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# SLIMMING THE BODY: SLIMMING ADVERTISEMENTS, BODY DISSATISFACTION AND EATING DISORDERS AMONG MALAYSIAN WOMEN

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## ABSTRACT

This study aimed to examine the perceived effects of media exposure of body slimming advertisements on body dissatisfaction and tendency for eating disorders in a sample of adult women in Malaysia. This study examined two aspects: (a) the level of media exposure to slimming advertisements (media exposure), and (b) the tendency of respondents to make body comparisons with models in slimming advertisements (media body comparisons). Participants were 419 young women (18 – 39 years old) living in Kuala Lumpur. Correlation coefficients showed that media exposure and media body comparisons were positively associated with body dissatisfaction and eating disorders tendency. The findings suggest that mass media play a role by providing slim images that young women in Kuala Lumpur tend to emulate and adopt western cultural ideals of body image and the desire for a thinner body type.

Keywords: media exposure; body image; women; slimming advertisements; body comparisons

## INTRODUCTION

Slade (1994) defined body image as the “loose mental representation of the body.” (p. 500). It relates to how a person sees, thinks, and feels about his or her own body shape and size

(Nathanson & Botta, 2003). Myers and Biocca (1992) suggested that body image tends to be elastic because it can fluctuate in response to self-observation, others' comments, and social cues. When media are flooded with thin-ideal images and messages, more females tend to evaluate their bodies negatively, and some develop eating disorders (Harrison & Cantor, 1997; Harrison, 1997; Harrison, 2000a ; Harrison, 2000b). Mass media play a role in inducing young female adults to prefer thin bodies by portraying skinny female models (e.g. Bryant & Zhilman, 2002; Harrison, 1997; Heinberg & Thompson, 1995; Polivy & Herman, 1985,, as cited in Swami & Tovee, 2005, p. 124). Female models that appear on media are often thinner than the general female population (Fouts & Burggraf, 1999, 2000, as cited in Grabe, Ward, & Hyde, 2008, p. 460), and meet the criteria for anorexia (Wiseman, Gray, Moismann, & Ahrens, 1992, as cited in Grabe, Ward, & Hyde, 2008, p. 460).

Many businesses in many countries including Malaysia use mass media to promote weight loss products or services targeting young women. These businesses feature slim, sexy, and pretty women models in their advertisements. Some firms hire local or international slim-looking women celebrities to be their spokespersons. With the help of modern camera technologies, models featured in slimming advertisements are made to look highly attractive. They seem to have flawless physical appearance with firm breasts, slim waists, flat stomachs, narrow hips, and long thin legs. With media deluged with such perfect-looking body images, a question arises: will media exposure affect body satisfaction and eating habits in women?

## LITERATURE REVIEW

Studies conducted in Western cultures suggest that women are greatly affected by the media portrayals of slim images (e.g., Grabe, Ward, & Hyde, 2008; Harrison & Cantor, 1997; Stice, Schupak-Neuberg, Shaw, & Stein, 1994). Young girls and women, especially high school students and college, judge their own attractiveness based on physical attributes (Jackson, Hodge, & Ingram, 1994, as cited in Evans & McConnell, 2003, p. 153). With the media's continual portrayal of homogeneous images of slim young women, the stereotyped body image has become the standard of attractiveness (Jones, 2002). Thinness is often associated with positive qualities such as contentment, attractiveness, and success across media (Tiggemann, 2002, as cited in Yamamiya et al., 2005, p. 74). Women and girls who often use media for information tend to believe that thinness is the defining feature of female beauty and accomplishment. Botta (1999, 2000) found that adolescent girls who identify with thin images depicted in the media as sensible goals to pursue are more apt to make comparisons of their bodies with those presented in the media. But because the thin body depicted in media is unrealistic and unattainable by most girls and women, internalizing and pursuing this putative standard of beauty may cause them to feel bad about their own body, and in some cases may develop eating disorders (Botta, 1999; Harrison & Cantor, 1997; Stice et al., 1994).

