THE ASSOCIATION BETWEEN SOCIOCULTURAL EFFECTS AND BIAS AGAINST OBESITY AMONG CHILDREN

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Introduction:
Western societies show negative attitudes towards obesity. Prejudice related to obesity can be demonstrated already from early childhood. Negative prejudice and discrimination can have a deleterious effect on the mental and somatic health of overweight children. Assessing the type and extent of the stigmatization may be crucial in the development of adequate intervention programs.

Objectives:
The main goal of our research was to examine potential explanatory factors of prejudice against obesity among children.

Methods:

Study design and participants:
Our cross-sectional, questionnaire study involved 370 students (145 boys and 225 girls) between 10-15 years of age (mean of age 12.3 years [SD=1.14], mean of body mass index 19.3 [SD=3.14]). 42% of the respondents lived in the capital city, another 34% in rural cities, and 24% in villages.

Measures:
1. Hungarian version of Shared Activities Questionnaire (Papp et al., 2010): It consists of 24 direct items that assess willingness to engage in specific activities with a target person (Figure 1). There are three subscales (social, academic, recreational) and each one has 8-10 items. Higher scores indicate greater willingness.
2. Visual Analogue Scale (VAS; Latner et al., 2007): Children were asked to answer a question, namely “How do you like the boy/girl in this picture?” about each figure (Figure 1) by drawing a small line across a 100-mm VAS anchored at the left and right by the phrases “not at all” (0) and “very much” (100).
3. Adjective Checklist (Greenleaf et al., 2006): The checklist includes 18 positive adjectives (e.g., happy, friendly, busy) paired with 18 negative adjectives (e.g., unhappy, unfriendly, lazy). Participants were asked to circle a number on a 7-point scale they felt described the target figure (Figure 1). Higher score on this semantic different scale indicates more favourable judgement.
4. Sociocultural Influences Questionnaire (Keery et al., 2004): It is a 43-item scale developed to measure appearance-related socio-cultural influences (i.e. peer, parents, and media). Higher scores reflect higher levels of socio-cultural influences.
5. Internalization scales of Socio-cultural Attitudes Towards Appearance Questionnaire-3 (Thompson et al., 2004): Internalization-General scale (9 items) assess endorsement and acceptance of media messages touting unrealistic ideals for female beauty and the striving toward these ideals. Internalization-Athlete scale (5 items) assess endorsement and acceptance of the relatively new athletic and “toned” body ideal. Higher scores on these scales indicate higher degree of internalization.

Results:
I. The development of obesity-related attitudes
The prejudice against obese subjects is present in both sexes, since both boys and girls preferred the least obese child figures, endorsed weight-related stereotypes (Figure 2), and reported significantly less willingness to engage in social, academic, and recreational activities with obese child compared with normal weight peer (Figure 3).

II. Explanatory variables of attitudes towards obesity
Since several different questionnaires were used for the measurement of attitudes towards obesity principal component analysis (PCA) was used to aggregate these variables into one variable. Higher scores on the principal component referring positive attitudes towards obesity. In the case of obese girl, appearance-related parent influences and gender, while in the case of obese boy, internalization of athletic body ideal and gender showed significant associations with attitudes towards obesity (Table 1).

Table 1: Multiple linear regression analysis of potential explanatory variables of negative attitudes towards obese children

<table>
<thead>
<tr>
<th>Variables</th>
<th>Attitudes towards obese girl (β)</th>
<th>Attitudes towards obese boy (β)</th>
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<tbody>
<tr>
<td>Media influences</td>
<td>0.09</td>
<td>0.10</td>
</tr>
<tr>
<td>Parent influences</td>
<td>-0.16**</td>
<td>-0.09</td>
</tr>
<tr>
<td>Peer influences</td>
<td>0.08</td>
<td>-0.01</td>
</tr>
<tr>
<td>Internalization*</td>
<td>0.02</td>
<td>0.13*</td>
</tr>
<tr>
<td>Gender (1: boys, 2: girls)</td>
<td>0.23**</td>
<td>-0.13*</td>
</tr>
<tr>
<td>Age</td>
<td>0.09</td>
<td>0.10</td>
</tr>
<tr>
<td>Body mass index</td>
<td>0.07</td>
<td>0.08</td>
</tr>
<tr>
<td></td>
<td>10.2%</td>
<td>3.5%</td>
</tr>
</tbody>
</table>

Note: *: Internalization-general for obese girl and internalization-athlete for obese boy. ** p<0.05, *** p<0.001

Conclusion:
• Our study supported that the 10-15-year old population show several negative attitudes and prejudice relating to obesity.
• Gender seems to be an important factor in the development of negative attitudes against obesity (the evaluation of the own gender is more favourable).
• However, the sociocultural influences (media, peers, and parents) relating to the appearance, and the internalization of the sociocultural standards of the appearance meant only a less predictive value as far as the prejudice is concerned.
• Regarding the potentially harmful consequences of the negative prejudices and discrimination on the psychological and somatic health status of obese adolescents, it would be especially important to perform further studies to explore the explaining factors of the obesity related negative attitudes and the prejudice against obesity among children and adolescents.

References: