

Eating Patterns of Overweight Rural and Small Town Women and Men

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Obesity is a serious health problem in our area. A recent North Dakota Health Department study finds 25.6 percent of adult North Dakotans at risk from obesity, higher than the average for other states in similar studies.

Health risks of obesity are documented in the recent National Institutes of Health statement **Health Implications of Obesity**, in which mortality rates are shown to rise steeply with each level of weight gain.

Traditional weight loss methods have been largely unsuccessful, and many researchers now emphasize the need for lifestyle change instead.

In this study, 52.5 percent of respondents reported themselves as somewhat or much overweight.

Purposes of the Study

Purpose of this study was to determine the lifestyle patterns of adults in a western Dakotas area selected for a three-year wellness intervention pilot program. Findings will help establish needs and direction of this program, conducted by **Home Economists for Healthy Living** (a wellness board consisting of home economists in extension, education, business and related fields). A follow-up study is planned for October 1987 to measure changes over the three-year period.

The Sample

The sample of 400 was drawn from telephone listings in Adams, Bowman and Hettinger Counties in North Dakota, and Perkins and Harding Counties in South Dakota. Study forms were mailed, with a 74.5 percent return.

About half the respondents were under age 55. One-third live on farms or ranches, two-thirds were rural non-farm or living in small towns (population 1,700 or less).

Data was analyzed at the NDSU computer center, through assistance of the North Dakota Cooperative Extension Service.

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The Research Instrument

The instrument was a five-page study form focusing on eating patterns, and other lifestyle factors. It was designed in consultation with Alberta Dobry, of the Home Economics Education Institute, Guendoline Brown, chairman of the Department of Food and Nutrition Department, and Patricia Murphy, Director of Teachers Education, North Dakota State University.

Overweight Women

Fifty-eight percent of the women, a total of 121, reported themselves somewhat or much overweight and make up the overweight group. The non-overweight group includes 88 women.

Women in the overweight group have made many unsuccessful attempts to lose weight. In the past three years, only 18 percent did not attempt to this; 38 percent made three or more efforts. Only 28 percent were able to maintain weight loss for eight months. These women are much more likely than the non-overweight women to say they weight more now than three years ago.

Overweight does run in families, as other studies show. Fifty-eight percent of these overweight women report having overweight husbands. Those reporting overweight children were too small to show significant differences, but of the 26 mothers reporting overweight children, 21 were themselves overweight.

Eating Patterns

The overweight women were significantly more likely than the non-overweight to report these patterns: they eat rapidly, eat between meals several times during the day, usually snack while watching television, eat too much, usually eat two or more servings at mealtime, eat many high-sugar and high-fat foods, and want more when they eat something sweet.

In addition, but not of statistical significance, the overweight group was more likely to watch TV during meals, to like eating sweets, have a different weekend eating pattern than weekday, have foods available and in sight through the day, and to eat breakfast. They were somewhat less likely to eat recommended amounts of three of the four food groups: fruit/vegetable, meat/protein, and milk. Again not significantly, their family members were more likely to eat many high-sugar and high-fat foods, eat rapidly,

eat three meals a day, eat between meals several times during the day, snack while watching television and to watch TV during meals.

The overweight women said the two problems contributing most to their overeating were eating when tense, worried, angry or emotional and the habit of snacking through the day.

Other Factors

The overweight women were significantly less likely to be active. Only 55 percent reported being active or very active, compared with 76 percent of the non-overweight women.

The overweight women reported feeling more stressed, more often anxious, nervous or worried, and they were less likely to report being usually happy and content.

There were no differences between the two groups in whether they smoked, lived alone, lived in town or on farms and ranches. There were significant differences in age. The overweight group was younger, more likely to be in the 35-54 age category, and less likely to be age 70 or over.

Overweight Men

The overweight group of men includes 31 males who reported being somewhat or much overweight (37 percent). The non-overweight group includes 53 who reported average weight or under.

These overweight men also made many weight loss attempts in the past three years: only 26 percent did not. But, as with the women, most were unsuccessful in keeping off lost weight. More than one-fourth of these men weigh more now than three years ago. Sixty-two percent said their wives are also overweight.

Eating Patterns

Overweight men were significantly more likely than the non-overweight to report that they eat too much, eat two or more servings at meals, and want more when they eat something sweet. Unlike the overweight women, they reported in significant numbers, 52 percent, that they do not eat breakfast nor eat three meals a day. In a near significant finding, only 16 percent of the overweight men ate recommended amounts of fruits and vegetables, compared with 34 percent of non-overweight men.

They were also less likely, but not significantly, to eat recommended amounts of bread and cereals group and the milk group. They were somewhat more likely to eat recommended amounts from the meat group than the non-overweight men.

These men said the problems contributing most to their overeating are eating large amounts of food at meals and the habit of snacking through the day.

Other Factors

The overweight men were significantly less active; 38 percent reported being inactive, compared with only 17 percent of the non-overweight. One-third said exercising takes too much effort, compared with only 8 percent of the non-overweight.

No significant differences between the two groups in stress factors were found, although the overweight men were somewhat less likely to talk to friends and relatives about personal problems or to report themselves happy and content. They were more likely to say people should talk about their problems.

