



Body Size Preferences among Kuwaiti Men and Women Socio-cultural Study*

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Abstract

Objectives: The aim of this study is to identify the effect of socio-cultural changes concerning body size preferences among Kuwaiti men and women from a medical anthropological perspective.

Method: A total of 1,229 participants (645 males & 584 females) were selected by using nonrandom on-purpose sampling. The questionnaire included socio-demographic questions and body type Silhouette with its nine body shapes. The study depended on the following statistical means: frequencies and percentages (Descriptive statistic), relation-factor test to measure differences among variables, t-test to measure the relation between the variables, ANOVA test to measure the relationship and differences between averages of socio-demographic variables of the study sample and the preferable body type for marriage.

Results: The data shows a significant difference was found among men's age categories, education levels, economic status, BMI ($P < 0.05$) religious sect, and ethnic root ($P < 0.001$). And significant differences were found between preferred body size and women's educa-

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tion levels ($P < 0.05$), marital status, BMI, ethnic root, and religious sect ($P < 0.001$).

Conclusion: Individuals' marriage preferences vary across cultures due to sociological, economical, and cultural factors.

Keywords: Body size, Kuwaiti Men and Women, Medical Anthropology, Mating, Culture.

Introduction

The influence of modernization and Western cultures on the Arabian Gulf countries has resulted in changes in marriage patterns. In the past, marriage in the Arabian Gulf culture was regarded as being not between two individuals, but two families that were united socially and economically. The marriage union used to be arranged by the families with social, economical, and political motivations. Body morphology was an important characteristic in determining the mating match in the traditional Arabian Gulf society (Abdullah, 1995). Heavy body mass among men and women was preferred, because being overweight reflected wealth and a healthy body that is able to conceive and reproduce healthy offspring (Feinberg et al., 2008; Sorokowski et al., 2014). Many local positive terms were used in describing heavy and obese women, such as “mrabrubah” (chubby) or “mtabtobah” (overweight). Thin and slim women, on the other hand, were described in negative terms that implied body weakness and malnutrition, such as “Al Aslah” (skinny) and “Al Msahotah” (very skinny).

The previous cultural values of heavier body mass index (BMI) are in accordance with the study that has been performed by Puts (2010) which states that the woman's body mass has a significant effect on her fertility and conception. Women's reproductive health deterioration can be attributed to hormonal imbalances that is caused by their low-fat mass; as a result, healthy levels of body fat for women is 21-33% (Gallagher et al., 2000). Women need a greater percentage of body fat that is sufficient for ovulation, fertility, gestation, and lactation (Pasquali, 2006). Likewise, men with high levels of body fat experienced reduced fertility. As a result, the healthiest and most

attractive men are those with 8-21% levels of body fat and are an indicator for identifying fertile mates (Gallagher et al., 2000).

Miller and Pumariega (2001) reviewed research that has been conducted to assess that the cultural variations in perceptions of health and physical attractiveness is purely from an anthropological perspective throughout the Middle East, Asia, Africa, Europe, and Australia. The society's socioeconomic circumstances played a significant role in how people perceived body size as an indicator for health and well-being. For example, body size is often identified in Malaysia, Egypt, and Samoa as a sign of health, economic achievement, and sexual capability (Swami et al. 2006). The researcher explains the cultural favored big body size in the previously mentioned areas are those in which food supplies were unstable, thus poor people preferred a big body size for mating because only rich people could afford to buy food and gain weight. Also, Nelson, Morrison (2005), Swami and Tovée (2006) performed laboratory studies in the U.S. and the U.K illustrating that undergraduate men who are either poor or hungry tend to choose heavier women than do rich or satisfied men. Some studies have been conducted in the Arab countries and most specifically in the Gulf Arab countries investigating the effects of socio-cultural factors on body size preferences in choosing a mate for life (Al-Isa, 1997; Musaiger et al., 2000). An association between ideal body size preferences and social factors among Arab men and women living in Qatar was studied by Musaiger et al. (2004), who investigated whether the perception of body size preferences was determined by being overweight or obese as indicators of health and attractiveness.

Morphological traits and mating preferences among humans have been studied from demographic, anthropological, psychological, and sociological perspectives (Fan et al., 2004; Guegan et al., 2000; Nettle, 2002; Pawlowski et al., 2000; Rilling et al., 2009; Silventoinen et al., 2003; Todd et al., 2007; Toselli et al., 2016). The frequency of alleles in a population's gene pool can determine the distribution of good or bad genes in the population, which in turn affects the population size and

sex-ratios (Courtiol et al., 2010). Body size such as body mass index, stature, and body mass were used as important characteristics that determined mate selection between men and women in several empirical studies (Bulik et al., 2001; Courtiol et al., 2010; Dixson et al., 2010; Fan et al., 2004). From an anthropological perspective, mating is key for the continuity of the human species. There are many factors that determine the pairing process, such as competition between males, sexual attractiveness, and environmental effects. The Sorokowski et al., (2014) study among Tsimane' men of the Bolivian Amazon reveals that with food shortage concerns and problems to get food, women who have heavier body mass were more preferred by men. Also, the study revealed that age and living in a village away from town and mass media were other significant socioeconomic factors that influenced men's perception of an ideal woman's body size.

Several cross-cultural research studies have been conducted to study the association between mating preference and body morphology among men and women. They include stature (Courtiol et al., 2010; Pawlowski, 2003; and Salska et al., 2008), body mass index (Bulik et al., 2001; Courtiol et al., 2010; Fan et al., 2004; 2005), sexual dimorphic physical characteristics among men {somatotypes and trunk hair} and women {waist-hip ratio and skin color} (Dixson et al., 2007a; 2007 b; 2010), and body morphology, such as BMI and WHR (Prokop & Fedor, 2013). In addition to physical attractiveness as a measurement for pairing selection and mating duration, a trait such as kindness was also tested (Jonason et al., 2012). A relationship between actual body weight and preferred body size and weight was detected among Jordanian women (Madanat et al., 2011) and between two different groups (Turkish and Moroccans) to assess the influence of cultural factors on physical attraction preferences between men and women (Nicolaou et al., 2008). Moreover, a comparative study between Greece and Britain's population was conducted by Swami et al., (2006) to detect cultural variations about women's physical attractiveness that was measured by body shape (WHR) and BMI. The study findings illustrated that the primary determinant of a

woman's physical attractiveness was BMI for both populations, and WHR was a significant predictor for the woman's physical attractiveness for the Greek population only.

