

# Understanding Body Image Dissatisfaction and Disordered Eating in Midlife Adults

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Research on body image and eating behaviours is well established in young adults. However, less is known about body image and eating behaviours in women and men in midlife (30-60 years), and it is an age when certain biological, psychological, and social changes occur that can challenge body image. This study aimed to explore the gender similarities and differences in body dissatisfaction and disordered eating in midlife with a convenience sample of 187 women and 48 men using an online survey. Midlife women had greater body dissatisfaction and disordered eating than midlife men, and obese women reported the greatest body image dissatisfaction and disordered eating. There was insufficient power to detect weight group differences for men, although a reasonable proportion of the men (8-17%) scored above the norms for body image dissatisfaction (compared to 28-41% of the women). Body image and eating concerns are important health issues for midlife adults that warrant further research, especially with regard to men.

Keywords: body image; midlife; disordered eating; adults

Researchers have documented a marked increase in body image dissatisfaction over recent times for Western women and men of all ages, which is a concerning public health issue given links between body image problems and psychological problems including low self-esteem, anxiety, and depression (Hay, Mond, Buttner, & Darby, 2008; Jackson et al., 2014; Keel, Baxter, Heatherton, & Joiner, 2007; Midlarsky & Nitzburg, 2008; Tiggemann, 2004). Body image dissatisfaction is defined as the negative perceptions and feelings a person has about their body and is influenced by factors such as body shape and appearance, attitudes towards weight gain, and cultural norms in relation to an ideal body (Peat, Peyerl, & Muehlenkamp, 2008; Phillips & de Man, 2010; Slade, 1994; Slevic & Tiggemann, 2011a).

Body image dissatisfaction is also strongly associated with, and is often considered a predicting and maintaining factor of, disordered eating (Fairburn, Cooper, & Shafran, 2003; Midlarsky & Nitzburg, 2008; Stice, Marti, & Durant, 2011; Tiggemann, 2004). Disordered eating has been defined as encompassing a wide range of eating behaviours, including dieting, which is normally considered low-risk, through

to severe food restriction, binge eating and purging, which can be considered clinical or sub-clinical depending on other related behaviours (American Psychiatric Association, 2013; Slevic & Tiggemann, 2011b; Williamson, 1999). In the present study, disordered eating refers to low-risk behaviours, such as dieting, which can lead to the insufficient intake of nutrients required by the body and/or marked weight loss or gain (Pereira & Alvarenga, 2007; Slevic & Tiggemann, 2011b). It also includes negative attitudes towards food, such as the use of 'good' and 'bad' labels for food, inflexible eating patterns and disproportionate daily thoughts about eating, food preparation, and food digestion (Pereira & Alvarenga, 2007).

The co-existence of body image dissatisfaction and disordered eating concerns has been well documented, particularly for young women aged between mid-adolescence and mid-to-late twenties living in Western cultures (Ferraro et al., 2008; Peat et al., 2008; Pereira & Alvarenga, 2007; Slevic & Tiggemann, 2011b; Tiggemann, 2004). In fact, such is the pervasiveness of body image dissatisfaction in young Western women that it has even been termed a "normative" phenomenon (Rodin, Silberstein, & Striegel-Moore, 1984). For this reason, the majority of

research on body image dissatisfaction and disordered eating has focused on young women (Brandsma, 2007; Ferraro et al., 2008; Peat et al., 2008; Pruis & Janowsky, 2010; Slevic & Tiggemann, 2011b; Tiggemann, 2004; Tiggemann & Lynch, 2001). Similarly, the vast majority of the more limited amount of research on men also only applies to young adult men (McCabe & Ricciardelli, 2004).

However, concerns with body shape and weight apply to a broader age range than the research focus might suggest (Tiggemann, 2004). For example, 71% of a sample of 1,053 women in Switzerland aged 30 to 74 years reported wanting to be thinner even though 73% were of a normal weight (Allaz, Bernstein, Rouget, Archinard, & Morabia, 1998). A better understanding of these issues in midlife (30-60 years of age) is needed in order to identify whether there are research and treatment needs that go beyond the current focus on young women and men with body image and eating problems.