Myers and Biocca (1992) found that young college women overrated their body size after viewing 30 minutes of television advertisements and programs depicting thin and average size of women's bodies. They concluded young women's body images are unstable and can change in response to media images and messages. They found this particularly worrisome because a short exposure of 30 minutes changed their perceptions. They explained such changes as a form of cultivation effect. As a result of exposure, young women are likely to regard the body types portrayed by media as the mainstream standards of ideal body and overestimate the number of females in the population with such ideal body types. These

conclusions imply that the media may be responsible for body image distortions in young women. Stice, Schupak-Neuberg, Shaw, and Stein (1994) investigated the relationship between media exposure and eating disorder symptomatology among women college students. They found that media exposure not only had a direct effect on eating disorder symptomatology, but also had indirect effects through gender-role endorsement, thin-ideal internalization, and body dissatisfaction. Their findings suggest that media play a role in cultivating stereotyped images of beauty and gender roles, which in turn may lead to body dissatisfaction and unhealthy eating behaviours. Harrison and Cantor (1997) examined the effects of thinness-depicting and thinness-promoting (TDP) media on college women's tendencies for eating disorders, drive for thinness, and body dissatisfaction, as well as on college men's endorsement of thinness. TDP media refers to TV programs and magazines that portray thin body images. They found that reading magazine, especially fitness and fashion, had significant positive correlations with eating disorders tendency, and the drive for thinness among college women.

Grabe, Ward, and Hyde's (2008) meta-analysis on 77 experimental and correlational studies of media exposure effects found generally the effect sizes were small to moderate. They concluded that media exposure is associated with women's body dissatisfaction, thin-ideal internalization, and eating behaviours, regardless of measurement techniques, media type, and unique study characteristics. Wong (2009) examined the effects of unsolicited media exposure to fitness and slimming advertisements on body dissatisfaction, weight-loss behaviour, and eating disorder symptomatology among Hong Kong adolescents and young adults. She found that the greater the media exposure, the greater the body dissatisfaction, weight-loss behaviour, and eating disorder symptomatology, especially among females, although the effect sizes were small.

Studies with Malaysian adolescents and young adults (Khor et al., 2009; Kuan et al., 2011; Pon, Kandiah, & Taib, 2004) found that a significant proportion of Malaysian adolescents and young adults were not satisfied with their current body image. Pon, Kandiah and Taib (2004) compared normal weight and overweight Malaysian adolescent girls on their body image perception, dietary practices, and physical activity. They found that normal weight girls were twice as likely to perceive their body weight incorrectly compared to overweight girls; 74% of the normal weight girls desired to lose weight. Although overweight, relative to normal weight, girls expressed greater dissatisfaction with their body image and stronger desire to lose weight. However, there was no significant difference between both groups in their everyday eating behaviours. They reported that both groups skipped at least one of their daily meals, possibly because adolescent girls tend to be influenced by the thin ideal in mass media and likely to engage in behaviours that would help them maintain low weight. Other Malaysian studies have found support for Pon et al. conclusions (e.g., Dev, Permal, & Fauzee, 2009; Khor et al., 2009; Kuan et al., 2011).

Khor et al. (2009) and Kuan et al.'s (2011) found both male and female adolescents and young adults are concerned with their body image. Compared to males, females tend to express a higher level of concern about their body image. Kuan et al. (2011) also found that some young women resorted to taking purgatives and self-induced vomiting as a way of losing/maintaining weight. Mellor et al. (2009) examined the sociocultural influences on Malaysian adolescents' body dissatisfaction and body change behaviours. Girls were found to engage more in weight-loss strategies, while boys were found to engage more in muscle-building strategies. In respect to sociocultural influences on body attitudes and behaviours,

boys reported greater pressure from peers, family members, and the media to build more muscles, while girls reported greater pressure from the media to lose weight. Although differences were also found in sociocultural influences for different ethnic groups, Mellor et al. (2009) concluded that overall the emphasis on ideal body images in the media is the major predictor of body dissatisfaction and body change behaviours among Malaysian adolescents.

Gan, Nasir, Zalilah, and Hazizi (2011) also found that sociocultural factors (e.g., family, friends, partners, and media) play an important role in developing body dissatisfaction and unhealthy eating habits among Malaysian adolescents. They found that weight-related teasing and social pressure to be thin were the most prevalent factors related to eating disorders. Sociocultural influences played an indirect role in developing eating disorders through psychological distress among male students, that is, males who felt greater pressure to be thin (from family, friends, partner, and media) and faced with a higher frequency of weight-related teasing experienced more psychological distress, which in turn led to them developing an eating disorder. Conversely, for women, sociocultural influences had both direct and indirect effects on the development of an eating disorder. In other words, females did not necessarily experience psychological distress to feel the pressure to be thin, rather sociocultural influences (e.g. media, friends, and family) seemed to have had direct impact on their desire to be thin and consequently developing eating disorders. It is also that women receive more messages about their appearance than males (Gillen & Lefkowitz, 2009, as cited in Gan et al., 2011).

