Prevalence of Overweight Defined by Body Mass Index in a Rural Adult Population of Bangladesh

Sir,

Overweight and obesity in adults have been linked to a host of chronic disorders, including coronary heart disease, stroke, hypertension, hyperlipidaemia, diabetes mellitus type 2, osteoarthritis, gall stones, and some cancers (1). Although body mass index (BMI) is commonly used as a criterion of overweight in most countries, no population-based data are available in Bangladesh which allows international comparison. In this cross-sectional descriptive study, we present age- and sex-specific distribution of BMI and prevalence of overweight in a rural adult population of Bangladesh.

This study was done in 1998 in a village of Savar sub-district, about 20 km northwest of Dhaka city. The villagers are mostly dependent on agriculture with a supplementation of income from small business or paid jobs in nearby small factories. All adults aged 20-69 years (n=913) were considered for the study. After exclusion of 27 pregnant women, 896 people remained eligible. Of them, 669 (75%) participated in this study. Height (to the nearest mm by a portable stadiometer) and weight (to the nearest 0.2 kg by digital weighing-scale) were measured with light casual clothing, without shoes by two trained health assistants. BMI was calculated as weight in kg divided by the square of height in metres. Then we defined overweight (≥25.0) and obesity (BMI ≥30.0) according to the WHO recommendations (1). The proportion of overweight people was standardized to the age structure of the new WHO world population (2) by direct standardization method using the age categories of 20-29, 30-39, 40-49, 50-59, and 60-69 years.

The mean age of men (n=290) and women (379) was 37 and 36 years respectively. Men and women had 4 and 2 years of schooling, on average. The mean BMI was 19.4 and 19.7 in men and women respectively (Table). The overall prevalence of overweight was 7.1%. The data on obesity were not presented separately because there were few such subjects (1%). BMI showed a decreasing trend with age in both the sexes. After adjustment to the new WHO world population, the overall prevalence of overweight decreased to 6.5%.

The BMI levels that we observed were similar to those reported by Ahmed et al. in rural women (18.5 in the poor and 19.1 in the rich) (3) and urban slum men (19.0) (4), and non-pregnant mothers (18.8) (5) but lower than that reported in an urban clinic-based normotensive

Table. Mean body mass index and percent prevalence of overweight (BMI ≥25)

<table>
<thead>
<tr>
<th>Age groups (years)</th>
<th>Men</th>
<th>Women</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>20-29</td>
<td>99</td>
<td>128</td>
<td>227</td>
</tr>
<tr>
<td>30-39</td>
<td>65</td>
<td>117</td>
<td>182</td>
</tr>
<tr>
<td>40-49</td>
<td>68</td>
<td>73</td>
<td>141</td>
</tr>
<tr>
<td>50-59</td>
<td>35</td>
<td>37</td>
<td>72</td>
</tr>
<tr>
<td>60-69</td>
<td>23</td>
<td>24</td>
<td>47</td>
</tr>
<tr>
<td>All</td>
<td>290</td>
<td>379</td>
<td>669</td>
</tr>
</tbody>
</table>

| Standardized prevalence* | 3.5 | 8.9  | 6.5  |

*Standardized to the age distribution of the new WHO world standard 2000-2025

BMI=Body mass index

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control subjects (23.4) (6). However, these studies are lacking in standardized prevalence data. Data accumulated so far indicate that there are some people who are slightly overweight, but there are negligible people with obesity. Although we currently do not need extensive intervention for weight control in the rural population, it warrants immediate surveillance. Data on the urban general population, where the problem of obesity already has become apparent, should be generated because published data are still lacking.

REFERENCES


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