

Weight concerns and beliefs about obesity in the Norwegian population

S. Tonstad¹, S. Anderssen², J. Khoury¹, L. Ose³, J. Reseland⁴ and L. Retterstøl⁵

Departments of ¹Preventive Cardiology and ⁵Medical Genetics, Ullevål University Hospital, Oslo, Norway; ²Oral Research Laboratory, Faculty of Dentistry, University of Oslo, Oslo, Norway; ³Lipid Clinic, National Hospital, Oslo, Norway; ⁴Department of Sports Medicine, Norwegian School of Sports Sciences, Oslo, Norway

Abstract

Background: The obesity epidemic is a challenge for health systems globally. There has been a focus on obesity in health systems, but it is also important to understand how people describe their weight and their motivation to lose weight.

Objective: To describe the desire to lose weight and beliefs about the causes and treatment of obesity in a representative sample of the Norwegian population.

Design: In a cross-sectional survey, 1019 men and women aged 30–60 years took part in a computer-assisted telephone interview conducted in April 2005. The interview was part of an omnibus questionnaire.

Results: Of all respondents, 76% describing themselves as overweight and 27% of normal-weight respondents wished to lose weight. The main reason for weight loss was better health among men (40%) and better well-being among women (37%). Almost 82% of men and 87% of women believed that heredity is important for obesity. Less than 10% believed that obesity is a disease, while 24% believed that obesity is a disease and has other causes. In answer to the question of what would be the best treatment for overweight and obesity (with more than one response being possible), the majority (91%) believed that a change of diet and exercise is best, while less than 5% believed that treatment by medical specialists, family physicians, dietitians, commercial groups, prescription medication or surgery is best. Only 7% believed that weight loss after a successful weight-loss programme would be completely maintained 2 years later. These percentages did not vary much with age, geographical location, gender or income.

Conclusions: The desire to lose weight was motivated primarily by the desire for better health and well-being. A dichotomy exists in the perceptions of obesity: while the role of heredity was widely recognized, very few believed in the effectiveness of medical treatments.

Keywords: *heredity; obesity treatment; survey; weight loss*

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Introduction

The obesity epidemic is an increasing challenge for health systems globally. As several studies show that the long-term outcome of clinical treatment of obesity is poor, many experts believe that obesity is a chronic relapsing disease requiring lifelong attention. Health authorities in Norway have recently published recommendations (although not guidelines) for the treatment of grade II obesity [body mass index (BMI) ≥ 35 kg m⁻²] without medical complications and grade III obesity (BMI ≥ 40 kg m⁻²) (1). At the same time public health efforts have concentrated on attempts to prevent the development and progression of obesity

because of its inherent medical risks (2). However, concern has been raised about this focus on obesity in health systems. Opponents have argued that most people want to lose weight because of appearance rather than health concerns, and efforts to prevent or treat obesity may contribute to stigmatizing obese people and lead to eating disorders (3). Thus, it is important to gain a better understanding of how people describe their weight and motivation to lose weight. Furthermore, while medical research has made progress in understanding the genetic and biological basis of obesity, little is known about beliefs about the causes of obesity and its treatment among the general public in Norway. The present

survey aimed to assess weight concerns and beliefs about obesity in a representative sample of the Norwegian population.

Subjects and methods

A country-wide survey was performed according to an established protocol among 1019 men and women aged 30–60 years. The interviews were carried out as part of ongoing omnibus interviews conducted by Gallup Norway. The sampling procedure was designed to produce a sample that is representative of the Norwegian civilian population in terms of geographical distribution, gender and age. The sample of telephone numbers was drawn randomly in proportion to the population in each region (“kommune”) in Norway, covering the whole country. A computer-assisted telephone interview (CATI system, Pulse Train, UK) was conducted with the person in each household who had the most recent birthday, within the age limit of the survey. At the end of the interview the respondent was asked about his or her civil status, education and income. Up to five attempts were made to contact each telephone number before abandoning that number. Of all numbers, about 32% had to be abandoned, 59% of the target people refused the interview and 9% responded to the interview. All interviews were completed between 11 and 23 April 2005. Seven questions regarding weight concerns and obesity were chosen to be included in the interview by consensus among the authors, who were all members of the board of the Norwegian Association for the Study of Obesity at the time of the study. Because the concepts of overweight and obesity may not be well discriminated, questions were worded so as to include both concepts as appropriate (Tables 1–3). Data on the reference age, gender, education and geographical distribution of the Norwegian population were obtained from

Statistics Norway. The latest data available were for the year 2003.