However, the aforementioned studies (Gan et al., 2011; Mellor et al., 2009) did not focus on media influences on the development of body dysmorphic and eating disorders. According to Botta (1999), making comparisons of one's body with media images was the strongest predictor of body dysmorphic and eating disorders in Malaysian adolescents. More specifically, the more they compared their bodies with media images, the more they reported (a) dissatisfaction with their bodies, (b) the desire to be thin, and (c) engaging in unhealthy eating behaviours.

Although eating disorder cases are relatively rare in Malaysia compared to Western countries, Gan et al. (2011) be certain that it is likely to increase and may be underreported. To the authors' knowledge, there is little research in Malaysia that has systematically examined the influence of media on body dysmorphic and eating disorders. The current study investigated the extent to which media exposure to slimming advertisements is associated with body dissatisfaction and eating disorders tendency in a convenient Kuala Lumpur sample. Based on the literature review it was hypothesized that frequency of exposure of advertisements of slim models and celebrities would be significantly correlated with body dissatisfaction, and the tendency for developing eating disorders. We also predicted that frequency of self-media image comparisons would be significantly correlated with body dissatisfaction and the tendency for developing eating disorders.

## **THEORETICAL FRAMEWORK**

According to Gerbner (1969), Cultivation theory explains how television content influences viewers' beliefs about social reality. It suggests that heavy viewers tend to perceive their social reality in ways as portrayed on television, even though the content does not reflect the true world they are living in. This theory implies that media effect grows eventually through repetitive and frequent viewing (Van Vonderen & Kinnally, 2012). As applied

in body image literature, Cultivation Theory (Nabi, 2009) explains how media consumers internalise those unrealistic thin images and potentially end up in body dissatisfaction and eating disorder symptomology. According to Nabi (2009), females who are often exposed to thin media images would believe that thinness is the mainstream standards of beauty to which they should adhere. The frequent and repetitive viewing makes them internalise the thin ideal and pursue a thinner body. As a result, females are likely to experience body dissatisfaction when they fail to meet the ideal body shape and practice unhealthy eating habits to achieve a thinner body.

Wong (2009) found that the greater the frequency of exposure to slimming advertisements, the greater the body dissatisfaction, weight-loss behaviour, and eating disorder symptomatology were reported. She posited that exposure to thin images could induce certain negative feelings, which possibly affect the behaviours later. It suggests that the higher the level of media exposure to slimming advertisements, the greater the respondents would report in body dissatisfaction and eating disorders tendency. This is because females who are often exposed to thin images in slimming advertisements would tend to believe thinness is the essential defining element of female beauty. And in the attempts to pursue a thinner body, they are likely to experience body dissatisfaction and eating disorders tendency. Botta (1999) suggested that Social Comparison theory is useful in examining the effect of media exposure on body image disturbance because it explains the linkage between viewing, attitudes, and behaviour.

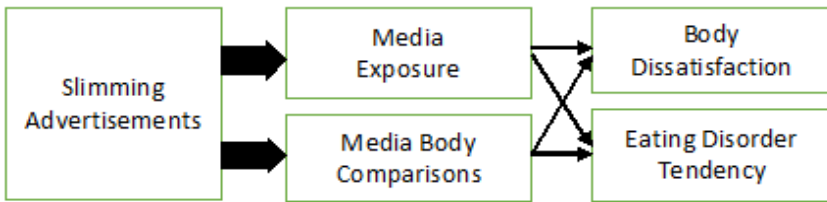
According to Festinger's (1954) Social Comparison Theory, individuals compare themselves with others, whom they perceive to have similar attributes when they are uncertain about their abilities and qualities. Richins (1991) and Kruglanski and Mayseless (1990, as cited in Knobloch-Westerwick & Crane, 2012) found that females often see models or celebrities in the media as the targets for comparison when they are unsure of their own attractiveness. This comparison, defined by Latane (1966, as cited in Buunk, Collins, Taylor, VanYperen, & Dakof, 1990) as upward social comparison, is likely to cause them to experience negative feelings because comparing oneself to someone who is more preferable may lead them to find a discrepancy in the comparison and acknowledge a shortcoming (Wood, 1989, as cited in Knobloch-Westerwick & Crane, 2012). In the end, this social comparison normally ends up with conformity (Festinger, 1954).