Cross-cultural studies identified body-size preferences as an important factor for both overweight and the obese among Dutch men and women (Blokstra et al., 1999), among African American men and women (Becker et al., 1999), and among Latinos/Latinas and Africans (Cassidy, 1991). Men's preferences for women's morphological and physical attractiveness also have been examined cross-culturally. For example, female waist-to-hip ratio (WHR) (Rozmus-Wrzesinska & Pawlowski, 2005), female WHR, breast size, and facial appearance (Dixson et al., 2011), female WHR, breast size, ethnicity (Swami et al., 2007; 2009), women's voices and faces (Fraccaro et al., 2010; O'Connor et al., 2013), women's faces (Marcinkowska et al., 2014), men's socioeconomic status, and women's preferred body size (Swami et al., 2007) were all indicators of attractiveness. Men's attraction to women was based on their body shape and their breast size in relation to seasonality, which also has been studied by Pawlowski and Sorokowski (2008). Their study revealed that the winter season had the highest score (and summertime had the lowest score) of the attractiveness of women's breast size and body shape.

On the other hand, several cross-cultural studies explored cultural influences on mating preferences based on the males' physical attractiveness, such as male WHR, waist-to-chest ratio (WCR), and BMI among British and Greek populations (Swami et al., 2007) and among British and Malaysian populations (Swami & Tovee, 2005). Geometric morphometrics of male facial appearance or men's physical strength and health were indicators that have been examined as an attractive characteristic for mating preferences (Boothroyd et al., 2013; DeBruine et al., 2010; Fink et al., 2007; Windhager et al., 2011). The Weeden & Sabini (2005) study aimed to detect the relationship between physical attractiveness and health in western societies based on symmetry, body shape and size, and the sex hormonal indicators.

The findings showed that the main predictors of females' health and attractiveness were body size and WHR, whereas there was no relationship between male attractiveness and their health.

Socio-cultural Theory of Body Image

Individuals' mating preferences vary across cultures due to sociological, economical, and cultural factors. Tradition, religion, and socioeconomic status all can be seen as having a vital impact on mating choices. Vygotsky (2012) developed a socio-cultural theory to explain how parents, caregivers, and peers influence individuals' cultural beliefs and attitudes < <https://www.verywell.com/attitudes-how-they-form-change-shape-behavior-2795897> > through learning. According to the theory, every culture offers instruments of intellectual adaptation to their individuals that allowed them to utilize their basic intellectual abilities in a condition that is adaptive to their culture. The Socio-cultural theory of body image illustrated how people's perception of an ideal body size is affected by their cultural concept of a healthy body figure, which revealed that there is an association between an ideal body size and fecundity or ability to conceive healthy offspring, which is beauty for women, and manhood and power for men. Thus, based on their social norms and values that they hold toward body image, people seek to achieve the socially acceptable body size (Nelson and Morrison, 2005; Swami & Tovée, 2006).

Aims of the Study

The current study aims to assess the influences of socio-cultural changes concerning body size preferences among Kuwaiti men and women due to the impact of modernization and the adaptation of western culture that exists in the Kuwaiti society after the oil exploration. In the past, the main principles for arranging the marriage in the Kuwaiti society were social, economical, political factors, and physical characteristics. In the traditional Arabian Gulf society, because of the environmentally harsh condition of food scarcity and complete dependency on seasonal food, the body size was one of the important characteristics in determining the mating selection. Heavy

body mass among men and women was the preferred characteristic in the traditional society and represented wealth and a healthy body that is capable to conceive and reproduce healthy offspring (Al-Kandari & Al-Zuabi, 2016, p. 137).

Significance of the Study

Individuals' mating preferences vary across cultures due to tradition, religion, and socioeconomic status, all of which play a vital role in mating choices. Few Arab researchers have examined mating choices from an anthropological perspective. The current study uses a combination of socio-cultural and somatic variables to study the relationship between Kuwaiti men and women's socio-cultural background and their body size preferences from an anthropological perspective. This study identifies the effect of socio-cultural change concerning body size preferences among Kuwaiti men and women. It shows how socio-cultural variables play a determinant role in the body preferences for a marriage mate in the Kuwaiti society. Findings of the current study identified the preferred body size for mating among Kuwaiti men and women and its health implications. For example, if the preferred body size for choosing a partner for marriage is slim, it might lead to some individuals experiencing eating disorders, such as bulimia or anorexia in order to lose weight to achieve their ideal body size. Or it might cause some individuals to undergo plastic surgery to alter their bodies or do bariatric surgery to lose their weight. Also, the findings detected the effects of cultural preferences for ideal body size on the individuals' perception about their own bodies and the bodies that they desire in a mate and how their perceptions of obesity or a slim body affect the marriage rate.

Hypothesis and Research Questions

The study hypothesized that body size preferences for men and women is affected by several social factors, such as age, educational level, marital status, economic status, BMI, religious affiliation, and ethnic origins.

The study tries to answer the following question: is there any

association between socio-cultural factors (age, educational level, marital status, economic status, BMI, religious affiliation, and ethnic origins) with ideal body size for females, as perceived by Kuwaiti men; is there any association between socio-cultural factors (age, educational level, marital status, economic status, BMI, religious affiliation, and ethnic origins) with the ideal body size for men, as perceived by Kuwaiti women; and is there any significant difference between men and women in body size preference for each of the socio-cultural factors (age, educational level, marital status, economic status, BMI, religious affiliation, and ethnic origins)?

Methodology

Study Design

The current study is a descriptive cross-sectional comparative study that seeks to detect whether there are differences between Kuwaiti participants' preference of ideal body size and their socio-cultural factors such as age, educational level, marital status, economic status, BMI, religious affiliation, and ethnic origins.