## Midlife women

A review of the existing literature on body image dissatisfaction and disordered eating in midlife women reveals several key points. First, like young women, many midlife women report experiencing continual pressure to meet Western society's female beauty standards of youthfulness and thinness, and achievement of these attributes is associated with attractiveness and social advantage (Esnaola, Rodríguez, & Goñi, 2010; Tiggemann, 2004). Midlife women also face a series of marked biological changes such as ageing, pregnancy and menopause that can challenge their ability to meet these standards (Fuller-Tyszkiewicz, Skouteris, Watson, & Hill, 2013; Tiggemann, 2004). Midlife biological changes, for example, are normally associated with weight gain, body shape change, and an increase in body fat

(Tiggemann, 2004). Ageing in particular is not only associated with weight gain, but also with changes in skin elasticity, the development of wrinkles, and the loss of hair, all of which contradict Western expectations (D. C. Lewis, Medvedev, & Seponski, 2011).

Body weight may also play a role in body image dissatisfaction and disordered eating in midlife women as evidence shows that, compared to normal weight midlife women, overweight and obese midlife women tend to report a higher drive for thinness, greater body shame, increased dieting behaviours, and greater preoccupation with food (Forrester-Knauss & Zemp Stutz, 2012; Gagne et al., 2012; Marcus, Bromberger, Wei, Brown, & Kravitz, 2007; Sarwer, Thompson, & Cash, 2005; Tiggemann, 2004). It has been hypothesized that overweight and obese midlife women may be more aware that their body size and shape contravenes Western ideals (Sarwer et al., 2005). However, as most midlife women appear to be dissatisfied with their bodies, this hypothesis does not adequately explain the differences found, and some researchers have found that there is little relationship between the degree of obesity and intensity of body image dissatisfaction, suggesting the relationship is not clear-cut (Sarwer et al., 2005; Slevic & Tiggemann, 2011b).

For some women, body image becomes less important as they age (Tiggemann & Lynch, 2001). It has been argued this may be explained by a greater acceptance of the ageing process, and/or maturity, life experience, the development of cognitive strategies, and a decrease in exposure to the cultural ideals of beauty, all of which may reduce vulnerability to body image dissatisfaction and disordered eating (Esnaola et al., 2010; McLean, Paxton, & Wertheim, 2010; Peat et al., 2008; Runfola et al., 2013; Tiggemann, 2004). The achievement of certain life roles such as marriage, motherhood, and occupational identity may also act as protective factors as they may replace weight and shape in terms of the factors that influence how women evaluate themselves over time (Keel et al., 2007; Tiggemann, 2004).

### Midlife men

Few studies exist on body image dissatisfaction and disordered eating in midlife men, including any comparisons with midlife women (McCabe & Ricciardelli, 2004; Peat et al., 2008). Like midlife women, midlife men also go through a number of life stages and events such as marriage, parenting, career growth, and retirement, and it is not known to what extent that might affect body image satisfaction and/or contribute to the development of disordered eating in midlife men (McCabe & Ricciardelli, 2004; Robinson & Wright, 2013).

Body shape changes and increases in body fat can lead to greater concerns about appearance, body dissatisfaction, body shame, and disordered eating in midlife men (Baker & Gringart, 2009; Boisvert & Harrell, 2012; Keel et al., 2007). One American longitudinal study on men aged approximately 40 years ( $SD = 2$ ) at follow-up found that 71% of men wanted to lose weight compared to only 37% of the men 20 years earlier (Keel et al., 2007). In addition, these men were more dissatisfied with their weight and had increased their dieting behaviours (Keel et al., 2007). Attempts to gain muscle tone have been associated with greater body image dissatisfaction in midlife men, and men also appear to rely more on food supplements to increase the size of their muscles and compensate for body image dissatisfaction than women of the same age (Anderson & Bulik, 2004; McCabe & Ricciardelli, 2004; Tiggemann, 2004).