The percentages of responses were weighted in accordance with national statistics for the distribution of gender, age and geographical location to take account of the slightly different distribution of the sample compared with the population in regard to these variables. The results are shown as the weighted percentages of those who chose each option in the questionnaire. The analyses in this paper are descriptive rather than inferential and formal statistical testing was not done.

Results

Sample characteristics

The sample was representative of the Norwegian population between 30–60 years of age in regard to gender (48% males in the sample versus 51% in the population), but the northern region of Norway was somewhat underrepresented (12% of the sample versus 19% of the population). Individuals with university education (53% of the sample versus 30% of the population) were overrepresented compared with individuals with high-school education (38% of the sample versus 56% of the population) and elementary education (9% of the sample versus 14% of the population).

Weight concerns

Self-described body weight is shown in Table 1. The desire to lose weight was reported by 34% of men and 48% of women, predominantly among respondents who described themselves as overweight (Table 2). Men were most likely to want to lose weight for better health and well-being and to get in better shape, while women were most likely to want to lose weight for better well-being, appearance and better health; however, these differences were less marked among overweight respondents. Reports of overweight were lower among respondents with university education (31%) than among respondents with high-school (33%) and elementary-school (41%) education.

Beliefs about obesity

About 85% of respondents believed that heredity was very or somewhat important in obesity (Table 3). This proportion was similar in respondents with university (86%), high-school (84%) and elementary-school (82%) education. Furthermore, 33%

Table 1. Self-described weight of the sample

	Men (n=490) (%)	Women (n=529) (%)
How would you describe your own weight?		
Underweight	1.8	4.0
Normal	61.1	66.9
Somewhat overweight	35.6	26.6
Very overweight	0.9	2.0
Not answered	0.7	0.5

Table 2. Desire and reasons for weight loss (weighted percentages)

	All ^a		Normal weight		Overweight	
	Men	Women	Men	Women	Men	Women
<i>n</i>	490	529	293	350	184	153
Do you wish to lose weight?						
Yes	34.4	48.4	15.1	35.3	68.5	85.1
No	62.5	46.5	84.0	59.0	25.1	11.7
Unsure	2.9	4.5	0.9	5.7	6.5	2.6
Not answered	0.2	0.5	0	0	0	0.6
If yes, why do you wish to lose weight? (Could choose several alternatives)						
For appearance	15.9	30.5	11.6	41.1	17.5	20.9
For better health	40.4	28.4	21.7	16.5	46.9	40.7
For better well-being	33.6	37.2	30.4	35.0	35.0	40.1
Because I wish to exercise and get in better shape	27.1	18.9	35.1	16.2	24.3	21.2
Problems with clothes	7.7	15.7	7.4	12.5	7.9	19.1
Other	6.3	9.0	2.1	11.4	7.9	6.8
Not answered	4.6	3.4	6.6	2.1	3.9	3.2

^aIncludes 23 women and nine men who reported that they were underweight. Two of the underweight women wished to lose weight.

believed that obesity is a disease or the combination of a disease with other causes. These proportions did not differ in regard to gender, civil status, education, income or geographical location (data not shown). In regard to the treatment of obesity, only very low percentages of respondents believed that obesity was best treated by hospital specialists, family practitioners, dietitians, commercial groups, surgery, prescription medication or natural remedies, while almost all chose the individual's effort to change diet and exercise as the best option. However, only 7% believed that overweight people who complete a weight-loss programme successfully would retain the weight loss 2 years later.

Discussion

The survey showed that the wish to lose weight was common and was motivated primarily by the desire to improve health and well-being. Respondents generally believed that heredity is an important factor in obesity and 33% thought that obesity was a disease. Belief in medical treatments for obesity was very limited, and over 90% believed that personal change in physical activity and diet was the best method by which to lose weight. To the authors' knowledge, no survey has previously been undertaken to assess the beliefs of the Norwegian population in regard to the causes and treatment of obesity.

These findings indicate that Norwegians see overweight and obesity as a significant threat to

health and well-being. The most common reasons for wishing to lose weight were related to health, well-being, appearance and fitness, confirming previous research in Australia (4) and other data (5). Health, well-being and fitness were the most common reasons among overweight individuals, well ahead of appearance and problems with clothes. Awareness of factors that motivate people to lose weight could help public health programmes that seek to prevent obesity.