Population Target. The target sample of this study was Kuwaiti citizens. Non-Kuwaiti participants were excluded because of the study's purpose of measuring the effect of Kuwaiti socio-cultural factors on body size preferences among a sample of the Kuwaiti population. Total of (1,229) participants (645 males and 584 females) were selected by using a nonrandom convenient sampling. To obtain accurate and valid results and responses from the participants to the study tools, subjects were asked to volunteer to this study. The participants consisted of Kuwaitis from both genders who voluntarily answered the self-administrated questionnaire. They have been selected wherever they found in public places and areas in Kuwait. This sample size can provide a good indication of the influences of socio-cultural changes concerning body size preferences among Kuwaiti men and women due to the impact of modernization although generalization comes with a caution. The participants' ages ranged from 18 to 72 years old ($m = 33.88$; $SD = 12.46$). Participants came from different educational, socioeconomic, and social backgrounds.

Married (n = 648) and unmarried (n = 473) participants were included for comparison.

Study Area. To achieve a sample that can include all divisions of the Kuwaiti population as much as possible, the self-administrative questionnaire was distributed to participants who live in six different governorates in Kuwait: the capital (18.5%), Hawali (17.3%), Farwaniya (19.5%), Ahmedi (13.9%), Jahra (17.6%), and Mubarak Al-Kabeer (11.0%). This distribution ensured representation of both Sunni and Shiite Muslims, and urban and Bedouin participants, which are social variables for comparison in this study. Even though efforts were made to secure a representative sample, generalization of the study's results in the entire Kuwaiti population should be made with caution.

Duration of Study. The data collection process took about five months, from January to June 2014. The questionnaire was distributed by four trained research assistants among Kuwaiti citizens. After explaining the aim of the study, the research assistants asked participants to participate voluntarily and assured them that their identities and information would be kept anonymous and confidential.

Data Collection. The questionnaire was the major tool of data collection this study. It included some demographic questions. The respondents were asked directly about date of birth, governorate, region, education. Age has been grouped in four categories: 25+, 26-40, 41-55, and 56+ years. The categorization of age has been chosen to assess the level of exposure to western influences that may impact body shape preferences. Education was ordered into ten categories from "read and write" and below = 1 to Ph.D. = 10. Education was grouped by three categories: Low (from read and write to high school), Middle (university level), and High (postgraduate). A one-item single self-rating economic scale was used. For this self-scale, the lowest score (1) was feeling poor and the highest score (10) was feeling excellent. Economic status was grouped by three categories: Low, Middle, and High by using cut-off points (1-3, 4-7, and 8-10, respectively). One-item single self-rating economic scale has been used in many studies and has shown validity. Also, reversing and transforming to three categories

have been done and used in other studies (e.g. Al-Qadi et al., 2016; Reyes Fernandez et al., 2016). The respondents were asked about their age, governorate, region, and social status. To distinguish between two major social groups, they were asked directly about their religious sect, Sunni or Shiite. Also, they were asked directly about their origin, Bedouin or non-Bedouin. In addition, the participants' weight and height were taken.

Anthropometric Measurements

Height and weight have been measured by using regular measurement procedures advised by the researchers. Respondents were measured by having him/her stand erect with his/her back against a wall and marking the point of the top of his/her head. A stadiometer tape measure was used for the height measurement. A portable digital scale was used to measure the respondent's weight in kilograms. Results were recorded to the nearest 100 grams. Respondents were measured without their shoes and outer garments if they wore extra layers. BMI was calculated, kg/m^2 . Four categories were used: Underweight, Normal weight, Overweight, and Obese. Silhouette figural stimuli (Stunkard, 1983) were used to explore cultural differences between Kuwaiti' men and women by comparing differences in their preferred body image (see Figure 1 and Figure 2). Each participant was asked the following questions: Which silhouette would you prefer your husband/wife to have? Participants were asked to choose one of the nine silhouettes in the questionnaire for the body size they preferred for their husband/wife. Silhouettes were given a value of 1 to 9 with one being the smallest value and 9 being the largest value. As can be seen in Figure 1: silhouettes body size 1-9 for male, and Figure 2: silhouettes body size 1-9: for female, participants were asked to select the body size figure without seeing the assigned number. For compression purposes and because there were fewer obese body size, Figures 6 to 9 were comprised to become silhouettes body size 1-6 as it shows in Table 1 and Table 2. Another study that had been conducted in Qatar (Musaiger et al., 2004) served as a model for this study. For more clarification of Silhouettes body size based on individuals' BMI, Figure 3. Display the information.

Statistical Procedures

SPSS (Version 21.0) was used for data analysis. Two statistical techniques were employed for this study: chi square and t-test. Chi-square was used to examine the association between body size preference and social factors. T-test was used to examine the difference between men and women's body size preferences for their spouse.

Results

The data for the social factors associated with ideal body size for women as perceived by Kuwaiti men (Figure 1: silhouettes 1-6 body size for male) are presented in Table 1.

Table 1

Social factors associated with ideal body shape for females, as perceived by Kuwaiti men

<i>Factors</i>	<i>n</i>	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>	<i>6</i>	<i>P value</i>
<i>Age (years)</i>								
<i>25 and below</i>	195	5.1	19.0	35.4	23.6	13.8	3.1	
<i>26-40</i>	237	3.8	18.6	43.5	21.5	8.0	4.6	
<i>41 - 55</i>	145	3.4	31.0	28.3	17.9	10.3	9.0	
<i>56+</i>	58	5.2	36.2	24.1	19.0	8.6	7.0	0.036
<i>Educational level</i>								
<i>Low</i>	190	5.8	27.4	27.4	18.9	11.1	9.5	
<i>Middle</i>	383	3.7	22.2	38.4	21.9	10.2	3.7	
<i>High</i>	52	1.9	17.3	44.2	25.0	11.5	0.0	0.057
<i>Marital status</i>								
<i>Married</i>	381	3.1	23.6	37.0	20.7	8.7	6.8	
<i>unmarried</i>	254	5.5	23.2	33.9	21.3	13.0	3.1	0.802
<i>Economic status</i>								
<i>Low</i>	43	0.0	25.6	34.9	20.9	2.3	16.3	
<i>Middle</i>	435	4.8	21.1	39.3	20.7	9.4	4.6	
<i>High</i>	104	2.9	27.9	29.8	23.1	12.5	3.9	0.073