In this study, Social Comparison theory explains how the tendency of respondents to make body comparisons with female models or celebrities in slimming advertisements could affect their body dissatisfaction and eating disorders tendency. It suggests that the more the young female adults in Kuala Lumpur compare themselves with models or celebrities in the slimming advertisements, the more they are dissatisfied with their bodies, and the higher the chance that they have eating disorders problem. This is because models or celebrities who appear in the slimming advertisements may be perceived to be the societal standards of beauty through the cultivation effect. They serve as a source for females to assess their body image and attractiveness.

Females who perceive the images as sensible goals to pursue would tend to compare themselves with the images and notice a discrepancy in the comparisons. This discrepancy is then accountable for increased motivation to become thinner (Botta, 1999). But because women presented in advertisements are often airbrushed to create flawless physical appearance (Kee & Farid, 2011, as cited in Kiefner-Burmeister, 2014, p. 6), it is impossible for every female to achieve this standard of beauty. As a result, they may experience body dissatisfaction

and take up eating disorder behaviours. Indeed, researchers have found that females who were likely to compare their bodies with media idealized bodies reported greater body dissatisfaction and eating disorder symptomology (Botta, 1999; Evans & McConnell, 2003; Bessenoff, 2006; Berg et al., 2007).

Based on the literature review and theoretical framework, it is hypothesized that there is a significant relationship between media influence, body dissatisfaction, and eating disorders tendency. To test out the media influence, the frequency of media exposure to slimming advertisements (media exposure) and the tendency of respondents to make body comparisons with models or celebrities in the slimming advertisements (Media Body Comparisons) were taken into consideration (see Figure 1).



**Figure 1: Theoretical Framework**

**RESEARCH HYPOTHESES**

As discussed in the literature review, several researchers (e.g. Stice et al., 1994; Harrison & Cantor, 1997; Botta, 1999; Grabe et al., 2008; Wong, 2009) have shown that exposure to media-portrayed thin ideals has both direct and indirect effect on body image disturbance and eating disorder symptomatology. Therefore, it is hypothesized that media exposure to slimming advertisements has an impact on body dissatisfaction and eating disorders tendency. The higher the media exposure, the higher the body dissatisfaction and eating disorders tendency are reported.

- H1: There is a significant positive relationship between media exposure and body dissatisfaction.
- H2: There is a significant positive relationship between media exposure and eating disorders tendency.

In Botta’s (1999; 2000) studies, she found that making comparisons with media images was more accountable for body image disturbance than mere exposure. She argued that the more the females compare themselves with media images that they perceive to be real, the more they dislike their body, the more they crave to be thin, and the more they take up eating disorder behaviours. Media play an indirect role by providing thin images for females to emulate (Botta, 1999). Other researchers (e.g. Jones, 2002; Bessenoff, 2006) also found that social comparison was strongly and positively correlated with body dissatisfaction. Hence, it is hypothesized that the more the young female adults compare themselves with models or

celebrities in the slimming advertisements, the more they are dissatisfied with their bodies, and the higher the chance that they have eating disorders problem.

H3: There is a significant positive relationship between media body comparisons and body dissatisfaction.

H4: There is a significant positive relationship between media body comparisons and eating disorders tendency.

## **METHOD**

### **Participants**

A total of 419 women (Age 18-39) from Kuala Lumpur participated in the study. The majority of the respondents were Chinese ( $n = 385$ , 91.9%), followed by Malays, ( $n = 19$ , 4.5%) and Indians ( $n = 15$ , 3.6%). All participants had at least high school education; over 75% indicated completing high school diploma or higher. The majority (61.1%) of participants reported (self-report) normal BMI levels; 25.3% were underweight, and the 12.6% were overweight. Participation in the study was voluntary and they were given the option to withdraw from the study at any time without penalty. Demographic and other personal data are summarized in Table 1.