The ageing process may be just as challenging for men as it is for women as, like women, ageing takes men further away from Western male standards of beauty (Keel et al., 2007). The standards for men are best described by the ideal male body which is lean and muscular and linked to attributes such as strength, power, and control (Esnaola et al., 2010; Lodge & Umberson, 2013; McCabe & Ricciardelli, 2004; McFarland & Petrie, 2012; Parent, 2013). However, others have found no relationship between ageing and body image dissatisfaction for men in midlife, concluding that this could be because not all men experience ageing as a negative event and some may become more accepting of their

bodies as they age (Forrester-Knauss & Zemp Stutz, 2012).

Evidence on the relationship between body weight, body dissatisfaction, and disordered eating for midlife men is mixed and often contradictory. In some cases, overweight and obese midlife men were more dissatisfied with their physical appearance and more likely to report disordered eating behaviours than midlife men of a normal weight (Forrester-Knauss & Zemp Stutz, 2012; McCabe & McGreevy, 2011; Muth & Cash, 1997). However, in other studies, underweight and normal weight midlife men were just as concerned about their appearance as overweight and obese men, although underweight and normal weight midlife men wished to be larger and more muscular, while overweight and obese men wished to have less body fat (Forrester-Knauss & Zemp Stutz, 2012; McCabe & McGreevy, 2011; McPherson & Turnbull, 2005; Muth & Cash, 1997; Phillips & de Man, 2010).

Body image and disordered eating seem to be more difficult to conceptualize in men than in women (Darcy & Lin, 2012; Jones & Morgan, 2010; Tiggemann, 2004). Men often take their physical abilities into account as well as their self-assessment against the Western male beauty standards when perceiving their body image (Esnaola et al., 2010; Tiggemann, 2004). This means body image in men typically not only encompasses what they look like, but also how their body performs in relation to athletic, physical, and/or sexual activities (Clarke, 2001; Clarke & Griffin, 2008; Lodge & Umberson, 2013; McCabe & Ricciardelli, 2004). Researchers and clinicians are yet to capture these complexities because the vast majority of measures of body image dissatisfaction that are used with men were designed for research with women, and are built almost entirely on the psychological, physical, and emotional symptomology of women with eating disorders (Jones & Morgan, 2010; McCabe & Ricciardelli, 2004). While this can make research on midlife men more difficult, researchers have found that some of the eating disorder measures available, such as the Eating Attitudes Test (EAT-26), can be used to measure body image dissatisfaction and disordered eating in

men as they contain more gender-neutral terminology than other measures, which allows for comparison with women (Boerner, Spillane, Anderson, & Smith, 2004; Darcy & Lin, 2012; Stanford & Lemberg, 2012).

In summary, the limited research to date offers a mixed picture of body image and eating concerns in midlife adults, particularly for men. There is evidence that these issues exist for both genders during the middle years of life, however, further exploration of these concerns will provide a better understanding of how midlife adults perceive their bodies and the extent to which these issues pertain to each gender. The present study sought to understand if there were gender similarities and differences in body dissatisfaction and disordered eating for a convenience sample of midlife adults. It was predicted that women would report more dissatisfaction with their bodies and more disordered eating than men. It was also predicted that women who were overweight or obese according to Body Mass Index (BMI) would be more dissatisfied with their bodies and have more disordered eating than normal-weight women. Given the limited evidence for men, the research sought to understand if midlife men who were underweight, overweight, or obese differed to men of a normal weight on body dissatisfaction and disordered eating.

## Method

### Participants

The participants in this study were a sample of convenience, predominantly recruited through personal and professional networks. Advertisements were placed with a number of community organisations in New Zealand and Australia, such as Rotary and Men's Health Australia, and on social media channels. It was advertised in the Christchurch Mail newspaper twice and through word of mouth. A press release was also issued by Massey University and was published in several local community newspapers and online blogs. Participation was voluntary and no payment was offered. To be included in the study, participants needed to be between 30 and 60 years of age and be

residents of New Zealand or Australia.

