Never Too Old for Eating Disorders or Body Dissatisfaction: A Community Study of Elderly Women

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ABSTRACT

Objective: The aim of the study is to examine eating behavior and body attitude in elderly women.

Method: A randomly selected nonclinical sample of 1,000 women, aged 60–70 years, was contacted for our questionnaire survey covering current eating behavior, weight history, weight control, body attitude, and disordered eating (DSM-IV).

Results: The 475 (48%) women included in our analyses had a mean BMI of 25.1 but desired a mean BMI of 23.3. More than 80% controlled their weight and over 60% stated body dissatisfaction. Eighteen women (3.8%; 95% confidence interval: 2.3–5.9%) met criteria for eating disorders (ED; $N = 1$ anorexia nervosa, $N = 2$ bulimia nervosa, and $N = 15$ EDNOS) and 21 (4.4%) reported single symptoms of an ED.

Conclusion: Although EDs and body dissatisfaction are typical for young women, they do occur in female elderly and therefore should be included in the differential diagnosis of elderly presenting with weight loss, weight phobia, and/or vomiting.

Keywords: eating disorders; body dissatisfaction; elderly women

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Introduction

Although clinical eating disorders (ED) and body image distortions are typical for young female populations aged 18–25 years, there is evidence that EDs[1–12] and body image distortions[13–15] do occur in women of midlife and beyond. Carrier and Dally[1,2] were the first to describe "tardive anorexia," a term for anorexia nervosa (AN) with a first onset after adolescence. Russell and Gilbert[3] supported the existence of "true tardive anorexia" as a distinct entity. Mitchell et al.[4] described late onset bulimia patients (>25 years) and found significantly more comorbidity compared to early onset patients. Hsu and Zimmer[6] showed that the clinical picture of anorexia and bulimia nervosa (BN) in elderly closely resembles that in younger patients. The fact that literature on EDs occurring after menopause is very sparse[8,12] might be due to the occurrence of aged induced weight loss and other medical illnesses that hamper the recognition of anorexia or BN. All the existing literature shares that scientific evidence is based on case reports and on small clinical samples.

The few studies on body image in elderly showed that body dissatisfaction remains stable across the life span and does not diminish with age.[13–15] To our knowledge, there are no epidemiological studies on eating behavior and body image in elderly community women. Thus, we aimed to examine the current (1) eating behavior, (2) body attitude and body satisfaction, and (3) the prevalence of current disordered eating in women aged 60–70 years.

Method

A random sample of 1,000 women was selected by the local census bureau from the general population of Innsbruck. We chose the age cohort between 60 and 70 years because this is the first decade of retirement in Austria. A letter explaining the study was sent to ask for permission to mail our self-report questionnaire. The enclosed "nonparticipation card" was returned by 285 participants. Thus, we mailed the questionnaire to the remaining 715 participants. From those we included 475 in our analysis (48% of $N = 1{,}000$; 66% of $N = 715$). All attending participants signed the informed consent form that was approved by the ethics-commission of the Innsbruck University. Although we do not have specific information

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TABLE 1. Body image and body attitude

	N (%)			
	Total Sample ($N = 475$)	BMI < 25[a] ($N = 260$)	BMI ≥ 25[a] ($N = 211$)	p-value (comparison BMI < 25 vs. BMI ≥ 25)
"How fat do you feel?"[b]				<.001
Very	61 (12.9)	5 (1.9)	53 (25.1)	
Moderate	225 (47.5)	90 (34.7)	135 (64.0)	
Not at all	188 (39.7)	164 (63.3)	23 (10.9)	
Satisfaction with shape[b]				<.001
High	170 (35.9)	142 (54.6)	27 (12.9)	
Moderate	189 (39.8)	100 (38.5)	89 (42.6)	
Low	114 (24.1)	18 (6.9)	93 (44.5)	
Satisfaction with weight[b]				<.001
High	178 (37.5)	153 (58.8)	24 (11.4)	
Moderate	168 (35.4)	89 (34.2)	79 (37.4)	
Low	129 (27.2)	18 (6.9)	108 (51.2)	
Self-esteem depends on weight and shape[c]				.032
Agree	213 (45.2)	128 (49.4)	82 (39.4)	
Disagree	258 (54.8)	131 (50.6)	126 (60.6)	
"I really like my body"[c]				<.001
Agree	354 (74.8)	220 (84.6)	132 (63.2)	
Disagree	119 (25.2)	40 (15.4)	77 (36.8)	
Importance of appearance[b]				n.s.
High	303 (63.8)	169 (65.2)	130 (61.6)	
Moderate	169 (35.6)	89 (34)	80 (37.9)	
Low	3 (0.6)	2 (0.8)	1 (0.5)	

[a] The number of the two categories is less than $N = 475$ because of 4 missings.
[b] Mann–Whitney U test.
[c] Fisher's exact-test.

about the nonparticipants, we have data from the "Innsbruck Females Health Study,"[16] showing a similar participation rate of 56% in the age >60 years. To increase participation, we kept the questionnaire as short as possible confining the questions to the present time.

