Associations of Overweight and of Weight Dissatisfaction among Palestinian Adolescents

Findings from the National Study of Palestinian Schoolchildren (HBSC-WBG2004)

Haleama Al Sabbah
Outline

- General introduction
- Objectives
- Methodology
- Results
- General discussion
- Conclusion
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1. Overweight Status

Prevalence of overweight among children and adolescents ages 6-19 years

SOURCE: CDC/NCHS, NHES and NHANES
Body Mass Index (BMI)

BMI = [weight (kg)/ height (m²)]

BMI normally decreases until age 5–6 years, and then increases through adolescence

Weight dissatisfaction is the strongest predictor of disordered eating behaviours. And leads to unhealthy and extreme weight loss behaviours.

Ref: (WHO 2005)
Ref: Strauss RS, Archives of Pediatrics & Adolescent Medicine 1999
Correlates of body weight dissatisfaction

- BMI
- Weight perception of overweight
- Negative body image
- Self-esteem and depression
- Exposure to media and body comparison
- Family factors
- Peer influence
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Objectives

1) To describe the prevalence of overweight and of weight dissatisfaction among adolescents in Palestine.

2) To investigate associations of overweight and of weight dissatisfaction with demographic characteristics, body image, health complaints, risk behaviors and physical (in)activity in adolescents in Palestine.
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This Study is part of the National Study of Palestinian Health Behaviour in School-aged children (HBSC-2004) cross-sectional study.

The Health Behaviour in School Aged Children (HBSC), a World Health Organisation (WHO) cross-national survey, is an international research study on health and health behaviour of adolescents across more than 40 countries.

The aim of the international HBSC study is to understand youth health behaviour and lifestyle.

The 2004 Palestinian HBSC was the first large population-based survey conducted in Palestine. The survey was repeated in 2006.
Instrument

The questionnaire was developed using the World Health Organization (WHO) international HBSC (2001-2002) mandatory questions and optional questions.

The questionnaire contained 6 optional packages:

- **Form A**: contained the optional questions on smoking, violence & injuries, and social inequalities. In addition to all mandatory questions.

- **Form B**: contained the optional questions on physical activity, eating & dieting, and mental & physical health. In addition to all mandatory questions.

The English version of the questionnaire was translated into the native language (Arabic) and piloted within 300 students.
Sampling

The sample was drawn based the international HBSC protocol and the 2003 Palestinian list of schools and classrooms (which included the number of students per classroom)

School children (Girls and Boys) in:

1) Grade 6th (12y)
2) Grade 8th (14y)
3) Grade 10th (16y)
4) Grade 12th (18y)

Data collection was conducted in April and May 2004
Flowchart depicting participation

Palestine
405 Schools

West Bank
N= 9444 (53%)

Gaza Strips
N= 8271 (47%)

Questionnaire
(A=8830, B=8885)
(48% boys and 52% girls)
17715 school students
Key Measures

**Dieting status:** At present are you on a diet or doing something else to lose weight?

Responses:
1. no, my weight is fine
2. no, but I need to lose weight
3. no, I need to put on weight
4. Yes

**Weight Dissatisfaction:**
1) *Satisfied* with weight’ if the response was *weight is fine*
2) *Dissatisfied* with weight’ if the responses indicated ‘yes’ or ‘no, but I need to lose weight’

Those reporting they want to put on weight were excluded

**Overweight status:** calculated by using self-reported weight and height. BMI cut-off points defined by Cole et al., overweight & obese adolescents were classified as ‘overweight’
Measures

- FAS (Family Affluence Scale)
- Parental education
- Body image
- Perception of body weight
- Perception of looks
- Self-reported health
- Life satisfaction
- Somatic and Psychological health complaints
- Feeling lonely
- Risk behaviours (fighting, carrying a weapon in school, been bullied, bulling, smoking, physical activity, physical inactivity)
Binary logistic regression analyses were run to investigate the associations between:

Weight dissatisfaction and other health determinants (body image, health complaints, risk behaviours, PA & TVV controlling for: region, grade, weight status and weight dissatisfaction

Interaction effects between weight status and weight dissatisfaction have been assessed.