There were 287 people who responded to the online survey. However, 52 participants were excluded for being outside the age range, living outside New Zealand or Australia, giving invalid height responses, omitting gender, not responding to any of the items on the body image dissatisfaction and disordered eating measures, and/or missing more than 15% of the body image dissatisfaction measure subscale's items as recommended by Cash (personal communication, October 23, 2013). The final sample comprised 187 (80%) women and 48 men who were aged between 30 to 60 years and were residents of New Zealand (79%) or Australia (21%). The mean age for men was 44.60 years ( $SD = 10.21$ ) and for women was 42.62 years ( $SD = 9.08$ ). Nearly 80% of the sample identified as New Zealand or Australian European and a small number identified as Māori (4%), Pacific Islander (2%), Asian (1%) or other (15%). Most men (91%) and women (88%) in the sample had completed some level of tertiary education and most were married, in a civil union or defacto relationship (83% of men, 71% of women). Men's average BMI scores were 25.84 ( $SD = 3.47$ ) and women's scores were 26.74 ( $SD = 6.21$ ). More than half of the men (56%) and women (53%) in the study had an overweight or obese BMI. Given the convenience nature of the sample, the findings need to be treated with caution, as the sample is not representative of the population (e.g., those 30-60 years old were 52% female and 48% male in the 2011 New Zealand census; Statistics New Zealand, 2016).

### Measures

Participants completed an anonymous online survey that comprised the following measures.

**Body image dissatisfaction.** Body image dissatisfaction was measured using the 34-item self-report Multidimensional Body-Self Relations Questionnaire – Appearance Scales (MBSRQ-AS). The MBSRQ-AS has five subscales, the Appearance Evaluation (AE), Appearance Orientation (AO), Overweight Preoccupation (OWP), Self-Classified Weight (SCW) and Body Areas Satisfaction Scale (BASS)

(Brown, Cash, & Mikulka, 1990; Cash, 2000), which are scored on a five-point Likert scale. A high AE score indicates satisfaction with appearance. A high AO score indicates placing a high importance on appearance and grooming. A high OWP score indicates weight anxiety and food restriction. A high BASS score indicates overall satisfaction with body parts and the Self-Classified Weight (SCW) subscale assesses weight perception. The MBSRQ-AS was selected because these scales have been found to be suitable for use with both genders (Rusticus & Hubley, 2006).

The psychometric properties of the MBSRQ-AS have been well documented (Brown et al., 1990; Cash, 2000). It has been found to have internal consistency (Cronbach's alpha) and good stability as demonstrated by one month test-retest coefficients (Cash, 2000). Internal consistency in the present study was similar to that reported by Cash (2000), and most coefficients were above the .70 rule of thumb (Pallant, 2013). The exception was OWP for men in the current study, which was just below .70. The coefficients in the present study for the total sample were AE = .88, AO = .90, OWP = .65, SCW = .74 and BASS = .81.

**Disordered eating.** Disordered eating was measured using the 26-item self-report Eating Attitudes Test (EAT-26; Garner, Olmsted, Bohr, & Garfinkel, 1982). The scale measures abnormal eating on a 6-point Likert scale. A total score at or above 20 indicates potentially problematic eating disturbances. The psychometric properties of this measure have also been well documented (Garner et al., 1982). In this study, Cronbach's alpha was .78 for men, .91 for women, and .90 for the whole sample, which is comparable to Garner et al. (1982).

**Body mass.** Body mass classification was determined using the Body Mass Index (BMI), which was calculated by dividing participants' self-reported weight in kilograms by the square of their height in metres ( $\text{kg}/\text{m}^2$ ) (World Health Organisation, 2012). BMI is classified as underweight ( $<18.50$ ), normal weight (18.50 – 24.99), overweight (25.00 – 29.99) or obese ( $30.00 <$ ) (World Health Organisation, 2012).

**Procedure**

Participants were invited to complete an online survey hosted on the Massey University School of Psychology website that asked about demographic information and included the measures described. The ethics of the research were evaluated by peer review and judged to be low risk, so the study was not reviewed by the university Human Ethics Committee and the researchers were responsible for the ethical conduct of the research.

