

# Body weight concern among female university students in five Arab countries – a preliminary cross-cultural study

Abdulrahman Musaiger<sup>1</sup>

<sup>1</sup> Arab Center for Nutrition, Manama, Bahrain

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## Abstract

**Objective.** The aim of this study was to explore some body weight concerns among females at university in five Arab countries.

**Methods.** The sample comprised 1,134 females aged 17–32 from universities in five Arab countries: Bahrain, Egypt, Jordan, Oman and Syria. A pretested questionnaire was used to determine the aspects of body weight concern.

**Results.** Approximately 32% – 39% of females were dissatisfied with their weight, 17% – 31% wanted their body shape to be similar to Western fashion models, and 5% – 16% believed that men preferred plump women. Of the females, 22–37% had dieted to lose weight during the six months prior to the study, and 8–15% performed exercises to improve body shape most of the time. The differences in body weight concerns were statistically significant between countries.

**Conclusions.** Body weight concern is relatively highly prevalent among young Arab women; however the prevalence varied between countries, mainly due to differences in socio-cultural background between countries.

## Key words

Arab, body perception, dieting, slimming, physical activity, university students

## INTRODUCTION

Obesity has become a problem of concern worldwide. However, the prevalence of overweight and obesity in the Middle East has been estimated to be the second in the world, after North America [1]. It is well documented that obesity is highly associated with eating disorders, which include disturbed eating attitudes, body weight concern, dieting, binge eating, anorexia nervosa and bulimia [2]. Studies in Western countries indicate that the high prevalence of obesity, especially among women, is associated with body weight concern, such as body dissatisfaction, dieting and exercising to lose weight [3, 4, 5].

Arab countries, like many developing regions, have experienced marked socio-cultural and economic changes during the past four decades. This has led to a wide adoption of western lifestyles, including western norms of body shape and weight control. These changes, in addition to globalization, have altered the attitudes of young Arab people towards western values, such as thinness is a sign of beauty and health [6]. Therefore, the previously held belief that Arab cultures prefer plumpness, especially among women, is inaccurate [7, 8, 9]. Studies in some Arab countries have demonstrated that there is a high prevalence of body dissatisfaction among young girls [10, 11, 12].

Several social, psychological and cultural factors are associated with body weight concerns. The influence of parents and peers, exposure to mass media, obesity and pressure to be thin have been shown to be risk factors for increased body dissatisfaction [13, 14]. Studies on body weight concern in the Arab world are very limited. In Kuwait, it was

reported that body weight concern among university women was significantly associated with obesity [15]. The aim of this paper was to provide additional information on body weight concern among university females in five Arab countries.

## MATERIALS AND METHOD

Females at university in five Arab countries (Bahrain, Egypt, Jordan, Oman and Syria), were the target groups for this study. To collect the data for this study, the researcher contacted the undergraduate students involved in one of nutrition courses provided by Arab Center for Nutrition. The students who agreed to volunteer to participate were from these five countries. There are two types of universities in these Arab countries – private and State. This study focused on students enrolled in the State universities, where the students who collected the data were also enrolled. The State universities are open for all locals with either very minimum fees or no fees at all. However, these universities only accept students with a certain grade; therefore, those with grades below the acceptable level usually go to the private universities which accept the lower grades. This may indicate that the State universities have students from all the socio-economic levels.

One State university was selected from each country, namely Bahrain, Ain-shames, Hashimate, Qaboos and Aleppo, respectively. The study was ethically approved by the Nutrition Studies Unit at the Centre for Studies and Research in Bahrain. The age of the participants ranged from 17–32 years old. The total sample was 1,134 females (254, 210, 220, 249 and 201, respectively, from these universities). The participants were selected at convenience and interviewed by nutrition students, during break times, between classes and during lunch breaks. The study was carried out during 2008.

