Relative Weight and Sickness Absence

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Abstract

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Objectives: To examine whether high relative weight increases the risk of future sickness absence and to what extent any differences in short and long absence periods can be explained by specific obesity-related disorders, general health, and working conditions.

Research Methods and Procedures: The study included 5386 female and 1452 male employees of the city of Helsinki surveyed in 2000 to 2002. Survey data were linked to sickness absence records until the end of 2004 (mean follow-up time 2.9 years).

Results: Women and men with higher relative weight had clearly more short (1 to 3 days) and long (>3 days) periods of sickness absence during follow-up. The associations were rather monotonic and stronger for long periods. In women, adjusting for arthrosis and gout decreased the excess risk of long periods among those who were obese. In men, arthrosis, gout, and metabolic disease explained some of the excess risk for both short and long periods among the obese. Adjusting for physical functioning and self-rated health decreased the excess risk for short and long periods of sickness absence among obese women and men. Working conditions had almost no effect on the association between BMI and short or long periods of sickness absence.

Discussion: Obesity increases the risk of having short and long periods of sickness absence. This finding can be partly explained by measures of general health and specific obesity-related disorders. Healthy weight maintenance is a crucial issue in promoting occupational functioning and minimizing the costs associated with sickness absence.

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Introduction

Overweight and obesity are rapidly increasing public health problems in many populations (1–3). They have negative consequences for one's health and incur large financial burden to societies in the form of treatment and medical expenditure. Obesity has been estimated to account for up to 7% of all health care costs (4–6). Another large item of expenditure arises from lost productivity. The main costs to work life caused by obesity consist of sickness allowances and disability pensions (7,8).

Relatively few previous studies have examined the association between relative weight and sickness absence (4,9–12). Although the results vary somewhat, the studies generally have found more absenteeism among the obese compared with those of normal weight. However, most of these studies have used cross-sectional data, relied on retrospective self-reports of sickness absence, and used simplified measures of sickness absence. Moreover, most previous studies have focused on the economic costs of obesity, or relative weight has been examined among a large group of correlates of sickness absence. This has allowed little opportunity for the analysis of potential explanations of the association between relative weight and sickness absence.

Sickness absence has been shown to predict mortality (13,14) and future disability pension (15). The results have been clearer for longer than for shorter periods of sickness absence. However, apart from illness, other factors may also influence sickness absence. Above all, poor working conditions may lower the threshold of taking sick leave (16,17). Such working conditions include physical and psychosocial strain and poor workplace climate. Health status and working conditions are, therefore, the main factors that could explain the increased level of sickness absence among the overweight and the obese. People with excess weight may suffer from many health problems, but they may also experience their work to be physically or mentally strenuous or face discrimination in the workplace (18–21).

This study examined the associations between relative weight and sickness absence and the potential explanations for the observed associations. A large prospective dataset was used, with register-based sickness absence records de-

rived from middle-aged women and men employed by the city of Helsinki, the largest employer of Finland. Because the determinants of sickness absence may differ by the length of the absence, short and long periods were examined separately.

The specific aims were 1) to examine whether high relative weight increases the risk of future short and long periods of sickness absence and 2) to explain any differences in sickness absence in terms of specific obesity-related disorders, general health measures, and working conditions.

Research Methods and Procedures

Data

The study was conducted among middle-aged employees of the City of Helsinki (22). The City of Helsinki is the largest employer in Finland, with nearly 40,000 employees. The baseline data were collected by independent cross-sectional surveys in 2000, 2001, and 2002. The personnel register was used to identify employees who, in these consecutive years, reached the age of 40, 45, 50, 55, or 60 years, and a self-administered questionnaire was subsequently forwarded to them by mail (n = 13,346). The response rate was 69% among women and 60% among men. Women more often than men work in health care and public day care, whereas more men work in technical branches and public transport. The data are generally representative of the target population. There were no differences in response activity by occupational sector and contract type (permanent vs. temporary employees), but the response rate was slightly lower in men, younger people, manual workers, and women who had been on sick leave during the year of the survey. However, even in the latter cases, differences between the extreme categories were only a couple of percentage points (23).

