3. Correlations were small with Restraint, and medium

to large with Weight Concern, Shape Concern and Eating Concern. As predicted for hypothesis 4, age was not associated with any of the EDE-Q subscales.

INSERT TABLE 2 AND 3 ABOUT HERE

Outcomes from regression analyses are shown in Table 3. Body image attitudes, self-care, BMI and age accounted for between 26 and 51% of variance in the EDE-Q subscales. More variance was accounted for in the body dissatisfaction variables than for Eating Concern and Restraint. Accounting for unique and significant variance in both Weight and Shape Concern were BMI, Importance of Appearance, Self-care - Physical and Self-care - Attitude Cognitive Reappraisal also accounted for significant unique variance in Shape Concern. For Eating Concern, BMI, Importance of Appearance and Self-care - Physical explained a significant and unique proportion of variance. All independent variables accounted for unique and significant variance in Restraint. The direction of beta values in comparison with zero-order correlations suggests that suppression has occurred. Semi-partial correlations indicated that Importance of Appearance made the largest unique contribution to all of the EDE-Q subscales.

Conclusions

The present study sought to explore factors related to body dissatisfaction and disordered eating in midlife women. Consistent with our first hypothesis, in regression modelling importance of appearance was positively associated with each EDE-Q subscale, although importance of function was negatively associated with only restraint, and cognitive reappraisal was negatively related to shape concern and restraint but not weight or eating concern. Attitude towards self-care was negatively related to weight and shape concern as well as restraint, but not eating concern. Similarly, physical self-care was negatively related to weight, shape and eating concern. These were both in accord with our second hypothesis. In an unexpected finding, the

direction of the relationship between physical self-care and restraint, which was negative in the zero-order correlation, was positive when included in the regression model, such that high levels of physical self-care were associated with high restraint. In support of the third hypothesis, BMI was positively associated with all of the body dissatisfaction and disordered eating variables. As expected, age was not correlated with body dissatisfaction or disordered eating but when included in regression modelling accounted for significant variance in restraint. The pattern of results for the prediction of eating symptomatology show that high importance placed on appearance and high BMI contribute towards high levels of body dissatisfaction and disordered eating, while self-care and cognitive reappraisal were associated with low concerns.

The proportion of the sample identified as probable eating disorder cases was higher than in other research e.g.,³⁹ and may be inflated with possible non-cases, due to the effects of BMI. It has been suggested that it may be difficult to discriminate “overweight women with and without eating disorder symptoms on the basis of a limited assessment”.⁴³ Despite this potential inflation of cases, the differences between the probable eating disorder cases and non-cases were consistent with results from regression analyses. Scores for the probable eating disorder cases were higher than non-cases for all variables which were positively associated with eating disorder symptomatology and lower for variables negatively associated with symptomatology. The exception to this was the pattern of regression results for restraint, which indicate suppression.

The finding that importance of appearance was related to body dissatisfaction and disordered eating is consistent with studies with non-clinical undergraduate samples.^{44, 45} Previous literature^{19, 20} has suggested that importance of appearance may diminish with age, but in the current study of women aged 35-65 years, there was no relationship between age and appearance importance. Regardless of age, higher importance placed on appearance was related to higher levels of body dissatisfaction and disordered eating. When appearance is important to

self-concept, failure to meet internalised appearance ideals may have a greater negative impact on body image and disordered eating than when appearance is less important to self-concept.

Importance of function and cognitive reappraisal, the body image attitudes that we hypothesised would be negatively related to body dissatisfaction and disordered eating, did not have uniform relationships with the EDE-Q subscales. A number of possibilities may account for this. The distribution of scores for importance of function showed that 90% of participants rated body function as moderately, very, or extremely important, to their self-concept. This suggests that body function, as measured by items tapping into health, fitness, strength etc, is universally important to self-concept. A measure drawing on other attributes, such as movement, ability to engage in life, physical pleasure, and body-related accomplishments, as has been suggested in qualitative studies,^{22,23} may yield different results. Alternatively, the interpretation of the body function items may account for the findings. Some women may relate ostensibly functional body attributes to appearance. This is consistent with clinical impressions in which women who internalise the thin ideal connect slimness with being fitness, health, and having energy. Similarly, Saltonstall⁴⁶ observed that females often equated being thin with being healthy.

Consistent with studies by Webster and Tiggemann⁹ and Thompson et al.,²⁰ cognitive reappraisal, that is, altering expectations, or accepting changes to physical appearance that occur with age, was associated with lower levels of body image and eating concerns. Women who engage in cognitive reappraisal may do so because they do not place a great deal of importance on their appearance. In support of this contention, Tiggemann¹⁸ has considered cognitive reappraisal to be conceptually similar to importance of appearance. The cognitive reappraisal process may be a means of adjusting the self view (of not placing high importance on appearance) in the context of the prevailing socio-cultural pressure to attain the thin ideal.