The assessment of present eating behavior, weight history, weight control, and body attitude was based on modified questions of the Diagnostic Survey For Eating Disorders (DSED).[17] ED were examined using slightly modified questions from the Structured Clinical Interview for DSM-IV[18] for AN, BN, and eating disorders not otherwise specified (EDNOS). Women who did not fulfill criteria for ED but reported single symptoms of eating disorders (SSED) like bingeing or various forms of purging were also grouped together. The eating disorder inventory (EDI)[19] was used in addition to assess weight preoccupation and clinical relevant characteristics in the sample divided into different classifications of eating behavior (ED, SSED, and healthy eating (HE)). We also added the Geriatric Depression Scale (GDS),[20,21] a basic screening measure for depression in older adults with a score >5 indicating depression, to compare the different groups. All women were also openly asked for current physical illnesses by giving examples such as hypotension, diabetes, cancer, etc.

Statistics

For the most part, the data were evaluated descriptively. In addition, 95% confidence intervals (CI) based on the binomial distribution were calculated for categorical variables of special importance. Fisher's exact test and the Mann–Whitney U test were used to compare body image as well as body attitude in women with BMI <25 and women with BMI $\geq$ 25. To compare women with ED, SSED, and HE regarding EDI, GDS, BMI, and self-evaluation of eating behavior the Kruskal–Wallis test and the χ^2 test were used. Post hoc pairwise group comparisons were performed using the Mann–Whitney U test and Fisher's exact-test, respectively.

Results

We included 475 women in our analyses: They had an average age of 63.8 (SD $\pm$ 2.7) years and were mostly married ($N = 281$, 59%). The vast majority ($N = 400$; 84%) had an average of 2.3 ($\pm$1.1) children. More than half of the women had an educational status lower than high school ($N = 254$; 54%). Only 38 (8%) women graduated from college or university. The majority of women described a Healthy Eating pattern. More than two-thirds of the women (73%) reported that they eat at least three times a day. Asked for various troubles with eating 219 (47%) women specified "craving for sweets" as the biggest problem, followed by "eating in society," "boredom," "hunger attacks," and "stress." More

TABLE 2. Comparison of females with eating disorders, single symptoms, and healthy eating on the EDI, GDS, BMI, and self-evaluation

Scales	Eating Disorders AN/BN/EDNOS (Group 1) [$N = 18$ (4%)]	Single[a] Symptoms (Group 2) [$N = 21$ (4%)]	Healthy Eating (Group 3) [$N = 436$ (92%)]	p-value			
				Overall-Group Comparison[b]	Group 1 vs. Group 3[c]	Group 2 vs. Group 3[d]	Group 1 vs. Group 2[e]
EDI-total, mean (SD)	43.1 (29.4)	40.3 (16.5)	22.3 (13.4)	<.001	.004	.001	n.s.
GDS-total, mean (SD)	4.9 (4.7)	4.6 (3.5)	2.2 (2.4)	<.001	.016	.001	n.s.
BMI current, mean (SD)	26.2 (5.9)	29.9 (4.0)	24.8 (4.0)	<.001	n.s.	.001	.002
Self-evaluation of eating behavior, *N* (%)				<.001	.002	.059	n.s.
Normal	11 (61)	16 (76)	390 (90)				
Abnormal	7 (39)	5 (24)	43 (10)				

Notes: EDI, eating disorder inventory; GDS, geriatric depression scale; BMI, body mass index; AN, anorexia nervosa; BN, bulimia nervosa; EDNOS, eating disorder not otherwise specified (DSM-IV).

[a] Single symptoms of eating disorders.

[b] For EDI, GDS, and BMI: Kruskal–Wallis-test, $\chi^2 = 24.3, 17.1, 27.5$, respectively; for self-evaluation: χ^2-test, df = 2, $\chi^2 = 17.2$.

[c] Mann–Whitney U test; $Z = 2.87$ for EDI, $Z = 2.42$ for GDS, and $Z = 1.05$ for BMI; Fisher's exact-test for self-evaluation (no test statistic).