The questionnaire data were prospectively combined with sickness absence records derived from the employer's (City of Helsinki) register using personal identification numbers (a unique number assigned to each Finnish citizen). However, the linkage was only possible for 77% of women and 82% of men who, on returning the questionnaire, had given a written permission for such linkage. Thus, the final data included 52% of the original sample. Background characteristics of the study sample (age, occupational class, income, type of employment contract, occupational sector) were similarly associated with sickness absence among those who gave and did not give permission for the linkage. Sickness absence data could not be found for 16 respondents because the number code had been removed from the questionnaire. Furthermore, 70 women and 12 men with missing information on weight or height and 14 women who reported that they were pregnant were excluded from the study. Thus, the study includes 5386 women and 1452 men, reflecting the fact that the employees of the City of Helsinki are predominantly women.

Follow-up time was measured in person-years, beginning the day the respondent had returned the questionnaire. The respondents were followed until the end of 2004 or until the work contract terminated. All periods of absence for reasons other than sickness were subtracted from the follow-up time. The overall number of person-years in the analyses was 19,974, and the mean follow-up time was 2.9 years.

Study Variables

Relative Weight. Relative weight was measured by BMI, calculated from self-reported weight and height using the standard formula: weight in kilograms divided by height in meters squared. Relative weight was analyzed in sex-specific BMI deciles and divided into categories of normal weight (<25 kg/m^2), overweight (25 to 30 kg/m^2), and obese (>30 kg/m^2) (5). Because $<3\%$ of the respondents were underweight (<18.5 kg/m^2), they were included in the normal weight category.

Sickness Absence. The register included the beginning and end dates of all sick leave periods. All consecutive and overlapping periods of sickness absence were combined. For periods up to 3 days, employees are entitled to complete their own certificates, whereas for periods >3 days, a medical certificate is required. Therefore, the occurrence of short (1 to 3 days) and long (>3 days) periods of sickness absence were examined separately.

Health Status and Working Conditions. Specific obesity-related disorders were derived from a checklist asking whether a doctor had ever diagnosed any of the specific diseases listed. The answers were combined into four larger categories. The first category consisted of arthrosis and gout. The category labeled as circulatory diseases included angina pectoris, myocardial infarction, cerebrovascular disorders, and claudication. Metabolic disease consisted of diabetes and thyroid disease. Low back pain was determined by a separate question asking whether the respondent had ever suffered from localized low back pain not radiating to the leg or foot.

Physical and mental functioning were measured by the component summaries of the Short Form 36 health questionnaire (24). The Short Form 36 assesses health status in eight domains, which are compressed into two component summaries by means of factor analysis. For the purposes of this study, the continuous scores were divided into quartiles. Limiting long-standing illness was elicited by asking whether the respondents had any long-standing illness, disability, or infirmity and a follow-up question asking whether this illness/disability restricts work or limits daily activities. Furthermore, the participants were asked to rate their health on a five-point scale, with the response alternatives ranging from excellent to poor. The respondents were dichotomized in the customary way between those reporting good and fair health.

Working conditions included a single-item question asking the respondent to evaluate the physical strenuousness of

Table 1. Characteristics of the follow-up data by BMI categories among women and men

	Number of respondents	Person-years at follow-up	Number of sickness absence periods		Number of sickness absence periods /100 person-years*	
			Short periods	Long periods	Short periods	Long periods
Women						
<25 kg/m^2	2,922	8,524	11,985	5,727	136.5	67.0
25 to 30 kg/m^2	1,693	4,836	7,318	4,381	155.5	91.2
>30 kg/m^2	771	2,163	4,430	2,844	211.6	132.6
Men						
<25 kg/m^2	567	1,783	1,568	760	85.4	42.3
25 to 30 kg/m^2	664	2,026	1,930	1,238	96.2	61.5
>30 kg/m^2	221	642	749	624	126.4	106.0