Although cognitive reappraisal was related to shape concern and restraint, there was no relationship with weight concern and eating concern in regression models. The measure of cognitive reappraisal used in this study may need further refinement to fully capture this concept and strengthen observed relationships. Participants were asked how much they agree or disagree with statements relating to changing their expectations of their appearance. If asked how often they engage in such reappraisal strategies different relationships may have emerged.

To our knowledge, this is the first study that has directly linked body-related self-care attitudes and practices with body dissatisfaction and disordered eating. For this sample of midlife women, making time for themselves, taking care of their needs, and not feeling guilty for doing so, were associated with lower levels of body image and eating concerns. An attitude conducive to caring for the body, and engaging in such practices, may be incompatible with body dissatisfaction, which is characterised by body disparagement and resisting physical needs, e.g., hunger. On the other hand, applying appropriate self-care implies acceptance of the body in its current state and responding to its needs.

The relationship whereby low physical self-care was related to higher weight, shape and eating concerns, may be partially influenced by BMI, as low physical self-care was associated with high BMI. Women who have lower levels of physical self-care may be concerned about their body image and eating patterns because their BMI is higher. However, this reasoning cannot apply to restraint. In regression modelling, with all independent variables present, high levels of physical self-care were associated with high restraint. It is possible that in individuals high in restraint, the items that comprise the physical self-care measure, such as eating healthily and engaging in exercise, were interpreted as weight loss behaviours.

It is important to consider the findings for self-care within the context of midlife. The challenges posed by this phase of life include increased demands and responsibilities,^{32, 47} less

discretionary time,³³ and internalised societal norms that dictate that women look after the needs of others before attending to their own.^{48, 49} The combination of these factors can lead to guilt when a woman's resources are spread thinly across various responsibilities.⁴⁷ It is not surprising, given these constraints, that women's self-care is likely to be impacted upon. This contention is supported by Gabrielle et al.'s⁴⁹ examination of self-care strategies undertaken by midlife nurses which found that family and work demands had a negative effect on self-care. Further longitudinal research may examine whether midlife roles and responsibilities have consequences for self-care attitudes and practices that contribute to difficulties with body image and eating.

The findings from this study have possible implications for therapy. The factors that were identified as being associated with body dissatisfaction and disordered eating in women in midlife, and which occurred at differential levels in groups of probable eating disorder cases and non-cases, could be incorporated into interventions. Although a recent study identified self-care as a central issue to include in interventions for mothers with eating disorders,⁵⁰ currently, self-care is not given explicit attention in most eating disorder programs. e.g.,^{51, 52} Attitudes to self-care could be challenged, and activities directed at body-related self-care could be encouraged, thus reducing body dissatisfaction and disordered eating by helping women to value their bodies and respond to their physical needs.

The limitations of the study need to be considered. In particular, this study is cross-sectional in design and cannot contribute to understanding of causal risk factors. The design of the study also did not control for past or present eating disorders. The predication of restraint from the variables included in regression modelling accounted for 26% of variance. This was less than that which was accounted for in the prediction of weight, shape and eating concern. Clearly, other factors are associated with restraint and need to be explored in more depth for women in midlife. Furthermore, the findings in this study are specific to midlife. It would be valuable to

examine whether they generalise to samples of younger or older women. In addition, new measures that were developed for this research require further validation.

In conclusion, this study suggests that developmentally specific factors, such as self-care and eating environment, are related to body dissatisfaction and disordered eating in women in midlife. These findings have potential implications for body image and eating disorder interventions offered to women in this age group, indicating that these developmentally relevant factors could be included in intervention content. In addition to the changes to appearance that accompany aging, increasing roles and responsibilities that impact on self-care contribute to midlife being a particularly challenging time for some women in which they may struggle to feel satisfied with their bodies or to have a positive relationship with food and eating.

Appendix

Perception of Ageing Related Changes to Appearance Scale (Cognitive Reappraisal)

1. I try to adjust my expectations rather than think that my body should not change with age
2. When I worry about the effects of age-related changes to my appearance, it helps to find a different way of looking at things
3. It is realistic to accept changes in my body due to age
4. I try to change my expectations about my appearance, rather than think that I must always look youthful
5. I try to take the pressure off myself by thinking that it is okay for my body to change as I get older
6. I change the ideals I set for my appearance, instead of feeling bothered about the effects of getting older
7. It is unrealistic to expect that women should not show the effects of ageing on their appearance
8. I accept age related changes to my body rather than worry about them
9. Rather than worry about getting older, I change the standards I set for my appearance
10. I accept the effects of ageing rather than try to fight them
11. When I look at my body now, I remind myself that changes with age are a natural part of life