**Data analysis**

Several analyses were planned to answer the research questions using SPSS (version 20). A multivariate analysis of variance (MANOVA) examined if midlife men and women differed in their body image dissatisfaction and a one-way ANOVA compared the disordered eating scores between men and women. The hypotheses comparing overweight, obese, and normal weight women and men on body dissatisfaction and disordered eating followed the same analytical pattern.

Data were screened for accuracy and checked for the univariate and multivariate assumptions. There were 19 participants with missing data on the MBSRQ-AS subscales and this was managed using the recommended approach of Cash (personal communication, October 23, 2013) in that, for participants missing less than 15% of the data, individual mean scores were calculated for each subscale and were used to replace the missing items. Missing data for 11 participants on the EAT-26 scale was managed using the recommended approach of Garner et al. (1982) in that, for participants missing no more than one item, the median of responses was used to calculate the missing value. While the MBSRQ-AS subscales were normally distributed, the BMI and EAT-26 scores were positively skewed for both men and women. As the EAT-26 scores were quite skewed, a log transformation was conducted to bring the data closer to a normal distribution (Tabachnick & Fidell, 2013). The gender group sizes were also sharply unequal, so a more stringent alpha level of  $\alpha = .01$  was used to reduce the likelihood of Type 1 error (Stevens, 2009). Finally, one participant had a Mahalanobis

distance of 38.89, which was well above the critical level of 20.51 ( $p < .001$ ) (Tabachnick & Fidell, 2013), so data from this participant was removed.

**Results**

Using the norms on the MBSRQ for the subscales most commonly used to indicate body dissatisfaction (Brown et al., 1990; Cash, 2000), 31.5% of women and 15% of men scored more than one standard deviation above the norm for AE, and the figures for the BASS were 28% and 17%, respectively, indicating some degree of body image concern in the present sample, although greater for women than men. Various cutoff scores have been used (Fiske, Fallon, Blissmer, & Redding, 2014).

dissatisfaction variables between midlife men and women,  $F(5, 224) = 7.52, p < .001$ , Pillai's Trace = .14, partial  $\eta^2 = .14$ . Univariate tests revealed a significant gender difference for all dependent variables, as can be seen in Table 1. These results indicate that, as predicted, midlife women had a greater level of dissatisfaction with their appearance (AE), placed higher importance on how they looked, engaged in greater excessive grooming (AO), dieted more, showed greater eating restraint and greater worry about becoming fat (OWP), and reported a greater perception of being overweight and perceiving that others thought they were overweight (SCW), than men. Midlife men, on the other hand, had a greater level of satisfaction with their

Table 1

Mean (and SD) Scores and Comparative Results for Men and Women on the MBSRQ-AS Subscales and EAT-26

	Mean (SD)		F	df	p	Effect size
	Men (n = 48)	Women (n = 187)				
AE	3.47 (.71)	3.00 (.97)	9.82	1, 228	< .01	.04
AO	2.92 (.72)	3.46 (.67)	23.45	1, 228	< .001	.09
OWP	2.25 (.73)	2.88 (1.00)	16.58	1, 228	< 0.001	.07
SCW	3.25 (.72)	3.65 (.70)	13.04	1, 228	< .001	.05
BASS	3.49 (.60)	3.00 (.79)	15.94	1, 228	< .001	.06
EAT-26	1.32 (.93)	1.74 (1.14)	6.97	1, 87.90	.01	.02

Note. AE = Appearance Evaluation, AO = Appearance Orientation, SCW = Self-Classified Weight, BASS = Body Areas Satisfaction Scale. The possible range of scores was 1 - 5 for all subscales. High AO, OWP and SCW and low AE and BASS indicate body image dissatisfaction. The EAT-26 score has been transformed using a log transformation. A high EAT-26 score indicates greater disordered eating. Effect size for AE, AO, OWP and BASS is partial  $\eta^2$ . EAT effect size is eta squared.