The only significant interaction effects found were related to somatic health and feeling lonely among boys and physical activity among girls (P < 0.05); therefore, no separate analyses were run for overweight and nonoverweight adolescents

A level of significance of 0.05 was used and odds ratios (OR) were considered significant if 95% confidence interval (95%CI) did not include 1.0
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Current Dieting Status by Region, Gender and Grade

- **West Bank**
  - Boys: 6th - 6, 8th - 9, 10th - 9
  - Girls: 6th - 6, 8th - 8

- **Gaza Strip**
  - Boys: 6th - 17, 8th - 10, 10th - 9, 12th - 4
  - Girls: 6th - 10, 8th - 7, 10th - 8

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# Overweight %

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<th>Characteristics</th>
<th>Boys</th>
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<td>16.5</td>
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<td>8th Grade</td>
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<td>10th Grade</td>
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<td>FAS 3 (High)</td>
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## Body weight dissatisfaction (%)

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<td>12th Grade</td>
<td>25.5</td>
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<td><strong>Mother’s education:</strong></td>
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<td>Low education</td>
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<td>FAS 2 (Moderate)</td>
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<td><strong>&lt;0.001</strong></td>
<td>35.6</td>
<td><strong>0.049</strong></td>
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</table>
Weight Status and weight dissatisfaction by gender

Boys

Girls

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Body image

Weight Status (OR + 95%CI)

**Boys**
- Body perception: too fat
- Appearance: perception: not attractive

**Girls**
- Body perception: too fat
- Appearance: perception: not attractive

Weight Dissatisfaction (OR + 95%CI)

**Boys**
- Body perception: too fat
- Appearance: perception: not attractive

**Girls**
- Body perception: too fat
- Appearance: perception: not attractive

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Boys OR + 95%CI
Weight dissatisfaction

Health Complaints
- General health: fair or poor
- Som. Health complaints: high
- Psych health complaints: high
- Life satisfaction: low
- Feeling lonely: often

Risk Behaviours
- Fighting last year
- Injured in fight last year
- Been bullied past 2 months
- Bullying others
- Ever smoked
- Smoked nargilah

PA & TVV
- Physical act. >=5d/week
- TV viewing >=4h/day

Girls OR + 95%CI
Weight dissatisfaction

Health Complaints
- General health: fair or poor
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- Life satisfaction: low
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Main findings

- The highest percentage of dieting, boys in grade 6 in Gaza (17%)
- Overweight (16.5%)
- Weight dissatisfaction (32.1%)

2 groups: overweight-satisfied with weight and nonoverweight-dissatisfied with weight
• Many negative correlates of dissatisfaction with weight among as well overweight as non overweight adolescents. These findings are consistent with findings in Europe and US.

• Almost no correlates with overweight. These findings are consistent with findings in Europe and US (e.g. Neumark-Sztainer et al, Obesity Research, 1996; Crow et al, J. Adol Health, 2006).

• More overweight and dissatisfied boys had highly educated mothers. Findings different from most European and US studies.

• More overweight and dissatisfied boys had highly educated mothers. Findings different from most European and US studies.
Limitations and Strength

**Study design:** Cross-sectional design it is not possible to determine a cause-effect relationship (e.g: how environmental changes may predict changes in individual behaviours)

**Measurements:** Self-reported data may be subject to socially desirable answers (e.g: overweight people underreporting their weight). However, the questionnaires of the students are anonymous.

- Self reports of height and weight
- Weight dissatisfaction
- Puberty
Limitations and Strength

The questionnaire was piloted to determine some aspects of validity and reliability of the instrument. The pilot study made clear that data collection was possible.

Sample size: it is a strength of the research to include a large sample of 17,715 adolescents from 405 schools.
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Conclusion And Recommendation

This Study revealed **high prevalences** of: dieting, overweight, weight dissatisfaction

Weight dissatisfaction, **independent** of weight status, is **associated** with body image, health complaints, risk behaviours, and TV viewing

*Raising awareness* to encourage **healthy eating**, dieting, positive body image and healthy physical activity
• Weight dissatisfaction seems to be part of a cluster of adolescent problems

• Interventions on weight loss should be integrated in (mental) health programs for adolescents

• Need to address the societal importance and value attached to thinness
For More information:

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Mobile: 0599841230

Thank you

http://www3.interscience.wiley.com/journal/122382378/abstract


http://www.springerlink.com/content/4x331774w7w04851/fulltext.pdf


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