* Adjusted for age.

her/his job on a four-point scale. Workplace climate was operationalized using questions on work fatigue, job satisfaction, and workplace bullying. Work fatigue was measured by a scale constructed at the Finnish Institute of Occupational Health on the basis of emotional exhaustion subscale of the Maslach Burnout Inventory. The scale consisted of six items asking about feelings of being emotionally overextended and exhausted by one's work (e.g., I feel used up at the end of the workday) (25). This scale has previously been shown to be associated with weight gain in these data (26). Job satisfaction was measured using a single-item question derived from an inventory asking satisfaction with different areas of life. Bullying at work was measured by two questions. The first asked whether bullying existed in the workplace and the second whether the respondent was presently being subjected to bullying.

Confounders

Age and occupational class were identified as potential confounding variables. Age was analyzed using the five age groups of the questionnaire. Occupational class was categorized into managers and professionals, semiprofessionals, routine non-manuals, and manual workers (22).

Statistical Methods

The association between relative weight and sickness absence was first examined by calculating the rate of short and long periods of sickness absence per 100 person-years in sex-specific BMI deciles. The rates are reported with 95% confidence intervals (CIs).[1]

The effect of specific obesity-related disorders, general health, and working conditions on the association between BMI and sickness absence was examined using Poisson regression. The number of sickness absence periods was used as the outcome. This outcome effectively uses the information when one individual has several sickness absence periods that are not dominated by single prolonged absence periods. In these analyses, BMI was divided into normal weight, overweight, and obese categories. The results are presented as rate ratios with 95% CIs. There was moderate overdispersion that was corrected by scaling. This does not affect the point estimates but increases SEs and, thus, inflates the CIs (27). We first fitted a base model showing the rate ratio for the overweight and obese categories compared with those of normal weight, adjusted for age and occupational class. We then examined whether this association was affected by the adjustment for specific obesity-related disorders, measures of general health, and working conditions, one at a time and jointly.

Because the level of sickness absence differs between women and men, all analyses were conducted separately for women and men. SAS version 8.02 for Windows (SAS Institute, Cary, NC) was used for the analyses.

Results

Table 1 shows key characteristics of the follow-up data and age-adjusted rates of sickness absence per 100 person-years for the BMI categories. A third of women and nearly one half of men belonged to the overweight category, and for both sexes, one in seven respondents was classified as obese. Both women and men showed clear differences in short and long periods of sickness absence by BMI categories. The relative differences between BMI categories were larger in long periods, and in short periods, the difference between the normal weight and the overweight categories was small. Women clearly had a higher overall level of sickness absence than men.

[1] Nonstandard abbreviation: CI, confidence interval.

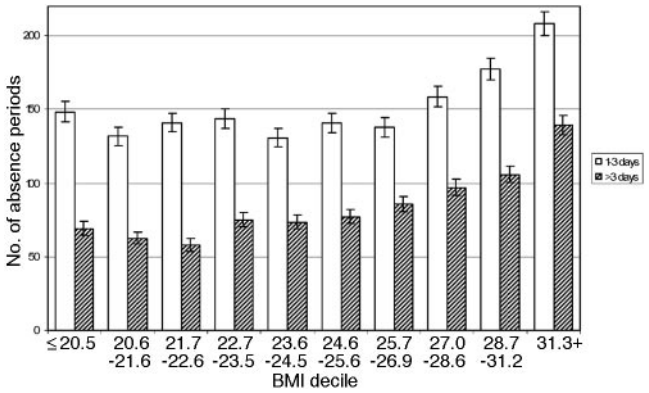

Figure 1: The number of short (1 to 3 days) and long (>3 days) periods of sickness absence per 100 person-years (95% CI) in BMI deciles among women.

