What is this research about?
This study investigated eating disorder behaviour, body dissatisfaction and symptoms of depression among Canadian adolescents. A *normal* weight in this study was defined as a body mass index (BMI) between the 5th and 85th percentiles, while *overweight* was defined as a BMI between the 85th and 94th percentiles and *obese* was defined as a BMI greater than the 95th percentile.

What did the researchers do?
The researchers collected data from adolescents in grades 7-12 enrolled in a representative sample of 20 middle and senior schools in both rural and urban areas in the Ottawa region of Ontario between 2004 to 2008. In total 1,491 students completed three anonymous paper questionnaires:

1. The *Body Esteem Scale for Adolescents and Adults* (BESAA) questionnaire included 23 statements such as, “I like what I look like in pictures” and “my looks makes boys/girls attracted to me”, and “I am satisfied with my weight.” Students were asked to respond to these statements by choosing preset answers from a 5 point Likert scale ranging from 0 (never) to 4 (always);

2. The *Dutch Eating Behaviour Questionnaire* (DEBQ) which gathers information on adolescents’ eating behaviour included 33 statements such as, “I like what I look like in pictures” and “my looks makes boys/girls attracted to me”, and “I am satisfied with my weight.” Students were asked to respond to these statements by choosing preset answers from a 5 point Likert scale ranging from 0 (never) to 4 (always);
questions such as: “Do you watch what you eat”; “Do you have the desire to eat when you are feeling lonely?”; and “If you see or smell something delicious, do you have the desire to eat it?”. Students were asked to respond to these questions using a 5 point Likert scale ranging from 0 (never) to 4 (very often).

2. Students were also asked to complete the Child Depression Inventory (CDI) questionnaire, which measure symptoms of depression using 27 CDI statements that assess a participant’s negative mood, interpersonal problems, ineffectiveness, anhedonia (the inability to experience pleasure in normally pleasurable acts), and negative self-esteem.

Students completed the survey in-class with an average completion time between 50 to 70 minutes. Students’ height and weight were recorded directly on their questionnaires which were then sealed and placed in a box for confidentiality purposes. Demographic data was also recorded including grade, age, gender, parental level of education, as well as language spoken at home. The researchers used statistical analysis on the survey data and presented their findings.

What did the researchers find?
Overall, the researchers found that 72% of participants were of average weight, 1% were underweight, 27.5% were overweight, and 9.8% were obese;

The researchers also reported the following findings from the three questionnaires:

**Body Esteem Scale for Adolescents (BESAA):**
- Obese youth reported significantly less body satisfaction and weight satisfaction when compared with overweight youth;
- Overweight youth reported significantly less body satisfaction and weight satisfaction when compared with normal weight youth

**The Dutch Eating Behaviour Questionnaire (DEBQ):**
- Obese youth reported higher scores for dietary restraint (tendency to restrict food intake) than overweight youth and overweight youth reported
higher scores than normal weight youth;

**Child Depression Inventory (CDI):**
- Increased weight was negatively associated with students’ anhedonia (ability to experience pleasure), self-esteem, and total score for level of depression;
- Obese youth reported significantly higher scores on both anhedonia and negative self-esteem than overweight and normal weight youth;
- Overweight youth did not differ from normal weight youth on scores of negative self esteem.

How can you use this research?
Teachers and administrators may wish to consult the wider body of literature concerning the impact of obesity and being overweight on adolescents’ eating behaviours, body image and mental health. Educators may also want to use this research:

- as a starting point for staff discussions about the connection between student physical and mental health;
- to increase staff awareness about the connection between weight, depression and negative self esteem, particularly in obese children;
- to encourage increased school-partnerships with community health agencies that can work with staff, students, and parents to encourage healthy eating and nutrition for all students.

**Original article:**
To learn more about this study, we invite you to read the original research article:


**Other references:**
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Keywords: Self esteem; depression; mental health; obesity; overweight; obesity, youth, students.

About this summary
The Ontario Education Research Exchange (OERE) is a project of the Knowledge Network for Applied Education Research, an Ontario network promoting the use of research in education. The OERE’s clear language summaries of academic research aim to support this mandate.

This summary has been adapted from the ResearchSnapshot series developed by York University and ResearchImpact and has been developed according to writing and design principles unique to OERE. For more information about this summary or the OERE network please contact oere.knaer.oise@utoronto.ca.

This summary reflects findings from this study only and is not necessarily representative of the broader body of literature on this subject. Please consult the original document for complete details about this research. In case of any disagreement, the original document should be understood as authoritative.