Address for correspondence: Abdulrahman Musaiger, Arab Center for Nutrition, P.O.Box 26923, Manama, Bahrain  
E-mail: amusaiger@gmail.com

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The questionnaire used in this study was modified from previously validated questions used among young women [16]. The final draft of the questionnaire was then translated into Arabic. Two types of questions were used: direct – with a response of yes or no; and frequency questions – which have options to answer one of the following response: most of time, sometimes or never. The direct questions were used for measuring body weight satisfaction, preferred body shape and dieting during the past 6 months. Frequency questions were used to measure exercise and food consumed. The last question regarding body shape preference by men was measured by asking the respondents to select one of several body shapes: thin, slim, plump, or do not know. The Arabic version of the questionnaire was preliminary tested on 20 female students from the University of Bahrain to examine the ability of the girls to understand and interpret clearly the Arabic questions. As a result of the preliminary testing, slight modifications were made to the phrasing of the questions. To assess the reliability of the Arabic version of the questionnaire, it was applied to 254 female university students in Bahrain. The inter-item reliability for questions was assessed using Cronbach's  $\alpha$  coefficient. The findings revealed that the value of Cronbach's  $\alpha$  coefficient was 0.790 for questions related to body weight concern, which indicates a moderate interval reliability.

## RESULTS

The body weight concerns as perceived by females at university in the five Arab countries studied are presented in Table 1. Approximately one-third of the women were dissatisfied with their current weight (32% – 39%). There was a significant variation between countries with regard to preference to have a body shape similar to Western fashion models ( $P < 0.0062$ ). The highest preference was observed among Egyptian women (31%), and the lowest among Omani women (17%). Almost one-third of the participants had dieted to lose weight during the six months prior to the survey, with significant differences between countries ( $P < 0.000$ ). A very low percentage of females undertook exercise regularly to lose weight (ranging from 12% to 18%) ( $P < 0.8644$ ), or to improve body shape (ranging from 8% to 22%) ( $P < 0.000$ ). Approximately 19% to 30% of the participants regularly took care of the quantity and type of food eaten. Except Omani women (58%), more than 70% of the participants believed that the men in their countries preferred slim women, and approximately 5% to 16% believed that the men preferred plump women ( $P < 0.000$ ).

## DISCUSSION

The findings of this study revealed that approximately one third of the participants at the universities in the five Arab countries were dissatisfied with their body weight and dieted to lose weight. However, undertaking regular physical activity either to lose weight or to improve body shape was very low. It was found that university women perceived that the men in their countries would prefer a slim body shape.

The prevalence of weight dissatisfaction among females at university in the current study (32% to 39%) is close to that found by Al-Sabbah et al. [17] among Palestinian females

**Table 1.** Body weight and shape concerns as perceived by university females in 5 Arab countries

Body weight concern	Bahrain (N=254)	Egypt (N=210)	Jordan (N=220)	Oman (N=249)	Syria (N=201)	P-value
	(%)	(%)	(%)	(%)	(%)	
<i>Satisfied with current body weight:</i>						
Yes	65	61	68	62	61	0.0384
No	35	39	32	38	39	
<i>Preferred same body shape as western models:</i>						
Yes	21	31	20	17	22	0.0062
No	79	69	80	83	78	
<i>Dieted to lose weight during past 6 months:</i>						
Yes	37	37	36	22	35	0.0000
No	63	63	64	78	65	
<i>Performing exercise to lose Weight:</i>						
Most of the time	12	15	14	15	18	
Sometimes	38	36	42	36	46	0.8664
Never	50	49	44	49	36	
<i>Performing exercise to improve body shape:</i>						
Most of the time	15	14	17	8	22	0.0000
Sometimes	34	36	40	23	37	
Never	51	50	43	69	41	
<i>Taking care of quantity and types of food eaten:</i>						
Most of the time	19	22	28	23	30	0.0584
Sometimes	46	42	45	40	37	
Never	35	36	27	37	33	
<i>Women's body shape preferred by men:</i>						
Thin women	2	3	3	2	3	0.0000
Slim women	74	71	72	58	73	
Plump women	13	5	10	16	5	
Do not know	11	21	15	24	19	

aged 12–18 (33.9%). The finding that one-third of females in this study dieted to lose weight are consistent with those reported by Connor-Greene [18], in which nearly one-third of the college women used several dieting methods. It was found that those who dieted were more likely to develop eating disorders than those who did not diet. Regular dieting and body dissatisfaction are both risk factors for eating disorders [19].