The association between relative weight and sickness absence was more carefully examined by dividing BMI into deciles. Among women (Figure 1), the number of short periods of sickness absence was stable up to BMI of 27 kg/m^2 but increased sharply after that. The number of long periods of sickness absence was slightly higher in the first two BMI deciles than in the third but increased quite monotonically thereafter. Among men (Figure 2), there was slight curvilinearity of the association between BMI and sickness absence in the bottom BMI deciles, but in the subsequent deciles, the number of both short and long periods gradually increased with increasing BMI.

Table 2 shows the rate of short and long periods of sickness absence among overweight and obese women compared with those of normal weight. After adjusting for age and occupational class, among obese women, the risk for short periods was 48% and that for long periods was 77% higher than among women of normal weight. Being overweight slightly increased the risk for both short and long periods of absence. The adjustment for specific obesity-related disorders had a minimal effect on the association between BMI and short periods of sickness absence, but arthrosis and gout explained some of the excess long periods among the obese. Of the general health measures, physical functioning and self-rated health explained about one third of the excess short periods and nearly one half of the long periods. Adjusting for working conditions had practically no effect for either short or long periods. Adjusting for all three groups of factors together had no larger effect than adjusting for general health measures alone.

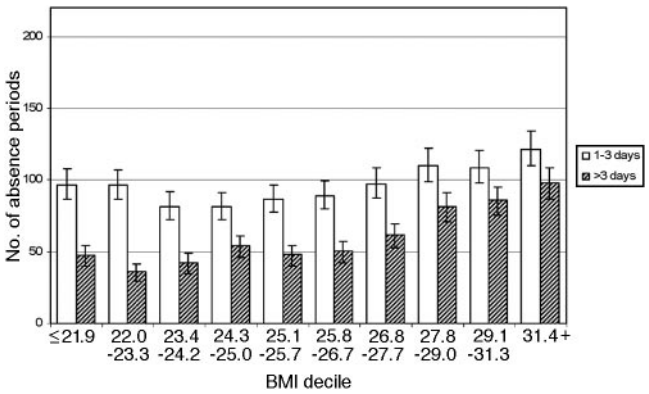

Figure 2: The number of short (1 to 3 days) and long (>3 days) periods of sickness absence per 100 person-years (95% CI) in BMI deciles among men.

Among men, obesity increased the risk for short periods of sickness absence by about one third and more than doubled the risk for long periods (Table 3). While being overweight increased the risk of long periods, there was no statistically significant difference in short periods between overweight men and those of normal weight. Adjusting for arthrosis and gout and metabolic disease decreased the excess risk for short and long periods among the obese, and adjusting for all four specific obesity-related disorders together accounted for about one third of these associations. Physical functioning and self-rated health more strongly explained the association between BMI and sickness absence for both short and long periods. Working conditions had almost no effect on the associations between BMI and short or long periods of sickness absence. For men, the three groups of factors together explained more than two thirds of the association between BMI and short periods and about one half of the association between BMI and long periods.

Discussion

We examined the association between relative weight and sickness absence and the potential roles of various factors in explaining this association among middle-aged employees of the City of Helsinki.

Higher relative weight was associated with both short and long periods of sickness absence. The associations became gradually stronger with increasing relative weight. However, slight curvilinearity was found in the bottom BMI deciles, which is consistent with evidence of increased mortality among the underweight (28,29). For women, the pattern of short periods was different, showing increased absenteeism only after a BMI of 27 kg/m^2.

We previously reported a gradual decrease in physical functioning with increasing BMI using the baseline data of this study, although the decrease accelerated among those with the highest BMIs, especially in men (19). Differences in mental functioning between BMI deciles were small, and in women, there was even slight improvement in mental functioning with increasing relative weight. Sickness absence indicates temporary inability to carry out work-related tasks, and, thus, may be considered as a measure of functional health, incorporating both physical and mental com-

Table 2. Rate ratios (95% CI) for short (1 to 3 days) and long (>3 days) periods of sickness absence among overweight and obese women compared with those of normal weight. Change in rate ratios among the overweight and the obese compared with the normal-weight due to adjustment for obesity-specific disorders, general health, and working conditions.