[d] Mann–Whitney U test; $Z = 4.11$ for EDI, $Z = 3.46$ for GDS, and $Z = 5.17$ for BMI; Fisher's exact-test for self-evaluation (no test statistic).

[e] Mann–Whitney U test; $Z = 0.52$ for EDI, $Z = 0.11$ for GDS, and $Z = 3.04$ for BMI; Fisher's exact-test for self-evaluation (no test statistic).

than half of the sample (56%) stated that they restrict their eating to prevent weight gain and 417 (88%) evaluated their eating behavior as "normal and healthy." The majority of our sample (86%) accounted weight control by various means: weight check (71%), regular physical activity (69%), fasting (10%), laxatives or diuretics (6%), and vomiting and spitting out food (1%). With regard to weight history, our women reported a mean current BMI of 25.1 (±4.2), and desired a mean BMI of 23.3 (±2.6). Their mean lowest adult BMI of 20.7 (±2.5) was at age 34.7 (±12.8) and their mean highest BMI ever (exclusive pregnancy) of 26.6 (±4.4) was at age 52.7 (±13.5). Using weight categories 12 (3%) women were underweight (BMI $\leq$ 18.5), 248 (52%) were normal weight (BMI: 18.5–24.9), and 208 (45%) had a BMI $>$ 25.

Table 1 demonstrates body image and body attitude. Almost 90% of the total sample felt "very" or "moderately" fat and over 60% stated "moderate" or "low" satisfaction with weight and shape. Dividing the sample into BMI $</\geq$25, we found results as expected: overweight and obese women felt significantly fatter and showed significantly less satisfaction with their body shape and weight than their normal and underweight counterparts. However, the proportions of "moderate" and "low" body satisfaction and "moderate" and "much" feeling fat exceeded also more than one-third in the BMI $<$25 group.

As to disordered eating (**Table 2**), we revealed 18 women with ED in our cohort (3.8%, 95% CI: 2.3–5.9%): 1 with AN, 2 with BN, and 15 with EDNOS. In the case of the women with AN, the weight history points to a late onset (after her fifties). Both women with BN reported vomiting and use of laxatives. Participants with EDNOS included five women with Binge Eating Disorder. We also detected 21 women (4.4%, 95% CI: 2.7–6.5%) who reported SSED, mostly binge eating (33%), use of laxatives or diuretics (62%), and vomiting (5%). The comparison between women with ED, SSED, and HE on the EDI and the GDS showed significantly higher scores in both groups with disordered eating compared to women with HE. Regarding body weight it is striking that women with SSED had a significantly higher BMI than both other groups. The participants' self evaluation of their eating behavior clearly confirmed our diagnoses of ED, since significantly more women with ED and SSED called their eating behavior "abnormal" compared to women with HE.

There was no significant difference in the three groups on physical disorders except diabetes that was three times more often reported by both groups with disordered eating compared to those with HE ($p = 0.051$).

Conclusion

We assessed eating behavior and body attitude in a randomly selected community sample ($N = 1000$) of 60–70 years old women in Innsbruck. The 475 women enclosed in our analyses described an overall Healthy Eating behavior and weight history that goes along with the Innsbruck Females Health Study[16] that found 59% of their women above 60 years normal or underweight and 2/3 physically active. The weight history of our sample is consistent with other study results describing a constant

weight gain during decades of life[13] and a subsequent biological determined weight decrease later on.[22] The mean current BMI of 25.1 of our sample lies between the lowest BMI at age 35 and the highest BMI at age 53.

Our outcome of body image and body attitude reflects body dissatisfaction and "feeling fat" not only in women with a BMI >25 but also in normal and underweight women. This finding goes along with other studies that describe a stability of body dissatisfaction across life spans independent of objective weight[13] and agrees with our high numbers of weight control (86%). Our rates of ED and SSED (both 4%) in this age cohort were striking, given that ED are typically associated with young age. The high number of EDNOS goes along with Fairburn's findings describing this category as the most frequent ED.[23] Our diagnoses are strengthened by the high scores of the EDI and the GDS. Our prevalence rate of disordered eating is in line with the findings of Hay[24] who showed that problematic eating in elderly is more common than expected and the Innsbruck Study[16] that reported 4.1% of EDs in women over 60 years, without further definition.

Several limitations should be recognized. First, there was a high drop-out rate that limits the generalizability of our findings. Second, given that participants with EDs[25] are more often nonresponders in prevalence studies than controls, our rates of EDs may be underestimated. Third, the methodological assessment using questionnaires is not as reliable as clinical interviews, but should be seen as a first step in a new field with the need of further studies.