Cont/ Table 1

Social factors associated with ideal body shape for females, as perceived by Kuwaiti men

<i>Factors</i>	<i>n</i>	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>	<i>6</i>	<i>P value</i>
<i>BMI</i>								
<i>Under weight</i>	21	14.3	19.0	42.9	4.8	9.5	9.5	
<i>Normal weight</i>	229	5.2	27.1	37.1	17.9	8.3	4.4	
<i>Over weight</i>	226	2.7	23.0	38.1	23.5	8.8	4.0	
<i>obese</i>	137	4.4	15.3	31.4	22.6	16.8	9.5	0.016
<i>Sector</i>								
<i>Sunni</i>	248	2.4	32.3	32.3	18.5	10.5	4.03	
<i>Sheii</i>	337	5.3	14.5	38.3	24.3	11.0	6.53	0.000
<i>Root</i>								
<i>Urban</i>	248	2.4	32.3	32.3	18.5	10.5	4.0	
<i>Bedouin</i>	337	5.5	14.5	38.3	24.3	11.4	3.9	0.000

For overall body image preference, the data shows that 35.7% of the men preferred the body size for the women in Figure 3 and 23.1% and 21.1% preferred the body size in Figures 2 and 4, respectively; 10.4% preferred the body size in Figure 5. Only 4.3% and 5.3% preferred those in Figures 1 and 6 and above, respectively. For the age category, a significant difference was found among age categories size ($X^2 = 37.782$, $p = 0.036$). Young males 25 years old and younger (35.4%) and 26-40 years old (43.5%) preferred the body size in Figure 3 more, compared with men at ages 41-55 (28.3%) and 56 and older (24.1%). Older men (56+) preferred the thinner body size depicted in Figure 2, compared with other age categories. Figure 2 was selected by 36.2% of the older men, and 19.0%, 18.6% and 31.0% of the men at ages 25 and younger, 26-40, and 41-55 years, respectively.

Significant differences were found also among different education levels ($X^2 = 25.796$, $p = 0.050$). 44.2% of men with higher education selected and preferred the women's body size depicted in Figure 3,

while 38.4% of men at the middle education level selected this body size. Almost a quarter of the men with low education preferred the body size for women in Figure 2 and 22.2% and 17.3% of men with middle and higher education, respectively, selected the body size in Figure 2.

No significant difference was found between married and unmarried men with respect to selection of the ideal body size for men. It was the same for economic status. Examining the current status of obesity of men, a significant difference was found among underweight, normal weight, overweight, and obese men in their selection of the ideal body type of women ($X^2 = 41.130$, $p = 0.016$). 42.9% of the underweight men selected the women's body size depicted in Figure 3, while 37.1% of normal weight men, 38.1% of overweight men, and 31.4% of obese men selected this body size. Obese and overweight men (22.6% and 23.5% respectively) were more likely to select a heavier body size (Figure 4) for women, compared with men who are normal weight and underweight (4.8% and 17.9%, respectively). Also, obese men appeared to prefer more obese women (Figures 5 and 6+) compared with men in other categories.

For differences among social groups in Kuwait, the data showed significant differences in body size preferences between Sunni and Shiite Muslims and between those with Bedouin- versus urban origins. Muslim Shiite men were more likely to select a heavier body size for women than were Muslim Sunnis. It was the same for people who came from Bedouin origins. The differences were statistically significant ($P < 0.001$) for both. 38.3% of Shiite men selected the body size for women in Figure 3, while 32.3% of Sunni men selected this body size. 24.3%, 11.0% and 6.53% of Shiite Muslim men selected Figures 4, 5 and 6+ respectively, and 18.5%, 10.5% and 4.03% of Sunni Muslim men selected these figures, respectively. It needs to be stated that there is an interaction between sect affiliation and origin. Almost all respondents who come from Bedouin origins are Sunni Muslim. On the other hand, respondents who come from urban origins are either Sunni Muslims or Shiite. It is stated by Al-Meders (1999, p.6) that Shiite Muslim in Kuwait is comprised of 15% to 25% of the Kuwaiti

population. There is no interaction between sect and origin affiliation with variables such as socio-economic.

With regard to social factors associated with ideal body size for men as perceived by Kuwaiti women, the data is presented in Table 2.

Table 2

Social factors associated with ideal body shape for females, as perceived by Kuwaiti women

<i>Factors</i>	<i>N</i>	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>	<i>6</i>	<i>P value</i>
<i>Age (years)</i>								
<i>25 and below</i>	246	1.6	14.2	24.8	33.7	22.8	2.9	
<i>26-40</i>	152	4.6	15.1	27.6	30.3	17.1	5.3	
<i>41-55</i>	135	5.9	12.6	22.2	26.7	23.7	8.9	
<i>56+</i>	21	4.8	9.5	42.9	23.8	14.3	4.8	0.282
<i>Educational level</i>								
<i>Low</i>	108	9.3	11.1	21.3	25.9	22.2	10.2	
<i>Middle</i>	414	2.2	14.0	27.3	32.1	20.3	4.1	
<i>High</i>	31	0.0	19.4	19.4	35.5	22.6	3.2	0.013
<i>Marital status</i>								
<i>Married</i>	267	4.1	14.2	27.0	30.0	18.0	6.7	
<i>Unmarried</i>	292	3.1	13.3	24.6	31.5	23.6	3.8	0.000
<i>Economic status</i>								
<i>Low</i>	91	5.5	14.3	25.3	27.5	18.7	8.8	
<i>Middle</i>	337	3.0	15.4	24.3	31.5	22.0	3.9	
<i>High</i>	92	1.1	9.8	28.3	31.5	21.7	7.6	0.296
<i>BMI</i>								
<i>Under weight</i>	18	0.0	16.7	22.2	38.9	16.7	5.6	
<i>Normal weight</i>	225	1.8	16.0	31.6	31.1	18.2	1.3	
<i>Over weight</i>	161	5.6	11.8	28.6	28.0	20.5	5.6	
<i>Obese</i>	128	5.5	10.2	15.6	32.0	25.8	10.9	0.000