### **Instruments and Procedures**

A self-report questionnaire with 101 items was used in this study to collect data. The questionnaire was divided into six parts: Part 1 included questions on demographic and other personal data; Part 2 included items on the level of exposure to slimming advertisements; Part 3 had items on the frequency of making body comparisons with media images; Part 4 had items on the frequency of critical processing of media images; and Part 5 and Part 6 had items on body dissatisfaction and eating disorders tendency, respectively.

#### *Media Exposure:*

Respondents were asked to state the frequency of exposure to a list of slimming advertisements in the past one-month. The advertisements were chosen based on their usage of slim models or celebrities as spokespersons and displayed on billboards, TV, radio, magazine, newspapers, and social media.

Respondents were asked to use a six-point Likert-type scale (1=Never; 2=Once or twice a month; 3=Several times a month; 4=At least once a week; 5=Several times a week; 6=Everyday) to indicate the frequency of their exposure to nine slimming advertisements (e.g. Terimee, Slimming Sanctuary, Mayfair Bodyline, Marry Chia, Bizzy Body, London Weight Management, Marie France, Dorra, and Dr. Nano Labcel). An item "Others" was added for participants to indicate any additional advertisement that might have been excluded from the list.

Media exposure was measured using 19 self-report items. The media exposure score was calculated by summing the frequency ratings of exposure to each slimming advertisement and the frequency ratings of exposure to each medium. The media exposure scores range from 19 to 114 with higher scores indicating greater exposure. In the present study, the

media exposure score was found to be highly reliable with a Cronbach's alpha of .90 (see Nunnally, 1978).

*Media Body Comparisons:*

The Body Comparison Scale by Thompson et al. (1999) was used to assess respondents' tendency to make body comparisons with female models/celebrities in slimming advertisements. The scale was initiated to measure the tendency of individuals to compare their body parts with other individuals of the same sex. It is a 25-items scale, which comprises a listing of 20 body parts (e.g. nose, hair, waist, hips) and five general somatic features (e.g. muscle tone of the upper body, overall shape of the lower body). Fisher, Dunn, and Thompson (2002) found that higher comparison levels were associated with body image disturbances in women.

Respondents were asked to use a six-point Likert-type scale (1=Never; 2=Rarely; 3=Sometimes; 4=Often; 5=Very often; 6=Every time) to report how often they compare their specific body parts with those female models or celebrities in the slimming advertisements. The possible score of media body comparisons ranges from 25 to 150. Higher total scores reflect greater media body comparisons. The Body Comparison Scale was found to be highly reliable ( $\alpha = .97$ ) in the current study.

*Body Dissatisfaction:*

A short form of the Body Shape Questionnaire (BSQ-8C, Evans & Dolan, 1993) was used to assess respondents' body dissatisfaction. The original Body Shape Questionnaire (BSQ) was developed by, Taylor, Cooper, and Fairburn (1987) to measure body dissatisfaction triggered by feelings of being fat. However, Evans and Dolan (1993) created four different short forms of the BSQ later and found that all the short forms have high internal consistency reliability, ranging from .88 to .94. They concluded that the four different short forms of the BSQ are reliable to measure body image dissatisfaction. Among the four short forms, BSQ-8C is the most promising version of the BSQ and recommended to be used in non-clinical and clinical setting (Pook, Tuschen-Caffier, & Brahler, 2008). As such, the short form of BSQ-8C was chosen for this study.

The BSQ-8C consists of eight items. Respondents were asked to use a six-point Likert-type scale (1=Never; 2=Rarely; 3=Sometimes; 4=Often; 5=Very Often; 6=Every time) to state how they felt about their body image over the last month. For example, "Have you been afraid that you might become fat or fatter?"; "Have you imagined cutting off fleshy areas of your body?"; and "Have you felt excessively large and rounded?" The possible score of BSQ-8C range from 8 to 48. Higher scores indicate a higher level of body dissatisfaction. The BSQ-8C scale was found to be highly reliable ( $\alpha = .93$ ) in the current study.