There are several socio-cultural factors associated with body weight concern, such as nutrition transition, economic status, mass media, globalization, westernization, influence of parents and peer pressure [20]. Some Arab countries, such as Bahrain and Oman, experienced the nutrition transition earlier than other Arab countries, which has resulted in a great change in socio-economic status and a marked alteration in the way of life. This may partly explain the variation in body weight concern between countries.

One of the cultural factors that may be associated with body weight concern among university females in most Arab countries is the transition from secondary school, where there is gender segregation, to university with mixed genders. This could put pressure on Arab university students, particularly women, to be more concerned with their weight and body shape in the presence of the opposite gender. Nichols et al.

[21] reported that such a transition – from secondary school to university – provides an environment which is likely to foster the development of concern regarding body image perception, eating disorders and unhealthy behaviour.

The high prevalence of overweight and obesity is another important factor which contributes to body weight concern. It has been shown that obese people are at greater risk of body dissatisfaction [22]. A review study on obesity in the Eastern Mediterranean region indicated that during the past two decades overweight and obesity have become highly prevalent among adolescent and adult Arabs. Therefore, more and more people, particularly women, try to lose weight through dieting and engaging in physical activity [23]. A study of female university students in Kuwait showed that 81% of obese females were dissatisfied with their current weight, compared with 30% of non-obese females [15].

In the era of globalization, the influence of the westernized media which promote a culture of slimness, especially among girls and young women, should be considered, when studying body weight concern. The western standard of beauty has contributed to the preoccupation with thinness and body image dissatisfaction in the Arab communities [24]. Girls experienced a higher level of perceived pressure from the media to lose weight than boys [25]. It seems that Arab women are caught between the influence of Western culture with preference of a thinner body shape and traditional norms with certain preferences for plumpness. In Egypt, it was found that women were dissatisfied with their body weight because of the influence of fashion as shown on television and in fashion magazines [26]. In Jordan, Madanat et al. [24] reported that, due to Western media and advertising, thinness has become more desirable among women.

The high prevalence of women who did not practice physical activity could be attributed to socio-cultural factors. In general, women in most Arab states face more barriers to the practice of physical activity than men, who have greater freedom and more places to practice physical activity and other recreational activities than women. Furthermore, many women in the Arab region cannot practice exercise outdoors in sports clothing because, for religious and safety reasons, their families do not allow them to practice exercise outdoors [27]. However, this attitude varies between countries, depending on how deeply the religious and cultural attitudes are established in the families. For example, families in Bahrain and Oman are stricter in this matter than those in other countries. In Bahrain, for example, it was reported that 67% of women believed that the lack of opportunities for women to take part in physical activity is due to gender discrimination, as most exercise and sports facilities are provided for men. Approximately 24% of these women perceived that the negative attitudes of the community and family members towards women who practice exercise prevent them from exercising [28].

Nevertheless, due to the lack of information on the factors associated with weight concerns in Arab countries, it is difficult to provide a sufficient interpretation of the role of socio-cultural factors in body weight concern.

**Limitations.** Some limitations in this study should be mentioned. 1) The study included only one university from each country, which means that they are not representative for university women in these countries. 2) Obesity was not measured among the sample studied; therefore, the

interpretation of body weight concern was incomplete. There is good evidence that obesity has a significant association with body concern behaviours [15]. 3) The questionnaire needs further validation and possibly the inclusion of more questions to provide a more reliable picture of body weight concern in Arab regions. However, the presented study provides for the first time valuable data on body weight and shape concerns in several Arab cultures.

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