Cont/ Table 2

Social factors associated with ideal body shape for females, as perceived by Kuwaiti women

<i>Factors</i>	<i>N</i>	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>	<i>6</i>	<i>P value</i>
<i>Sector</i>								
<i>Sunni</i>	259	2.7	15.8	29.3	27.4	18.5	6.18	
<i>Sheii</i>	270	4.1	11.5	21.1	34.4	24.1	4.81	0.050
<i>Root</i>								
<i>Urban</i>	259	2.7	15.8	29.3	27.4	18.5	6.16	
<i>Bedouin</i>	270	4.2	11.8	21.1	34.4	24.1	4.8	0.194

For overall body image preference, the data show that 30.7% of the women preferred the body size for men depicted in Figure 4 and 25.6% and 21.1% of the women preferred the images depicted in Figures 3 and 5, respectively; 13.9% preferred the image in Figure 2. Only 4.0% and 3.6% preferred the body size for men in Figure 6 and above and in Figure 1, respectively. No significant differences were found among age categories. For the education factor, significant differences were found among different education levels ($X^2 = 31.241$, $p = 0.013$) of the women in the higher-education level, 35.5% selected and preferred the body size for men in Figure 4, while 32.1% of the women in the middle education level selected this figure. For the body size of men in Figure 6 and above, 10.2% of the women in the lower education level, 4.1% of the women in the middle education level, and 3.2% of women in the higher education level said they preferred this body size. As for the body size for men depicted in Figure 2, 19.4% of women in the higher education level, 14.0% of the women in the middle education level, and 11.1% of women in the lower education level said they preferred this body size in a mate.

There were significant differences between married and unmarried women in their selection of the ideal body size for a man they would like to choose for a mate ($P < 0.001$). Among the married

women, 27.0% selected Figure 3, while 24.6% of the unmarried women selected this figure. Unmarried women were more likely to select the heavier body size for men depicted in Figures 4 (31.5%) and 5 (23.6%) compared with married women (30.0% and 18.0%, respectively). No significant differences were found among the economic status levels of men with respect to the selection of ideal body size for women.

Examining the current status of obesity among women, significant differences were found among underweight, normal weight, overweight, and obese women with regard to their selection of the ideal body image of men they would like for a mate ($X^2 = 56.284$, $p = 0.000$). 25.8% of obese women selected Figure 5, while 20.5%, 18.2% and 16.7% of overweight, normal weight, and underweight women selected this figure, respectively. The results were the same also for Figure 6. The highest percentage of women who selected this figure was among the obese women, at 10.9%. The other percentages were 5.6%, 1.3% and 5.6%, for overweight, normal weight, and underweight women, respectively. 16.7% of the underweight women selected Figure 2, while 16.0% of the normal weight, 11.8% of the overweight and 10.2% of obese women selected the body size depicted in Figure 2.

For differences between different social groups in Kuwait, the data showed significant differences between Sunni and Shiite Muslims in their body size preferences in a mate. Shiite Muslim women were more likely to select a heavier body size depicted in Figures 4 and 5 for men than were Sunni Muslim women. A lower percentage of Shiite Muslim women (21.1%) than Sunni Muslim women (29.3%) selected Figure 3. There were no significant differences between people from urban versus Bedouin origins in their preferences of body size in a mate.

Differences between men and women's body size preferences based on social factors were also examined. Table 3. shows the means and standard deviations of preferences for body size measured using the 9-figure Silhouettes scale for males and females.

Table 3

Means and standard deviation of preference for body shape measured using the 9-figure Silhouettes scale for male and females, according to special factors

Male/Female

<i>Factors</i>	<i>N</i>	<i>Mean</i>	<i>SD</i>	<i>Mean</i>	<i>SD</i>	<i>P value</i>
<i>Age (years)</i>						
<i>25 and below</i>	441	3.33	1.22	3.72	1.15	0.001
<i>26-40</i>	389	3.30	1.27	3.57	1.25	0.042
<i>41-55</i>	280	3.34	1.50	3.84	1.52	0.006
<i>56+</i>	79	3.12	1.36	3.48	1.16	0.292
<i>Educational level</i>						
<i>Low</i>	298	3.38	1.57	3.77	1.55	0.043
<i>Middle</i>	797	3.26	1.18	3.69	1.20	0.000
<i>High</i>	83	3.27	0.95	3.71	1.13	0.061
<i>Marital status</i>						
<i>Married</i>	648	3.33	1.34	3.67	1.33	0.002
<i>unmarried</i>	473	3.29	1.30	3.72	1.17	0.000
<i>Economic status</i>						
<i>Low</i>	134	3.65	1.73	3.68	1.37	0.913
<i>Middle</i>	772	3.26	1.25	3.69	1.28	0.000
<i>High</i>	196	3.27	1.21	3.87	1.16	0.001
<i>BMI</i>						
<i>Under weight</i>	39	3.05	1.46	3.83	1.42	0.099
<i>Normal weight</i>	454	3.14	1.29	3.53	1.09	0.001
<i>Over weight</i>	387	3.29	1.26	3.63	1.24	0.010
<i>obese</i>	265	3.65	1.41	4.05	1.53	0.029
<i>Sector</i>						
<i>Sunni</i>	507	3.18	1.27	3.65	1.29	0.000

Table 3

Means and standard deviation of preference for body shape measured using the 9-figure Silhouettes scale for male and females, according to special factors

Male/Female

<i>Factors</i>	<i>N</i>	<i>Mean</i>	<i>SD</i>	<i>Mean</i>	<i>SD</i>	<i>P value</i>
<i>Sheii</i>	607	3.45	1.34	3.80	1.27	0.001
<i>Root</i>						
<i>Urban</i>	999	3.28	1.27	3.68	1.27	0.000
<i>Bedouin</i>	173	3.49	1.48	3.75	1.31	0.227

Significant differences were found between men and women in most social factors: in age groups (25 years old and younger, 26-40 years old, and 41-55 years old); lower and middle educational level; married and unmarried marital status; middle and high economic status; underweight, normal weight, overweight and obese; Sunni and Shiite Muslim; and urban versus Bedouin origins. No significant differences were found regarding the following social factors: older adults (56+ years old), higher level of education, lower economic class, underweight and people from Bedouin origins. Two-way analysis of variances with sect affiliation and origin applied to avoid type one error; the data showed that there are significant differences in all the tested variables factors.