*Eating Disorder Tendency:*

Eating disorders tendency was measured by using the Eating Attitudes Test (EAT-26, Garner, Olmsted, Bohr, & Garfinkel, 1982) Questionnaire. It is a self-reporting test requiring respondents to report in a six-point scale (1=Never; 2=Rarely; 3=Sometimes; 4=Often; 5=Very Often; 6=Every time) how often they engage in certain behaviours such as "avoid eating when I am hungry", "vomit after I have eaten", and "enjoy trying new rich foods." It has 26 items to screen for eating disorders. It is highly reliable and valid (Garner et al., 1982; Lee,



Kwok, Liau, & Leung, 2002; Mintz & O'Halloran, 2000). The EAT-26 test was found to have good internal consistency reliability in the current study, with a Cronbach's alpha of .89. The EAT-26 scores range from 26 to 156. Higher scores indicate higher eating disorders tendency.

**Population and Sample size**

Young adult women in Kuala Lumpur were the population of interest for this study. Kuala Lumpur was chosen because research shows that there is a noticeable increase in clinical eating disorders in the city (Hsien-Jin, 2000, as cited in Swami & Tovee, 2005, p. 117). Moreover, young female adults, especially those between 18 – 25 years, are the people at high risk of developing body image disturbance and eating disorders (Levchuck et al., 2000; Mazzeo & Espelage, 2002). However, the 18 – 39 years age range was defined as young adults in this study. Females aged 40 and above were not included in the study because they are categorized as a middle-age group in Malaysia (Bujang et al., 2012; Chin et al., 2012; Karim & Kather, 2003).

According to Department of Statistics (DOS) Malaysia Population Quick Info (2017) there are approximately 397,000 young female adults, aged between 18 – 39 years, living in Kuala Lumpur. By Yamane's (1967) simplified formula, where the precision level is ± 5% and confidence level is 95%, the sample size should be around 400 respondents. Yamane's (1967) simplified formula to calculate sample sizes:

$$n = N / [1 + N (e)^2]$$

\* *n* = Sample Size; *N* = Target Population Size; *e* = Precision Level

| Size of Population (N) | Sample Size (n) for Precision (e) of: |     |     |      |
|------------------------|---------------------------------------|-----|-----|------|
|                        | ±3%                                   | ±5% | ±7% | ±10% |
| 400,000                | 1108                                  | 400 | 204 | 100  |

Note: Sample size for precision level of ±3%, ±5%, ±7%, and ±10% by using Yamane's (1967) simplified formula.

**Sampling**

Participants had to be female adults, aged between 18 – 39 years, and working and or living in Kuala Lumpur to be included in the study. Snowball sampling was used in the study to recruit relevant respondents. In order to collect a minimum of 400 responses, printed and online questionnaires were used. The researchers approached the potential respondents who worked or lived in Kuala Lumpur in person and through email with snowball sampling procedure. The purpose of the study was explained to each of them. Those who were willing to participate were requested to complete the questionnaire. They were also requested to identify and pass on the questionnaires to relevant respondents whom they knew either personally or send them an online link through email. A statement explaining the researcher's background and the research objectives was attached on the first page of the questionnaire. The statement assured the respondents that the survey was for research purposes only. None of their identities would be disclosed to anyone.

Each respondent was requested to respond in a week. Answered questionnaires in the printed form were collected by the researchers when completed. Online questionnaires

were available during the data collection period until the sufficient numbers of responses were collected.

The data collection process took up almost two months. A total of 433 responses were collected through the printed and online questionnaire. However, 14 responses were excluded from the final data analysis due to incomplete and irrelevant responses. In the end, only 419 responses were used for the final data analysis.