Using the most conservative score, 41% of women and 17% of men scored above a cutoff of 2.74 on AE (Peplau et al., 2009), and the respective proportions for BASS were 37% and 8%, respectively. A small number of participants (16% of women and 6% of men) were found to have an EAT-26 score that was at or above 20, indicating potentially problematic eating disturbances as noted by the manual (Garner et al., 1982).

There was a statistically significant difference in the combined body image

size and/or appearance compared to midlife women.

The one-way ANOVA comparing EAT-26 scores for midlife men and women is also shown in Table 1. Levene's test for homogeneity of variance was significant ( $p = .02$ ) so the Welch test was used (Pallant, 2013). As predicted, midlife women reported higher levels of disordered eating than midlife men (i.e., more frequent limiting of food intake, restricting types of food such as high carbohydrate foods, eating

diet foods, and/or counting calories).

A three-group MANOVA compared body image dissatisfaction among groups of midlife women with a normal ( $n = 87$ , BMI  $M = 22.16$ ,  $SD = 1.82$ ), overweight ( $n = 54$ , BMI  $M = 26.93$ ,  $SD = 1.36$ ) and obese ( $n = 40$ , BMI  $M = 36.19$ ,  $SD = 5.07$ ) BMI. There was only one woman with an underweight BMI, so no comparison was made with that category. There was a statistically significant difference in the combined body image dissatisfaction variables for normal weight, overweight, and obese women,  $F(10, 350) = 15.42$ ,  $p < .001$ , Pillai's Trace = .61, partial  $\eta^2 = .31$ . Univariate tests showed no significant difference in AO or OWP, but a significant difference in AE, BASS, and SCW using a more stringent alpha level of  $\alpha = .01$  (see Table 2). Using Tukey HSD post-hoc comparisons ( $\alpha = .05$ ), there was a significant difference between all three BMI categories on the AE, BASS, and SCW scales. As predicted, obese women reported greater unhappiness with their appearance (AE), greater unhappiness with their size or appearance of body areas (BASS), and a greater perception of being overweight and perceiving that others thought they were overweight compared to overweight and normal weight women (SCW). Overweight women also reported greater concerns in these areas than normal weight women. There was also a significant difference between obese women and normal weight women on OWP, with obese women reporting greater dieting frequency, greater eating restraint and greater worry about becoming fat than normal weight women.

A one-way ANOVA compared midlife women with a normal ( $n = 87$ ), overweight ( $n = 55$ ) and obese ( $n = 42$ ) BMI on the log transformed EAT-26 scores. There was a significant difference in disordered eating for the three groups, as shown in Table 2. Using Tukey HSD post-hoc comparisons ( $\alpha = .05$ ), the mean score for obese women was significantly higher than for normal weight and overweight women, although there was no difference between overweight and normal weight women.

The groups of men by weight category were too small for MANOVA so five one-way ANOVAs were performed to compare body dissatisfaction in men

Table 2

Mean (and SD) Scores and Comparative Results for Women by BMI on the MBSRQ-AS Subscales and EAT-26

	Mean (SD)			F	df	p	Effect size
	Normal	Overweight	Obese				
AE	3.44 (.83)	2.98 (.81)	2.11 (.76)	36.92	2,178	<.001	.29
AO	3.44 (.72)	3.47 (.67)	3.43 (.56)	.05	2,178	.95	.29
OWP	2.67 (1.03)	2.99 (.93)	3.13 (.91)	3.68	2,178	.03	.04
SCW	3.17 (.47)	3.76 (.45)	4.54 (.46)	121.63	2,178	<.001	.58
BASS	3.39 (.71)	2.93 (.58)	2.27 (.60)	41.19	2,178	<.001	.32
EAT-26	1.59 (1.18)	1.52 (1.07)	2.27 (.98)	6.78	2,183	<.01	.07