Regression model was used to determine whether there is an effect of socio-cultural factors (age, educational level, marital status, economic status, BMI, religious affiliation, and ethnic origins) on ideal body size for females, as perceived by Kuwaiti men and on ideal body size for men, as perceived by Kuwaiti women.

Using stepwise regression, results in Table 4. indicate that the order of the independent variables which show that BMI, marital status, the respondents' sect and root exerted an effect on ideal body size for females as perceived by men respectively. On the other hand, the data showed that as they came by order BMI, the respondents' sect and root exerted an effect on ideal body size for males as perceived by

females. These variables were the least powerful predictor on the ideal body size for female and males as perceived by males and females.

Table 4

Regression Coefficient of sociocultural factors on ideal body size for females and males, as perceived by Kuwaiti men and women

Ideal body size for females as perceived by men			
Variables	B	Beta	t. Value
BMI	.041	.182	5.67**
Marital Status	.122	.066	2.02*
Sect	.241	.064	1.96*
Root	.324	.130	3.88**
Adjusted R Square		.041	F = 1.28**
Multiple R		.22	
Ideal body size for males as perceived by females			
Variables	B	Beta	t. Value
BMI	.042	.191	4.44**
Sect	.359	.103	2.30*
Root	.460	.189	4.02**
Adjusted R Square		.050	F = 4.99**
Multiple R		.25	

* $p < 0.05$ ** $p < 0.001$

Discussion

The current study reveals that more than one third of Kuwaiti men and women preferred the mid-range body size for their partner. This finding shows that there is a trend in body preference among Kuwaiti men and women who prefer slim rather than heavier or obese body size for their partner. The current finding is similar to Musaiger et al.'s (2004) findings which reveal that the most culturally acceptable body size among women in Gulf countries is the mid-range body size. The current results show how Gulf countries are affected by Western

culture which favors leaner body size than heavier body size (WHO/EMRO, 1990). The current findings showed that the ideal body size for men preferred by 30.7% of the women was that depicted in Figure 4, which is comparable to women in Bahrain (33.1%) and Egyptian women (30.5%) (Musaiger, 2013). Also, the findings of this study revealed that Figure 3 was the second preferred body size for men that was selected by Kuwaiti women, which is comparable to Omani women (25.7%) who also preferred the thinner body size in men, and unlike Syrian women in Musaiger's (2013) study, in which half of the participants chose Figure 3. This cultural variation in people's preferred body size can be attributed to cross-cultural variation in socioeconomic perspectives in each country, cultural perception of viewing ideal body size, and how each body size applies to exposure to Western concepts of beauty, and to the influence of mass media (Madanat et al., 2011; Ragab, 2012).

The current study shows that there is no association between Kuwaiti women's age categories and their preferences for men's ideal body size. However, this association between age and preferences for a mate's ideal body size was detected among Kuwaiti men. Older Kuwaiti men (56+ years old) preferred a thinner body size in women (Figure 2) than did younger men, which is comparable to Al-Musaiger et al.'s (2004) findings, which showed that older men preferred slimmer women than younger men who preferred the heavier body size in a woman. These cultural alterations can be explained by older men starting to adapt to a healthier lifestyle image. They have become more aware of the negative consequences of obesity and its association with the diagnoses of chronic disease. However, Gittelsohn et al. (1996) found that younger Canadian men chose a leaner body size in women than did older Canadian men (60+ years old) who preferred a heavier female body size. Moreover, the Sorokowski et al., (2014) study revealed that older Tsimane' men of the Bolivian Amazon preferred women who have a higher BMI than leaner women due to the environmental condition of the difficulty of obtaining food sources and the absence of the western values in the village.

The current findings showed that there is an inverse association

between Kuwaiti men and women's education levels and their choice of their partner's ideal body size. Kuwaiti men and women who hold a higher educational degree tend to choose a slimmer body size for their partner, whereas men with a lower educational level tend to choose an obese body size. The current finding is similar to Khashoggi et al. (1994) and Musaiger et al. (2000), who reveal that there is an inverse association between the heavy body size and the educational level in the Arab Gulf countries. Preference for the thinner body size might be due to adopting western values, higher awareness of the ideal of a slim body size, higher effects of the health benefits of a slimmer body, and the influence of mass media. Moreover, the current findings revealed that there were differences between Muslim sub-groups and their preferences of the ideal body size in one's partner. Shiite Muslim men and women were more likely to select a heavier body size than Sunni Muslim men and women. These inter-social differences were also reported by Hallinan (1988), who found that Muslim students at the American University preferred a chubby female body size than did Christian and Jewish students. These differences might be attributed to cultural preferences. For example, an overweight female body may be perceived by some as the perfect body size and each sub-group perceives beauty, health, and fertility based on its values and stereotypes of an ideal body size.

Most Shiite Muslims in Kuwait originally came from Iran. They are culturally different in many aspects of their lifestyle, traditions, and customs. Also, the current study reveals that both Kuwaiti men and women's selection of body size in their partner was associated with their own current body size status. Obese and overweight men and women were more likely to select a heavier body size; and participants whose body size was normal or underweight tended to select slim and mid-range body size in their mates. These body size concordances can be explained by the adoption of similar life styles, such as eating habits, physical activities, perception of beauty, and the level of awareness of chronic disease. The current findings revealed that there were no significant differences among Kuwaiti women who lived in different districts and their preferred body size for men as the one they may

choose for a mate. Our findings contradict the study by Swami and Tovee (2005) who reported a significant association between the districts where the British and Malaysian women lived and the male body size they preferred. Urban women preferred a leaner body size more than rural women who chose a heavier body size.