Body-Related Self-Care

1. Eat healthily^P
2. Engage in leisure activities that are physically rewarding^P
3. Take time to relax^A
4. Feel that your responsibilities interfere with your own needs^{^A}
5. Pamper yourself^A
6. Engage in physical activities which contribute to your well-being^P
7. Follow a balanced eating pattern^P
8. Make time for yourself^A
9. Engage in regular physical activity or exercise^P
10. Feel guilty about taking time for yourself^{^A}
11. Pay attention to your body's needs^P
12. Eat so that your body feels good^P
13. Feel that demands on your time restricts your ability to look after your needs^{^A}
14. Value your body^P
15. Engage in positive physical activities, e.g. yoga, pilates, meditation^P
16. Nurture your body^P
17. Eat to enhance your health^P
18. Feel that it is not right to take time for yourself^{^A}
19. Take care of your own needs^A
20. Take time for your own leisure activities^A

^P items from Physical subscale; ^A items from Attitude subscale, [^] reverse scored

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Table 1. Untransformed means, 95% confidence intervals and summary statistics for independent samples t-tests comparing probable eating disorders cases with probable non-cases

	Mean (95% CI)			Group Difference		
	All (<i>N</i> =200)	Cases (<i>n</i> =34)	Non-cases (<i>n</i> =166)	<i>t</i>	<i>p</i>	η^2
Dependent variables						
EDE-Q Weight Concern	2.00 (1.79; 2.22)	3.99 (3.62, 4.36)	1.59 (1.40, 1.79)	13.14	<.001	.47
EDE-Q Shape Concern	2.33 (2.09; 2.56)	4.43 (4.08, 4.79)	1.90 (1.68, 2.12)	12.20	<.001	.43
EDE-Q Eating Concern	.95 (.77; 1.13)	2.66 (2.08, 3.25)	.60 (.47, .72)	-8.30	<.001	.26
EDE-Q Restraint	1.49 (1.30; 1.70)	2.95 (2.45, 3.45)	1.20 (1.01, 1.38)	6.80	<.001	.19
Independent variables						
Age	49.19 (48.11, 50.26)	48.09 (45.65, 50.53)	49.41 (48.21, 50.61)	-.91	.364	.00
BMI	27.64 (26.84, 28.44)	30.28 (27.89, 32.68)	27.06 (26.25, 27.88)	2.58	.014	.03
Importance of Appearance	3.09 (2.98; 3.20)	3.64 (3.42, 3.86)	2.98 (2.86, 3.10)	4.71	<.001	.10
Importance of Body Function	3.87 (3.79; 3.96)	4.08 (3.86, 4.31)	3.83 (3.74, 3.92)	2.25	.025	.03
Cognitive Reappraisal	3.71 (3.64; 3.78)	3.49 (3.28, 3.70)	3.76 (3.68, 3.83)	-2.83	.005	.04
Self-care - Physical	37.42 (36.38; 38.45)	33.99 (31.20, 36.78)	38.07 (36.98, 39.16)	-3.02	.003	.04
Self-care - Attitude	28.69 (27.81; 29.57)	26.65 (24.61, 28.69)	29.05 (28.08, 30.02)	-2.08	.039	.02

Table 2. Correlations between dependent and independent variables

	1	2	3	4	5	6	7	8	9	10
Dependent variables										
1. EDE-Q Weight Concern	-									
2. EDE-Q Shape Concern	.87***	-								
3. EDE-Q Eating Concern	.75***	.77***	-							
4. EDE-Q Restraint	.61***	.54***	.49***	-						
Independent variables										
5. Age	-.10	-.03	-.06	.10	-					
6. BMI	.40***	.35***	.32***	.21**	-.08	-				
7. Importance of Appearance	.46***	.48***	.35***	.37***	.02	-.04	-			
8. Importance of Body Function	.10	.17*	.05	.08	.05	-.09	.50***	-		
9. Cognitive Reappraisal	-.23**	-.28***	-.19**	-.22**	.11	.09	-.31***	-.13	-	
10. Self-care - Physical	-.50***	-.54***	-.49***	-.12	.14	-.47***	-.17*	.14	.16*	-
11. Self-care - Attitude	-.35***	-.37***	-.31***	-.15*	.14	-.03	-.17*	.01	.21**	.49***

* $p < .05$; ** $p < .01$, *** $p < .001$

Table 3. Summary statistics for multiple regression analyses predicting Weight Concern, Shape Concern, Eating Concern and Restraint.

Independent Variables	Weight Concern			Shape Concern			Eating Concern			Restraint		
	β	sr^2	R^2	β	sr^2	R^2	β	sr^2	R^2	β	sr^2	R^2
BMI	.33***	.076		.24***	.042		.19**	.263		.35***	.077	
Importance of Appearance	.43***	.118		.37***	.089		.30***	.059		.42***	.112	
Importance of Body Function	-.07	.003		.02	<.001		-.06	.002		-.15*	.017	
Cognitive Reappraisal	-.08	.005		-.12*	.012		-.05	.002		-.16*	.012	
Self-care - Physical	-.17*	.142		-.29***	.043		-.29**	.041		.20*	.021	
Self-care - Attitude	-.17**	.019		-.14*	.013		-.11	.008		-.15*	.016	
Age	-.02	<.001		.05	.003		.01	<.001		.14*	.018	
			.49			.51			.35			.26

* $p < .05$; ** $p < .01$; *** $p < .001$