Note. AE = Appearance Evaluation, AO = Appearance Orientation, SCW = Self-Classified Weight, BASS = Body Areas Satisfaction Scale. Normal weight  $n = 87$ , overweight  $n = 54$  and obese  $n = 40$ . The possible range of scores was 1 - 5 for all subscales. High AO, OWP and SCW and low AE and BASS indicate body image dissatisfaction. The EAT-26 score has been transformed using a log transformation. A high EAT-26 score indicates greater disordered eating. Effect size for AE, AO, OWP and BASS is partial  $\eta^2$ . EAT effect size is eta squared.

with a normal ( $n = 21$ , BMI  $M = 22.83$ ,  $SD = 1.28$ ) and overweight/obese ( $n = 27$ , BMI  $M = 28.19$ ,  $SD = 2.72$ ) BMI. (There were no men in the study with an underweight BMI.) As shown in Table 3, there were no significant differences between the groups on AE, AO, and OWP. However, there was a significant difference between the groups on SCW, in that overweight/obese men reported a greater perception of being overweight than normal weight men. No significant

difference was found between the two groups of men for disordered eating.

## Discussion

As predicted, this convenience sample of midlife women reported greater body dissatisfaction and disordered eating than the midlife men, consistent with the majority of comparable studies on midlife women and men, and more broadly the studies on Western women and men of all ages (Anderson & Bulik,

Table 3

Mean (and SD) Scores and Comparative Results for Men by BMI on the MBSRQ-AS Subscales and EAT-26

	Mean (SD)		F	df	p	Effect size
	Normal	Overweight/ Obese				
AE	3.53 (.62)	3.43 (.77)	.22	1, 47	.64	<.01
AO	2.71 (.67)	3.07 (.72)	3.20	1, 47	.08	.07
OWP	2.08 (.73)	2.38 (.72)	1.91	1, 46	.17	.04
BASS	3.61 (.56)	3.37 (.61)	1.95	1, 47	.17	.04
SCW	2.86 (.42)	3.56 (.45)	30.33	1, 47	<.001	.40
EAT-26	1.32 (1.00)	1.32 (.89)	.00	1,47	.99	.00

Note. AE = Appearance Evaluation, AO = Appearance Orientation, SCW = Self-Classified Weight, BASS = Body Areas Satisfaction Scale. Normal  $n = 21$ , overweight  $n = 18$  and obese  $n = 8$ . The possible range of scores was 1 - 5 for all subscales. High AO, OWP and SCW and low AE and BASS indicate body image dissatisfaction. The EAT-26 score has been transformed using a log transformation. A high EAT-26 score indicates greater disordered eating. Effect size for AE, AO, OWP and BASS is partial  $\eta^2$ . EAT effect size is eta squared.

2004; Esnaola et al., 2010; Ferraro et al., 2008; Forrester-Knauss & Zemp Stutz, 2012; Gagne et al., 2012; Gupta & Schork, 1993; Muth & Cash, 1997; Tiggemann, 2004; Tiggemann & Lynch, 2001). Western society's continual pressure for women of all ages to be thin is almost completely at odds with the biological changes that most women experience during midlife (Tiggemann, 2004). Obese women endorsed the greatest body image dissatisfaction and disordered eating compared to normal weight and overweight midlife women. These results with a convenience sample are also consistent with the majority of comparable studies that have found that overweight and obese midlife women report greater body image dissatisfaction than normal weight women (Forrester-Knauss & Zemp Stutz, 2012; Gagne et al., 2012; D. M. Lewis & Cachelin, 2001; Marcus et al., 2007; Slevac & Tiggemann, 2011b). Midlife overweight and obese women are often subjected to greater societal prejudices than normal weight midlife women because they are perceived to be further from Western society's thin ideal female body (Heuer, McClure, & Puhl, 2011; Sarwer et al., 2005). While losing weight through food restriction, dieting, and counting calories may be sustainable in the short-term, chronic dieting is not and can result in increased weight gain that reinforces negative perceptions and feelings about body shape (Sarwer et al., 2005; Stewart, Williamson, & White, 2002).