The current study reveals that there are no significant differences between different districts in Kuwait. No unique cultural differences can be recognized among the six governorates in Kuwait except for Al-Jahra, most of whose population comes from Bedouin origins. In general, Al-Jahra is considered a modern city. The current study also revealed that there is no significant difference between body size preferences and participants' ethnic origins or their economic status. This can be attributed to the assimilation of Kuwaiti ethnic groups due to modernization, education, and the adoption of the Western perspective of what constitutes an ideal and perfect body size. Differences between the two groups are minimized and replaced by other factors, such as participants' education level, age, and social media background.

Similar to the current study, Allison et al (1993) found no ethnic differences in men's preferences for female body size among Black, White, and Hispanic men in New York. However, Swami and Tovee (2007) found socio-cultural factors that affect female body weight and size preferences among Finnish, Sami, and the British male population. Indigenous Sami European males chose larger female body sizes than did the Finnish males, who preferred a more leaner body size. Allison et al (1993) found that Black and Hispanic men preferred heavier women than did White and Asian men.

Our findings show that there is no significant difference between the Kuwaiti men's marital status and their preference for a woman's ideal body size. However, we detected a difference among women's marital status with regard to their preferences for men's ideal body size for a marriage partner. Married women tended to choose the mid-range body size, whereas unmarried women preferred a heavier body size in men. This difference might be due to the unmarried women's

perception of heavier body size in a man symbolizing power, manhood, wealth, and privilege (Thompson, 2001).

Further studies are needed to investigate the desirable body size for mating and its health implications among Kuwaiti men and women. Future studies can look into the effects of cultural preferences for the ideal body size on an individuals' perception about their own bodies and the bodies that they desire in a mate. Future studies can also examine the negative consequences whether individuals were unsatisfied with their own body image; i.e., what choices will they make in a mate's body size if they themselves have an eating disorder such as bulimia or anorexia, or if they have had plastic surgery to alter their bodies. In addition, the knowledge of sub-cultural differences in body size preferences can highlight the health risk consequences of being obese and try to understand if it is important to modify the individuals' perception of being overweight or obese as being an attractive physical trait, whether it is necessary as it relates to health concerns.

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Figure 1

silhouettes body size for male

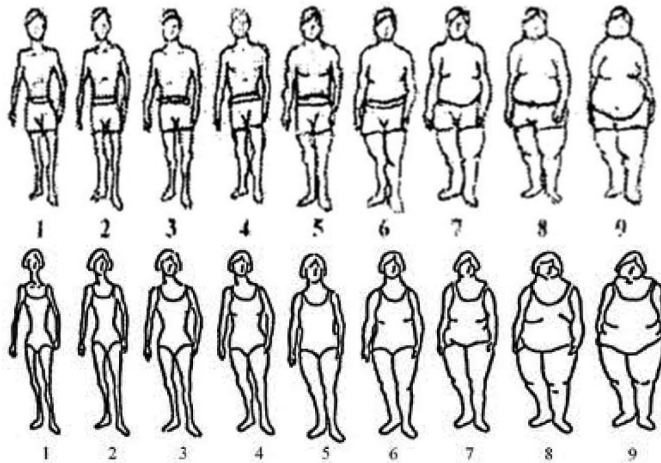


Figure 2

Silhouettes body size for female

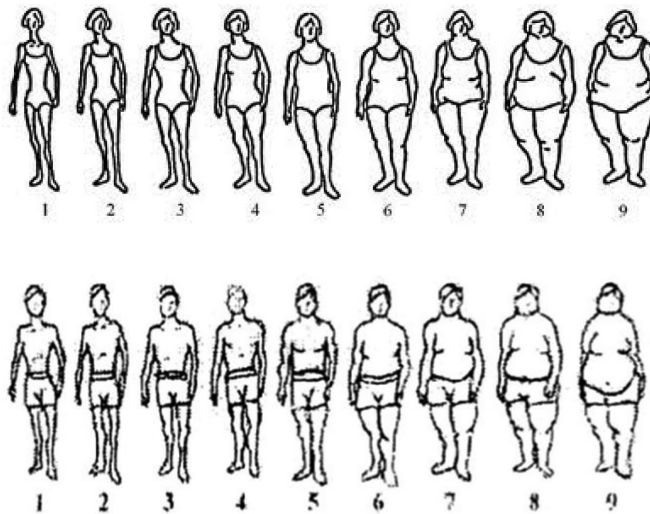
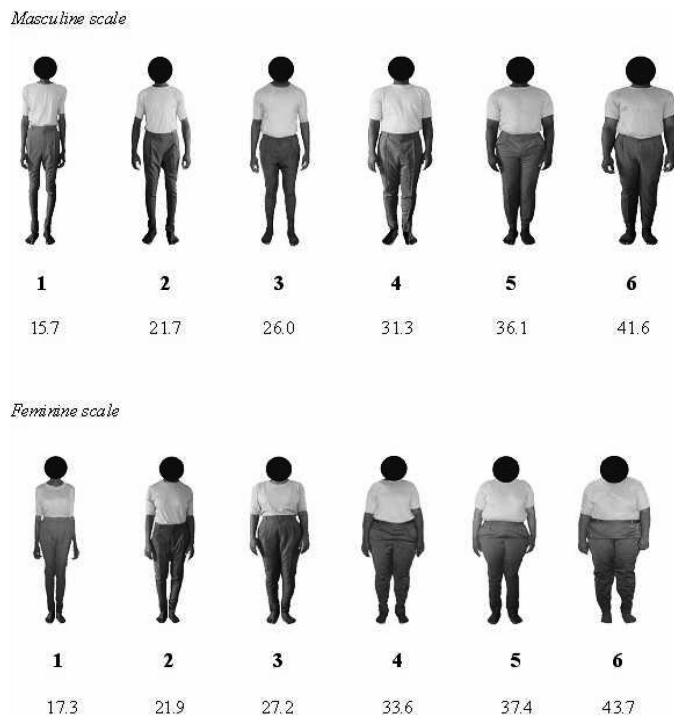