Belief in heredity as a somewhat or very important factor in obesity was strong among the respondents; only 14% thought that heredity was not at all or only slightly important. Furthermore, 33% believed that obesity is a disease or both a disease and has other causes. "Other causes" was not specified in the questionnaire. The authors were somewhat surprised that such a large proportion believed in the role of heredity in obesity, and are not aware of other surveys that have addressed these questions. This is in line with the findings from a large number of studies showing that the heritability of BMI is about 0.7 (6).

However, the present findings indicate a dichotomy in the perceptions of obesity. While obesity is seen as a disease by a substantial proportion of respondents and the role of genetics is recognized, medical treatments were not acknowledged. Even though respondents could choose several alternatives to the question on how overweight and obesity may best be treated, only the alternative relating to

Table 3. Beliefs about the causes and treatment of obesity (weighted percentages)

	Men	Women
In regard to the causes of obesity, do you believe that heredity is		
Not at all important	2.7	1.2
Only slightly important	14.0	10.5
Somewhat important	60.7	69.1
Very important	21.0	18.8
Do you believe that obesity is a disease or that it has other causes?		
Disease	8.6	8.5
Has other causes	57.5	50.8
Both a disease and has other causes	20.1	28.0
Unsure or not answered	13.8	12.7
How do you believe that overweight and obesity may best be treated? (Could choose several alternatives)		
By hospital clinics or specialists	2.7	4.2
By family practitioners	1.5	3.7
By dietitians	2.0	5.8
By commercial groups	2.5	5.6
By the individual's effort to change diet and exercise	91.2	90.8
Surgery for extreme overweight	3.8	3.6
By prescription medication	1.6	1.4
By natural remedies	0.8	1.2
Other or not answered	6.5	4.0
If overweight individuals complete a weight-loss programme successfully, what do you believe about their weight 2 years later?		
The majority will maintain the weight that they lost	7.2	6.7
The majority will weigh something between their initial weight and their weight after the programme	43.0	41.1
The majority will be back at their initial weight or higher	42.5	43.0
Unsure or not answered	7.4	9.1

the person's own change in diet and exercise was chosen by the majority. All other alternatives, including prescription medication, were chosen by less than 5%. This finding is similar to that found in a survey conducted in 1990 in the USA, in which less than 1% of respondents thought that diet pills were the best way to lose weight (7). Because prescription medications for obesity have only been used since 1999 in Norway in recent times, their effects may not be known, or if they are known, not considered to be significant. However, it may also reflect a reluctance to treat lifestyle-induced health problems with pills. There are no data to confirm or refute these speculations.

Perceptions and belief about weight may differ between males and females. Women see themselves as overweight at a lower BMI than men (8). The design of the present study did not include actual report of height or weight in relation to self-described categories; thus, the study did not examine how the chosen category related to the actual

BMI. This is a weakness of the study. Given the observation that over 50% of the population in Norway has a BMI >25 kg m⁻² (2) and in the late 1990s about 14% of the Norwegian population in this age group was obese (9, 10), overweight seems to be underreported in the sample. Other limitations of this study relate to the self-report nature of the data. Furthermore, although the sample was selected to be nationally representative based on demographic characteristics including age, gender and geographical location, this aim was clearly not achieved in regard to education. Thus, the responses may not be representative of the less educated part of the population, although differences in responses to the causes and treatment of obesity between those with only elementary- or high-school education compared with those with university education were slight. Finally, the response rate was low; however, this is typical of ongoing Gallup surveys. An omnibus interview including other topics, as used in the present study, may be well suited to questions on overweight and obesity in the population. As discussed previously (11), the likelihood of only selecting interested subjects is reduced and a large sample can be interviewed within a short period. However, the number of questions that may be asked is limited.

In conclusion, the primary motivation to lose weight was for better health and well-being, and most individuals believed that diet and exercise changes would be the best treatment option for overweight and obesity.

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Serena Tonstad, MD, PhD

Department of Preventive Cardiology Ullevål University Hospital
NO-0407 Oslo Norway

Tel: +47 2211 7939

Fax: +47 2211 9975

E-mail: serena.tonstad@uus.no