	Short periods			Long periods		
	Normal-weight	Overweight	Obese	Normal-weight	Overweight	Obese
Base model*	1.00	1.10 (1.02 to 1.18)	1.48 (1.37 to 1.61)	1.00	1.27 (1.17 to 1.38)	1.77 (1.61 to 1.94)
Obesity-specific disorders						
Arthrosis and gout	1.00	1.09 (1.02 to 1.17)	1.45 (1.34 to 1.58)	1.00	1.24 (1.15 to 1.35)	1.66 (1.51 to 1.83)
Circulatory diseases	1.00	1.09 (1.02 to 1.17)	1.48 (1.36 to 1.60)	1.00	1.27 (1.17 to 1.38)	1.76 (1.60 to 1.93)
Metabolic disease	1.00	1.10 (1.02 to 1.17)	1.46 (1.35 to 1.59)	1.00	1.27 (1.17 to 1.38)	1.73 (1.58 to 1.90)
Low back pain	1.00	1.10 (1.02 to 1.17)	1.48 (1.36 to 1.60)	1.00	1.27 (1.17 to 1.37)	1.76 (1.60 to 1.93)
All obesity-specific disorders	1.00	1.08 (1.01 to 1.16)	1.43 (1.32 to 1.55)	1.00	1.24 (1.14 to 1.34)	1.64 (1.49 to 1.79)
General health						
Physical functioning	1.00	1.03 (0.96 to 1.10)	1.32 (1.21 to 1.43)	1.00	1.15 (1.06 to 1.24)	1.44 (1.32 to 1.58)
Mental functioning	1.00	1.10 (1.03 to 1.18)	1.49 (1.37 to 1.61)	1.00	1.27 (1.17 to 1.37)	1.76 (1.61 to 1.93)
Limiting long-standing illness	1.00	1.09 (1.02 to 1.16)	1.44 (1.33 to 1.55)	1.00	1.25 (1.15 to 1.35)	1.66 (1.52 to 1.81)
Self-rated health	1.00	1.06 (0.99 to 1.13)	1.34 (1.24 to 1.45)	1.00	1.19 (1.11 to 1.29)	1.48 (1.36 to 1.62)
All measures of general health	1.00	1.03 (0.97 to 1.10)	1.31 (1.21 to 1.42)	1.00	1.14 (1.06 to 1.23)	1.42 (1.30 to 1.55)
Working conditions						
Physical strain	1.00	1.10 (1.02 to 1.17)	1.48 (1.37 to 1.61)	1.00	1.27 (1.17 to 1.37)	1.76 (1.61 to 1.93)
Work fatigue	1.00	1.09 (1.02 to 1.17)	1.46 (1.34 to 1.58)	1.00	1.26 (1.16 to 1.37)	1.72 (1.57 to 1.89)
Job satisfaction	1.00	1.09 (1.02 to 1.17)	1.48 (1.36 to 1.60)	1.00	1.27 (1.17 to 1.37)	1.76 (1.60 to 1.93)
Bullying in workplace	1.00	1.09 (1.02 to 1.16)	1.47 (1.36 to 1.60)	1.00	1.26 (1.16 to 1.36)	1.75 (1.59 to 1.92)
Being bullyed	1.00	1.10 (1.02 to 1.17)	1.48 (1.37 to 1.61)	1.00	1.27 (1.17 to 1.38)	1.76 (1.60 to 1.93)
All working conditions	1.00	1.08 (1.01 to 1.16)	1.46 (1.35 to 1.58)	1.00	1.25 (1.15 to 1.35)	1.72 (1.57 to 1.88)
All adjustments	1.00	1.03 (0.97 to 1.10)	1.31 (1.21 to 1.41)	1.00	1.13 (1.05 to 1.22)	1.40 (1.28 to 1.53)

* Adjusted for age and occupational class.

Table 3. Rate ratios (95% CI) for short (1 to 3 days) and long (>3 days) periods of sickness absence among overweight and obese men as compared with those of normal weight. Change in rate ratios among the overweight and the obese compared with the normal-weight due to adjustment for obesity-specific disorders, general health, and working conditions.