Figure 3

Silhouettes body size for male and female with BMI



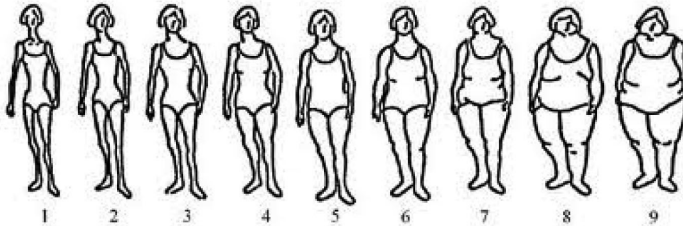
استبانة

النمط البدني المفضل بين الكويتيين والكويتيات

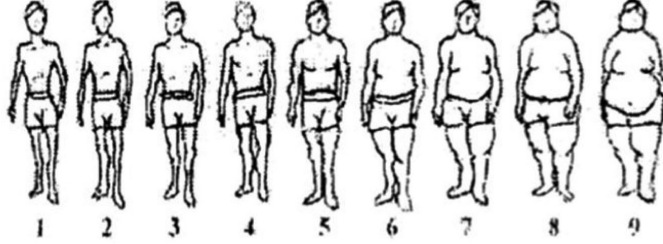
- 1 - سنة الميلاد:
- 2 - الجنس:
- 3 - الوزن:
- 4 - الطول:
- 5 - المحافظة: 3: المنطقة:
- 6 - المستوى التعليمي:

() ثانوي	() دبلوم ما بعد المتوسط	() متوسط	() ابتدائي	() تقرأ وكتب وما دون
() دكتوراه	() ماجستير	() دبلوم ما بعد الجامعة	() جامعي	() دبلوم ما بعد الثانوي

- 7 - كيف يمكن أن تقيمين مستواك الاقتصادي؟ رجاء وضع دائرة.
عالي جداً متوسط ضعيف جداً
0 1 2 3 4 5 6 7 8 9 10
- 8 - الدخل الأسري (الزوج/الزوجة)
() 500 و أقل () 800-501 () 1100-801 () 1400-1101
() 1700-1401 () 2000-1701 () 2300-2001 () 2301- وأكثر
- 9 - الحالة الاجتماعية :
() متزوج () غير متزوج () مطلق () أرمل () منفصل
10- المذهب: () سني () جعفري
11- الجذور: () حضرية () قبلية (بدوية) () ريفية/قروية
- رجاء وضع دائرة حول الرقم الذي يتطابق مع شكل جسمك الحالي:

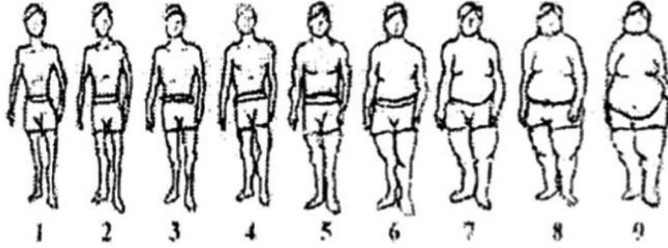


- رجاء وضع دائرة حول الرقم الذي يتطابق مع شكل البدن المفضل لديك للطرف الآخر :



- للمتزوجين أو سبق لهم الزواج فقط

- رجاء وضع دائرة حول الرقم الذي يتطابق مع شكل البدن الحالي لزوجك:



النمط البدني المفضل بين الكويتيين والكويتيات: دراسة سوسيوثقافية

أ. د. مها مشاري السجاري
أ. د. يعقوب يوسف الكندري

ملخص

الأهداف: تهدف الدراسة الراهنة إلى قياس أثر العوامل الاجتماعية الثقافية على اختيار النمط الجسدي المفضل لدى الكويتيين والكويتيات من وجهة نظر الأنثروبولوجيا الطبية.

المنهج: تتكون عينة الدراسة من 1229 مشاركاً، اختيروا بطريقة عمدية غير عشوائية. تكونت الاستبانة من أسئلة ديموغرافية ومقياس سلهوتيس لنمط الجسد المتكون من 9 أشكال للجسد. اعتمد في الدراسة على الوسائل الإحصائية الآتية: الترددات والنسب المئوية (الإحصاء الوصفي)، اختبار معامل العلاقة لقياس الفروق بين المتغيرات، ومعامل اختبار (ت) لقياس العلاقة بين المتغيرات، واختبار معامل التحليل الأحادي ANOVA لقياس العلاقات والفروق بين متوسطات المتغيرات الديموغرافية والاجتماعية لعينة الدراسة والنمط الجسدي المفضل للاختيار الزوجي.

النتائج: أشارت النتائج إلى أن 35.7% من الرجال و30.7% من النساء يفضلون النمط البدني النحيف للطرف الآخر. وهناك علاقة ذات دلالة إحصائية بين كل من العمر والمستوى التعليمي والاقتصادي وكتلة الجسد ($p < 0.05$)، والدين، والأصول العرقية، عند الرجال الكويتيين ($p < 0.001$) واختيارهم للنمط البدني المفضل للنساء. أشارت الدراسة أيضاً إلى وجود علاقة ذات دلالة إحصائية بين كل من المستوى التعليمي ($p < 0.05$)، والحالة الاجتماعية، والكتلة الجسدية، والأصول العرقية، والدين عند النساء الكويتيات ($p < 0.001$) واختيارهم للنمط البدني المفضل للرجال. **الخاتمة:** إن التفضيل الفردي للاختيار الزوجي يتباين بين الثقافات؛ وذلك يعود إلى أسباب اجتماعية واقتصادية وثقافية.

الكلمات المفتاحية: النمط البدني، الكويتيون والكويتيات، الأنثروبولوجيا الطبية، الزواج، الثقافة.

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