## RESULTS

**Table 1: Demographics Characteristics of Respondents (N = 419)**

| Characteristic                           | n   | %     |
|--|-----|-------|
| <b>Age (years)</b>                       |     |       |
| 18 – 25                                  | 266 | 63.5% |
| 26 – 39                                  | 153 | 36.5% |
| <b>Ethnic Background</b>                 |     |       |
| Malay                                    | 19  | 4.5%  |
| Chinese                                  | 385 | 91.9% |
| Indian                                   | 15  | 3.6%  |
| <b>Highest education level completed</b> |     |       |
| Lower than a Diploma                     | 104 | 24.8% |
| Diploma                                  | 170 | 40.6% |
| Bachelor Degree                          | 126 | 30.1% |
| Masters Degree and above                 | 19  | 4.5%  |
| <b>Monthly income (RM)</b>               |     |       |
| No income                                | 195 | 46.5% |
| Below 2000                               | 39  | 9.3%  |
| 2001 – 3000                              | 61  | 14.6% |
| 3001 – 4000                              | 54  | 12.9% |
| 4000 and above                           | 70  | 16.7% |
| <b>Body Mass Index (BMI)</b>             |     |       |
| Less than 18.50 (Underweight)            | 106 | 25.3% |
| 18.50 – 24.89 (Normal weight)            | 256 | 61.1% |
| More than 24.90 (Overweight)             | 53  | 12.6% |
| <b>Perception of own body</b>            |     |       |
| Extremely underweight                    | 4   | 1%    |
| Underweight                              | 33  | 7.9%  |
| Normal or average in weight              | 237 | 56.5% |
| Overweight                               | 130 | 31%   |
| Extremely overweight                     | 15  | 3.6%  |

**Desire to lose or gain weight (kg)**

|                  |     |       |
|------------------|-----|-------|
| Lose 1 – 3       | 99  | 23.6% |
| Lose 4 – 6       | 100 | 23.9% |
| Lose more than 6 | 112 | 26.7% |
| Gain 1 – 3       | 25  | 6%    |
| Gain 4 – 6       | 16  | 3.8%  |
| Gain more than 6 | 4   | 1%    |
| No changes       | 63  | 15%   |

**Exercise regularly**

|     |     |       |
|-----|-----|-------|
| Yes | 141 | 33.7% |
| No  | 278 | 66.3% |

**Participated in slimming programs**

|     |     |       |
|-----|-----|-------|
| Yes | 36  | 8.5%  |
| No  | 383 | 91.5% |

**Test of Predictions on Media Exposure**

Table 2 summarizes the results of all predictions. Predictions that media exposure would be significantly correlated with both body dissatisfaction ( $r = .167, n = 416, p < .01$ ) and eating disorder tendency ( $r = .171, n = 416, p < .01$ ) were supported, albeit weekly using Cohen’s(1988) guidelines. Predictions that media degree of self-media image comparisons would be significantly correlated with body satisfaction ( $r = .457, n = 416, p < .01$ ) and eating disorder tendency ( $r = .415, n = 416, p < .01$ ) were also supported with moderately strong correlations.

**Table 2: Means, SDs and Correlations between Predictor and Criterion Variables**

| Criterion Variables                                 | Predictors           |       |      |      |                          |       |      |      |
|---|----------------------|-------|------|------|--------------------------|-------|------|------|
|   | Body Dissatisfaction |       |      |      | Eating Disorder Tendency |       |      |      |
|   | M                    | SD    | r    | p<   | M                        | SD    | r    | p<   |
| Media Exposure<br>( $M = 46.13, SD = 16.64$ )       | 27.82                | 10.68 | .167 | .01  | 61.74                    | 18.17 | .171 | .01  |
| Media Body Comparisons<br>( $M=68.96, SD = 10.68$ ) |                      |       | .457 | .001 |                          |       | .415 | .001 |

Both hypothesis 1 and 2 were accepted, there was a significant relationship between media exposure and body dissatisfaction, and between media exposure and eating disorders tendency. Results showed that media exposure was positively and weakly correlated with body dissatisfaction and eating disorders tendency. This suggests that the more young female adults are exposed to slimming advertisements depicting thin models or celebrities, the more they are likely to experience body dissatisfaction, and the more they are likely to take up eating disorder behaviours.

Hypothesis 2 and 3 also accepted. Results revealed that there was a significant positive relationship between media body comparisons and body dissatisfaction and between media body comparisons and eating disorders tendency. The more young female adults compared their bodies with those of female models or celebrities in slimming advertisements, the more they were dissatisfied with their body, and the more they reported of having eating disorders tendency.

## DISCUSSION

Results were consistent with those of previous studies (Khor et al., 2009; Kuan et al., 2011; Pon et al., 2004) as the more young adult women are exposed to slimming advertisements depicting thin models or celebrities, the more likely they are to experience body dissatisfaction, and also the more likely they are to engage in maladaptive eating/purging behaviours. These results support the assertion that media exposure, especially to thinness-depicting and thinness-promoting (TDP) media, may play a role in experiencing body dissatisfaction and eating disorders (Harrison & Cantor, 1997). However, caution is needed in interpreting the results because the correlations were weak ( $r_s$  of .167 and .171). Also, no causal implications can be drawn since this is a correlational study.