	Short periods			Long periods		
	Normal-weight	Overweight	Obese	Normal-weight	Overweight	Obese
Base model*	1.00	1.11 (0.94 to 1.31)	1.32 (1.06 to 1.64)	1.00	1.42 (1.17 to 1.72)	2.07 (1.64 to 2.62)
Obesity-specific disorders						
Arthrosis and gout	1.00	1.10 (0.94 to 1.30)	1.25 (1.01 to 1.56)	1.00	1.40 (1.16 to 1.69)	1.90 (1.51 to 2.39)
Circulatory diseases	1.00	1.09 (0.93 to 1.28)	1.31 (1.05 to 1.63)	1.00	1.38 (1.14 to 1.68)	2.06 (1.64 to 2.59)
Metabolic disease	1.00	1.11 (0.94 to 1.30)	1.25 (1.00 to 1.56)	1.00	1.41 (1.16 to 1.71)	2.01 (1.59 to 2.54)
Low back pain	1.00	1.11 (0.94 to 1.31)	1.32 (1.06 to 1.64)	1.00	1.42 (1.17 to 1.72)	2.08 (1.65 to 2.62)
All obesity-specific disorders	1.00	1.08 (0.92 to 1.27)	1.19 (0.95 to 1.49)	1.00	1.36 (1.13 to 1.65)	1.84 (1.46 to 2.32)
General health						
Physical functioning	1.00	1.08 (0.93 to 1.27)	1.19 (0.96 to 1.47)	1.00	1.37 (1.14 to 1.64)	1.77 (1.42 to 2.21)
Mental functioning	1.00	1.09 (0.93 to 1.29)	1.28 (1.03 to 1.59)	1.00	1.38 (1.14 to 1.68)	1.99 (1.59 to 2.51)
Limiting long-standing illness	1.00	1.11 (0.94 to 1.30)	1.30 (1.04 to 1.61)	1.00	1.40 (1.16 to 1.69)	2.02 (1.61 to 2.54)
Self-rated health	1.00	1.07 (0.91 to 1.25)	1.18 (0.96 to 1.47)	1.00	1.33 (1.11 to 1.60)	1.80 (1.44 to 2.25)
All measures of general health	1.00	1.06 (0.91 to 1.24)	1.14 (0.92 to 1.41)	1.00	1.32 (1.11 to 1.58)	1.69 (1.36 to 2.10)
Working conditions						
Physical strain	1.00	1.10 (0.93 to 1.30)	1.31 (1.05 to 1.63)	1.00	1.43 (1.18 to 1.74)	2.08 (1.65 to 2.62)
Work fatigue	1.00	1.11 (0.94 to 1.30)	1.30 (1.05 to 1.61)	1.00	1.40 (1.16 to 1.69)	2.04 (1.63 to 2.56)
Job satisfaction	1.00	1.10 (0.94 to 1.30)	1.30 (1.05 to 1.62)	1.00	1.41 (1.17 to 1.71)	2.06 (1.64 to 2.59)
Bullying in workplace	1.00	1.11 (0.94 to 1.30)	1.30 (1.05 to 1.62)	1.00	1.41 (1.17 to 1.70)	2.03 (1.62 to 2.54)
Being bullyed	1.00	1.10 (0.93 to 1.30)	1.29 (1.04 to 1.61)	1.00	1.40 (1.15 to 1.69)	2.03 (1.62 to 2.56)
All working conditions	1.00	1.09 (0.93 to 1.28)	1.28 (1.04 to 1.59)	1.00	1.41 (1.17 to 1.70)	2.01 (1.61 to 2.51)
All adjustments	1.00	1.04 (0.89 to 1.21)	1.08 (0.87 to 1.33)	1.00	1.31 (1.09 to 1.56)	1.56 (1.25 to 1.95)

* Adjusted for age and occupational class.

ponents. Because the association between relative weight and sickness absence was relatively monotonic, this suggests being moderately overweight does not remarkably decrease functional health.

