

Weight status and psychological health among children in Tehran

Adab, Peymane; Mohammadpour-Ahranjani, B.; Abdollahi, M.; Angoorani, P.

DOI:

[10.1017/S0029665111000255](https://doi.org/10.1017/S0029665111000255)

License:

None: All rights reserved

Document Version

Publisher's PDF, also known as Version of record

Citation for published version (Harvard):

Adab, P, Mohammadpour-Ahranjani, B, Abdollahi, M & Angoorani, P 2011, 'Weight status and psychological health among children in Tehran', *The Proceedings of the Nutrition Society*, vol. 70, no. OCE1, pp. E9-E9. <https://doi.org/10.1017/S0029665111000255>

[Link to publication on Research at Birmingham portal](#)

Publisher Rights Statement:

© Cambridge University Press

Eligibility for repository checked July 2014

General rights

Unless a licence is specified above, all rights (including copyright and moral rights) in this document are retained by the authors and/or the copyright holders. The express permission of the copyright holder must be obtained for any use of this material other than for purposes permitted by law.

- Users may freely distribute the URL that is used to identify this publication.
- Users may download and/or print one copy of the publication from the University of Birmingham research portal for the purpose of private study or non-commercial research.
- User may use extracts from the document in line with the concept of 'fair dealing' under the Copyright, Designs and Patents Act 1988 (?)
- Users may not further distribute the material nor use it for the purposes of commercial gain.

Where a licence is displayed above, please note the terms and conditions of the licence govern your use of this document.

When citing, please reference the published version.

Take down policy

While the University of Birmingham exercises care and attention in making items available there are rare occasions when an item has been uploaded in error or has been deemed to be commercially or otherwise sensitive.

If you believe that this is the case for this document, please contact UBIRA@lists.bham.ac.uk providing details and we will remove access to the work immediately and investigate.

Weight status and psychological health among children in Tehran

B. Mohammadpour-Ahramjani¹, M. Abdollahi¹, P. Angoorani¹ and P. Adab²

¹National Nutrition and Food Technology Research Institute, Shaheed Beheshti University of Medical Sciences, Iran and

²Unit of Public Health and Biostatistics, School of Health and Population Sciences, College of Medical and Dental Sciences, The University of Birmingham, B15 2TT, UK

Childhood obesity is a growing health problem in Iran⁽¹⁾; however, few studies have attempted to identify the wider health effects of obesity in young children⁽²⁾. Obesity in children is likely to be associated with psychological consequences including diminished quality of life, decreased self-esteem, and being subjected to teasing and discrimination^(3,4). The aim of this study is to examine the relationship between weight status and psychological health of school-aged children in Tehran, Iran.

Height and weight of a total of 319 children (153 boys, 7.5±0.6 years old) selected from three different socio-economic regions in Tehran were measured. Overweight was defined as BMI Z-Score > +1 SD (WHO data)⁽⁵⁾. Parents' educational level was recorded and classified into four groups. Mother's working status (working, housewife) was reported. Three questionnaires including Self-description (Marsh), perceived physical competence (Harter) and the Paediatric Quality of Life (PedsQL) – Persian version – were used to evaluate children's psychological well-being. The PedsQL consists of four domains including physical, emotional, social and educational dimensions. Both total (all four domains) and a psychological score (summary score of the last three domains) were calculated.

Overall 28.2% (95% CI 23.3–33.1) of children were classified as overweight. There was a wide range in psychological score measures, which were generally higher (better psychological health) in boys compared with girls. The psychological measures did not differ significantly by weight status, and were not related to parental educational level. The children from the higher socio-economic residential area achieved lower scores for all questionnaires (Table). The difference for PedsQL (total and psychological) remained significant after adjustment for age, sex, mother's working status and weight status (OR 0.2, *P*<0.001).

	Affluent		Middle		Deprived		Total	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Marsh	100.6*	11.3	104.5*	9.5	102.0	11.3	102.5	10.8
Harter	19.2	3.0	19.8	3.3	19.9	3.2	19.7	3.2
PedsQL	74.4**	12.0	77.8 [†]	13.3	81.3** [†]	12.2	78.0	12.8
PedsQL (psychological)	73.1**	14.7	76.3 ^{††}	15.7	81.1** ^{††}	14.1	77.0	15.2

P* = 0.04, *P*<0.001, [†]*P* = 0.09, ^{††}*P* = 0.05.

In comparison with the other residential areas, the more deprived area was very traditional with few immigrants. The findings may suggest that living a more traditional lifestyle may provide children with higher level of emotional, educational and psychological confidence. On the other hand, it might suggest that children from affluent areas are more susceptible to the consequences of modernisation, which needs further investigation.

1. Mohammadpour-Ahramjani B, Rashidi A, Karandish M *et al.* (2006) Magnitude and possible contributors of childhood obesity in Iran: Implications for action. In *Global Dimensions of Childhood Obesity*, pp. 101–130 [R Flamenbaum, editor]. NOVA.
2. Dorsoty AR, Siassi F & Reilly JJ (2003) Obesity in Iranian children. *Arch Dis Child* **87**, 388–391.
3. Schwimmer JB, Burwinkle TM & Varni JW (2003) Health-related quality of life of severely obese children and adolescents. *JAMA* **28**, 1813–1819.
4. Must A & Strauss RS (1999) Risks and consequences of childhood and adolescent obesity. *Int J Obes Relat Metab Disord* **23**, Suppl. 2, S2–S11.
5. World Health Organization (2009) Child growth standards. The WHO Multicentre Growth Reference Study (MGRS). <http://www.who.int/childgrowth/mgrs/en>