The results were more strongly supportive of the association self-media image comparisons with both body dissatisfaction and engaging in maladaptive eating/purging behaviours ( $r_s$  of .457 and .415, respectively). These results suggest that social comparison theory provides a useful perspective in understanding the relationship between media exposure to thin images, body dissatisfaction, and tendency for eating disorders. In other words, the effect of media exposure to thin images is mediated by social comparisons (Berg et al., 2007; Bessenoff, 2006; Evans & McConnell, 2003).

The results suggest when women compare themselves with models or celebrities (upward social comparisons), whose images are often beautified by software technologies to have smooth skin, slim waist, flat stomachs, firm arms, and long thin legs, they are likely to experience negative feelings about their own bodies (Tiggemann & McGill, 2004, as cited in Knobloch-Westerwick & Crane, 2012, p. 81). Such comparisons may lead individuals to think about their own bodies' shortcomings or deficiencies (Wood, 1989, as cited in Knobloch-Westerwick & Crane, 2012, p. 81) and result in a desire to overcome those perceived shortcomings by engaging in behaviours they think would result in them becoming physically like the displayed models. Social comparisons often lead to pressures of conformity (Festinger, 1954), possibly thinking that models had achieved their ideal bodies through similar behaviours. A simpler explanation may be that social comparison with media models may lead to the perception that current body size of respondents is far larger than ideal body size, rather than emulating the model's perfect figure. Based on the demographic data, it appears that the majority of the young women were not satisfied with their current body size—almost 74.2% ( $n = 311$ ) preferred a thinner body, and of the 311 respondents, 112 (26.7%) wanted to lose more than 6 kilograms (see Table 1).

## IMPLICATIONS OF THE STUDY

Overall, the results of this study imply that young female adults in Kuala Lumpur may have adopted a western culture that desires a thinner body type. The concern of having an

ideal body image seems to have started in some parts of Malaysia. This also implies that preventive measures should be developed and taken to avoid the condition to deteriorate. Based on the results of this study, it seems that intervention programs that help to increase young female adults' critical thinking may not be effective in diminishing the media effect if both the peripheral and central contents are promoting thinness. Perhaps, intervention programs that focus on encouraging young female adults not to compare their bodies with media thin images may be helpful. As argued by Posavac, Posavac, and Weigel (2001, as cited in Botta, 2003, p. 398), preventing women from taking part in social comparisons is the key to media literacy interventions.

### **LIMITATION AND SUGGESTION FOR FUTURE STUDY**

In conclusion, although the results are supportive of earlier studies conducted in the West about the association of exposure to slim models or celebrities, causal implications cannot be drawn that such comparisons cause young women to become dissatisfied or inclined to engage adaptive eating/purging behaviours because the study is of a correlational nature and based on self-reports. The results are also based on a convenient sample and not generalizable to the population of young women in Kuala Lumpur.

There are a few limitations in this study. First, this study focused only on young female adults in Kuala Lumpur, thus excluding those young female adults who live in other cities in Malaysia. Second, non-probability snowball sampling was used in the study. There might be a sampling bias in the study, and this might affect the precision of the inferences made. Third, this was a quantitative study. Respondents were asked to fill out a questionnaire by selecting the most appropriate answer to represent their point of view for each question. As such, the responses were collected in a constrained manner.

Future studies should extend to other cities to reflect a wider perspective on how media influence Malaysian young female adults' body dissatisfaction and eating disorders tendency. Besides, to fully understand the effect in a Malaysian context, cross-ethnic comparison should be made among the three main ethnic groups: Malays, Chinese, and Indians. As proposed by Swami and Chamorro-Premuzic (2008), people from different cultures may hold different body ideals and attitudes towards their body. Future research should include people from the three main ethnic groups and compare the results to examine if there is any difference between Malays, Chinese, and Indians in body dissatisfaction and eating disorders tendency. Moreover, future research should also combine quantitative and qualitative approaches in the study. Using a combination of quantitative and qualitative approaches enables a researcher to collect in-depth information, which in turn provides a better understanding of how media influence young female adults' body dissatisfaction and eating disorders tendency.

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