In contrast, the results for this small, convenience sample of midlife men showed that, not only were they less concerned about their bodies than midlife women, but they also reported greater satisfaction with their body parts, such as lower torso, muscle tone, and weight, and with their overall appearance than their female counterparts. There was also no difference between men's BMI groups on most body image dissatisfaction variables or disordered eating. While these results suggest that this group of midlife men are satisfied with their bodies regardless of weight, all of the non-significant results had small to medium effect sizes, so it is likely that the sample of men was too small to detect these small to medium group differences (Pallant, 2013).

The finding that this group of midlife

men were more satisfied with their body image than midlife women is consistent with a few other studies, which have attributed men's body image satisfaction to the fact that midlife men may not experience the same societal pressures that midlife women do with regards to appearance, and there is some evidence that men may be more accepting of their bodies as they age compared to women (Esnaola et al., 2010; Feingold & Mazella, 1998; Forrester-Knauss & Zemp Stutz, 2012; Jones & Morgan, 2010). Midlife men may also feel preoccupied by other pressures in midlife. For example, in heterosexual relationships, midlife men often take primary responsibility for the family income while midlife women take maternity leave and/or become the lead child caregiver at home (Charles & James, 2005). The responsibility for income may cause considerable stress for some midlife men and may render body image less important during this period of their lives (Charles & James, 2005; Esnaola et al., 2010; McCabe & Ricciardelli, 2004), and psychological wellbeing is also more closely tied to work for men compared to women (Crowley, 1998; Lodge & Umberson, 2013).

However, the present sample is not representative and the small sample of men means that these results need to be treated with caution. This is particularly the case given that the findings for men contrast with emerging literature which suggests that midlife men may be vulnerable to body image concerns to some degree, although the trends have been far from clear (Boisvert & Harrell, 2012; Forrester-Knauss & Zemp Stutz, 2012; Keel et al., 2007). Nevertheless, the sample was characterised by a reasonable degree of body dissatisfaction and disordered eating, with 28-41% of the women and 8-17% of the men scoring above normative data on these measures.

As well as limitations due to the sample, it is important to acknowledge the issues with measurement in the study. Body image for men is an area of developing knowledge, and current measures such as the one used here may not capture the complexity of body image satisfaction for men, in terms of factors such as body function and physical ability. In addition, men might interpret some of the language

used in a different way to that intended by the measure. For example, the term 'weight' is used in reference to body fat in the MBSRQ, however, some men may interpret weight in relation to muscle mass (Ousley, Cordero, & White, 2008; Parent, 2013; Stanford & Lemberg, 2012). Furthermore, BMI is a fairly crude measure that does not distinguish between muscularity and fat distribution or take into account cultural differences (Rush et al., 2004). Although there is a higher prevalence of obesity in New Zealand's indigenous and Pacific populations (Sundborn et al., 2010), studies comparing BMI across cultural groups suggest these discrepancies are unlikely to be an issue when studying a New Zealand community sample as the variation in body composition, being muscle and fat, across the population is relatively small (Ministry of Health, 2008). These differences have little bearing on the present results given that a very small number of participants were Māori or Pacific Island peoples.

More research on this population group is needed to understand the complexities of midlife adults' perceptions and feelings about their bodies. If there is an increase in body image dissatisfaction over time, across age groups and genders in Western countries, this is likely to become an increasingly concerning public health issue in the future, not only because of the impacts on physical health, but also the relationship with psychological health (Hay et al., 2008; Jackson et al., 2014; Keel et al., 2007; Midlarsky & Nitzburg, 2008; Tiggemann, 2004). Particular attention is needed to further understand these issues as they are relevant for men in midlife. While the men in the present sample were fairly satisfied with their bodies, some have suggested that men see being overweight as a normal part of the ageing process and are unperturbed by this, even though it may pose a risk to their health (McPherson & Turnbull, 2005). Public health professionals may need to consider how to best address contentment with obesity in midlife men without invoking either body image dissatisfaction or disordered eating. Future research should also consider the potential impact of the biological milestones on body image dissatisfaction and disordered eating in midlife women

in particular.

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