The second aim was to examine the contribution of potential explanatory factors to the association between relative weight and sickness absence. Specific obesity-related disorders only modestly explained the association between relative weight and sickness absence. Although some of these disorders may seriously limit functioning only at older ages, the disorders examined rank high as causes of sickness absence and early retirement (8). However, in our study population, the prevalence of these disorders was relatively low. Many of these disorders can be rather serious, and those with the most serious health problems may have been selected out of the study. It is possible that obesity-related disorders explain more of the association between relative weight and poor health among those who are not active in worklife.

The measures of general health explained roughly one half of the association between relative weight and sickness absence. Adjusting for these measures decreased the excess absence periods not only among the obese but also among the overweight. Of the general health measures, physical functioning and self-rated health were especially important. These measures are well-established summary measures of overall health and functioning. Self-rated health predicts future morbidity and mortality, but it is also affected by personal judgment of one's health status (30,31). Similarly, sickness absence is influenced by one's personal feeling to be absent from work or to see a doctor to get a certificate. Self-rated health may also index health problems that have not yet been diagnosed.

Apart from health status, physical and psychosocial working conditions were assumed potentially to account for the association between relative weight and sickness absence. However, their effect turned out to be non-existent. The baseline adjustment of occupational class may have attenuated the effect of working conditions. A direct measure of workplace climate was not available, but the several indicators included would presumably have shown an effect if workplace climate had any major influence.

Only one previous study has examined the association between relative weight and absenteeism using several measures of sickness absence. In a Belgian study (10), short periods of absence (at least one period $\leq$7 days) were not associated with BMI or waist circumference, but long periods ($>$7 days) and high number of absence days were. This is in contrast to our study, which found relative weight to be associated with both short and long absence periods. Stronger associations were evident for long periods. This may be explained by the fact that a large part of short periods is inflicted by common colds and other minor troubles that are distributed quite evenly in the population. Our study included longer follow-up time and more effective measurement of sickness absence than the Belgian study (10), but the discrepancy in short periods may also be explained by cultural differences between the two countries or discrepancies in structural factors such as the insurance system. We also found that the factors explaining the association between relative weight and sickness absence were largely similar for short and long periods.

One of the strengths of this study was comprehensive data that included both women and men. Sickness absence was based on registers and analyzed prospectively, using statistically powerful methods that take into account that one individual can have several periods of sickness absence. We used data from only those respondents who had given permission to link the survey data to registers. However, because the background characteristics were similarly associated with sickness absence among those who gave and did not give permission, this is unlikely to have influenced the results.

BMI was calculated from self-reported height and weight. In surveys, people tend to underestimate their weight, which may lead to misclassification of overweight and obesity. However, to affect the observed associations between BMI and sickness absence, such underestimation had to be relatively large and systematic. Information on the health status measures and working conditions was also based on self-reports, and if they were inadequately reported, this would have reduced their explanatory power. However, the indicators were measured in standard survey ways using well-known reliable and validated instruments. The healthy worker effect, implying that workers with major disability have been excluded, may have reduced the effect of the health status measures, because such disabilities may be over-represented among the obese. However, even if there was disproportionate selection out of the study among the obese, the association between relative weight and sickness absence in our study was strong. A medical certificate is required among Finnish municipal employees for absence periods $>$3 days; this number of days was used as the cut-off point for "long" absences. In many other countries, longer absence periods are allowed without a medical certificate. We therefore performed the analyses also using 14 days as the cut-off point, but the results were similar to those for the lower cut-off point.

In conclusion, our study showed that high relative weight is associated with both short and long periods of sickness absence. Indicators of general health were important explanatory factors of this association. Excess weight is related not only to a number of specific disorders but also to various other complaints that weaken work ability and are summarized by these more general health measures. Promoting healthy weight maintenance, therefore, is a crucial issue for all parties interested in promoting occupational functioning and minimizing the costs associated with sickness absence.

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