The overweight men were less likely to smoke, 19 percent compared with 34 of the non-overweight group, but this is not a significant finding. They also tend to sleep more hours and to live in town rather than on farms and ranches.

Again, as with the women, overweight men were a younger group; 61 percent were under 55, compared with only 35 percent of the non-overweight men. Many were in the youngest group and few were age 70 or over.

Totals

Of the total subjects in this study, 30 percent seldom ate breakfast; 37 percent said they eat too much; 45 percent ate two or more servings of food at meals; 30 percent ate many high-sugar and high-fat foods; 52 percent ate rapidly; 38 percent ate between meals several times a day; 27 percent usually snacked while watching TV; 39 percent usually watched TV during meals (of their families 46 percent usually watched TV during meals, and 37 percent usually snacked while watching TV).

In regard to nutrition, of the total respondents, only 34 percent "nearly always" or "often" ate the recommended four servings of fruits and vegetables; 45 percent nearly always or often ate four servings of bread and cereals; 78 percent ate two servings from the meat/protein group; 48 percent drank two glasses of milk or equivalent from the milk group. Only 36 persons, 12 percent, reported eating recommended amounts of all four food groups even as regularly as "often."

Conclusions

Nearly all the habits usually considered poor eating patterns by nutritionists were more prevalent among the overweight and their families. An exception is that overweight women were somewhat more likely to eat breakfast, a recommended pattern not practiced by the overweight men. The overweight women and men tended to be less likely to eat recommended amounts of the four food groups, especially of the fruits and vegetables, which are most often the low calorie foods.

Inactivity is strongly related to overweight, here as in other research. Stress is certainly present, whether as a result of overweight or as a factor which causes overeating and compulsive eating.

The relatively young age of both overweight women and men is an area of concern. These are parents with less than desirable eating and exercise habits, which have already caused them problems, and which can be expected to be even more serious for their children, because they presumably learned them at a younger age. Other studies confirm that obesity is an increasing problem among children and adolescents.

Table 1. Eating patterns of overweight women and men.

	Percent			
	Women		Men	
	Overweight	Non-Owt.	Overweight	Non-Owt.
I eat breakfast* (no)	75 (25)	67.8 (32.2)	48.4 (51.6)	70.6 (29.4)
Usually eat 3 meals a day	71.6	71.4	48.4	76.5
I sit down while eating	90	94.1	93.6	98.1
I eat too much	60.8	20.7	48.4	3.8
I eat 2 or more servings at meals	46.3	38	66.7	41
I eat rapidly	61.5	39.5	63.3	48
I eat many high- sugar, high-fat foods	36.5	18.1	42.9	23.9
I like eating sweets	42.5	30.2	38.7	27.4
When I eat something sweet, I want more	37.5	22.4	25.8	8.2
I eat between meals several times during the day	51	27.5	32.3	25.5
I usually snack while watching TV	31.2	19.7	32.3	24
I usually watch TV during meals	43	38	41.9	28.8
I have foods available and in sight through the day	51	43	27.6	35.3
My weekend eating pattern is different from weekdays	33	24.1	29	21.6
Eat at least 4 servings of veg/fruit each day	34.8	43	16.1	34
Eat 4 servings of bread/cereals each day	46.7	46	35.5	46
Eat 2 servings from meat/protein group each day	80.7	85.1	74.2	68.6
Drink 2 glasses milk or equivalent from milk group each day	42	55.2	38.7	48.1
I would like to change some of my eating habits	84	39.5	74.2	26.5

*These responses: "yes," "always or almost always," and "often," are recorded as positive answers.

Table 2. Age distribution of overweight women and men.

Age	Percent			
	18-34	35-54	55-69	70 or over
Women				
Overweight	19.2	45.8	27.5	7.5
Non-overweight	22.7	31.8	22.7	22.8
Men				
Overweight	29	32.3	25.8	12.9
Non-overweight	21.2	13.4	40.4	25

Under age 55: 65% of the overweight women
54.5% of non-overweight women
62.3% of overweight men
34.6% of non-overweight men

In regard to the few people age 70 and over who are overweight in this study, loss of appetite with aging could be a factor, but one is inclined to draw an ominous conclusion: Dr. Maria Simonson, director of the weight clinic at Johns Hopkins University states it bluntly, "Few very old people are truly obese. That's because fat people die younger."

The findings in this study indicate a need for change in certain lifestyle patterns which influence obesity.

However, a positive finding is that more than 60 percent of respondents said they want to change eating and exercise habits, and they want to lose weight.

A community wellness intervention program, such as the pilot program launched by **Home Economists for Healthy Living**, directed toward the prevention and reduction of obesity, appears to be not only needed, but desired by the majority of respondents in this study.

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morphological or chemical factors that can be incorporated into varieties to discourage bird feeding should prove useful in an integrated pest management program. Changes in a sunflower variety that make it less preferred or more difficult to feed upon by blackbirds should also increase the effectiveness of conventional methods of dispersing birds from the field. And for every incremental decrease achieved in sunflower seed feeding by birds, there should be a concurrent increase in feeding on insects and weed seeds, many of which are pests in agricultural crops (McNicol et al., 1982; Linz, 1984). We believe bird resistant varieties should play an important role in integrated pest management programs for sunflower in the future.

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