In conclusion, the results of this study indicate that the majority of women in Innsbruck aged 60–70 display a Healthy Eating behavior and a normal body weight. Nevertheless, the majority reported dissatisfaction with weight and shape. Although EDs are typical for young women, they do occur in female elderly in various forms and a frequency that should not be undervalued. Therefore EDs should be included in the differential diagnosis of elderly presenting with weight loss, weight phobia, and/or vomiting.

References

1. Carrier J. L'anorexia mentale. Paris: Libraire E. Le Francois, 1979.
2. Dally P. Anorexia tardive—Late onset marital anorexia nervosa. J Psychosom Res 1984;28:423–428.
3. Russell J, Gilbert M. Is tardive anorexia a discrete diagnostic entity? Aust N Z J Psychiatry 1992;26:429–435.
4. Mitchell JI, Hatsukami D, Pyle RL, Eckert ED, Soll E. Late onset bulimia. Compr Psychiatry 1987;28:323–328.
5. Jonas JM, Pope HG, Hudson JI, Satlin A. Undiagnosed vomiting in an older women: Unsuspected bulimia. Am J Psychiatry 1984; 141:902, 903.
6. Hsu G, Zimmer B. Eating disorders in old age. Int J Eat Disord 1988;7:133–138.
7. Gupta MA. Fear of aging: A precipitating factor in late onset anorexia nervosa. Int J Eat Disord 1990;9:221–224.
8. Kellett J, Trimble M, Thorley A. Anorexia after the menopause. Br J Psychiatry 1976;128:555–558.
9. Price WA, Giannini AJ, Colella J. Anorexia nervosa in the elderly. J Am Geriatr Soc 1985;33:213–215.
10. Launer A. Anorexia nervosa in later life. Br J Med Psychol 1978;51:375–377.
11. Clarke DM, Wahlqvist ML, Rassias CR, Strauss BJ. Psychological factors in nutritional disorders of the elderly: Part of the spectrum of eating disorders. Int J Eat Disord 1999;25:345–348.
12. Beck D, Casper R, Andersen A. Truly late onset of eating disorders: A study of 11 cases averaging 60 years of age at presentation. Int J Eat Disord 1996;20:389–395.
13. Webster J, Tiggemann M. The relationship between women's body satisfaction and self-image across the life span: The role of cognitive control. J Genet Psychol 2003;164:241–252.
14. Gupta MA. Concerns about aging and a drive for thinness: A factor in the biopsychosocial model of eating disorders? Int J Eat Disord 1995;18:351–357.
15. Janelli LM. Body image in older adults: A review of the literature. Rehabil Nurs 1986;11:6–8.
16. Pfeiffer KP, Deibl M, Ulmer H. Innsbrucker Frauen Gesundheitsstudie1999. Institute for Biostatistics and Documentation, City of Innsbruck, 1999.
17. Johnson C. Diagnostic survey for eating disorders (DSED). In: Garner DM, Garfinkel PE, editors. Handbook of Psychotherapy for Anorexia Nervosa and Bulimia. New York: The Guilford Press, 1985, pp 34–49.
18. Wittchen HU, Wunderlich U, Gruschwitz, et al. Structured Clinical Interview for DSM-IV (German Version). Göttingen: Hogrefe, 1997, pp 91–96.
19. Garner DM, Olmsted MP, Polivy J. Development and validation of a multidimensional eating disorder inventory for anorexia nervosa and bulimia. Int J Eat Disord 1983;2:15–34.
20. Yesavage JA, Brink TL, Rose TL, et al. Development and validation of a geriatric depression screening scale: A preliminary report. J Psychiatr Res 1982–1983;17:37–49.
21. Sheik JI, Yesavage JA. Geriatric Depression Scale (GDS): Recent evidence and development of a shorter version. Clin Gerontol 1986;5:165–173.
22. Wilson MM, Morley JE. Aging and energy balance. J Appl Physiol 2003;95:1728–1736.
23. Fairburn CB, Bohn K. Eating disorder NOS (EDNOS): An example of the troublesome "not otherwise specified" (NOS) category in DSM-IV. Behav Res Ther 2005;43:691–701.
24. Hay Ph. The epidemiology of eating disorder behaviors: An Australian community-based study. Int J Eat Dis 1998;23:371–382.
25. Fairburn CG, Hay PJ, Welch SL. Binge eating and bulimia nervosa: Distribution and determinants. In: Fairburn CG, Wilson GT, editors. Binge Eating: Nature, Assessment, and Treatment. New York: The Guilford Press, 1993, pp 125.