Title: The thinner the better: Evidence on the internalization of the slimness ideal in Chinese college students

Abstract

Internalization of the "thin ideal" is a risk factor for eating pathology. It is unclear how pervasive the "thin ideal" is among young Chinese. In the current study ninety-seven participants reported their subjective willingness to be thin and their eating-disorder-related weight-controlling behaviors, and then finished a picture judgment task to implicitly detect their perception of the importance of thinness to attractiveness. Hierarchical Linear Modeling (HLM) was used to analyze the data. Among the female participants, 79.59% wanted a thinner body. Participants' level of willingness to be thin correlated positively with frequency of eating-disorder-related weight-controlling behaviors (r=0.47, p<0.05). In the implicit task, the judgement of others' attractiveness correlated negatively with BMI evaluation, and this relationship was stronger for women's pictures than men's. Additionally, an individual's willingness to be thin enhanced the relationship between BMI evaluation and attractiveness judgement. The notion "the thinner the better" seems to be widely accepted among young Chinese.

Keywords: thin ideal; attractiveness; HLM; body dissatisfaction; willingness to be thin

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People's knowledge of beauty is heavily shaped by the fashion world, where a skinny body mass index (BMI), the so-called "Paris thin", seems to be paramount (Clements, 2013). International catwalk models have an average BMI below16 (Record & Austin, 2016), which is already 2.5 units less than the lower limit of the healthy range and can be considered medically dangerous (World Health Organization, 1995). Repeated exposure to unrealistically thin women in the media has led to the wide-spread acceptance of the thin ideal in women (Grabe, Ward, & Hyde, 2008; Yamamiya, Cash, Melnyk, Posavac, & Posavac, 2005). This may have also contributed to the pursuit of unattainable small body size in many women and, in fact, may have contributed to severe eating disorders (Prost-Lehmann, Shankland, França, Laurent, & Flaudias, 2018; Sypeck, Gray, & Ahrens, 2004; Thompson & Stice, 2001). However, it is unclear whether BMI also contributes to the judgement of attractiveness of everyday women.

In attempting to answer this question, previous studies have presented pictures of women's bodies wearing either leotards or underwear, to patients with anorexia nervosa (AN) and/or healthy individuals (Horndasch et al., 2015; Tovee & Cornelissen, 2001; von Wietersheim et al., 2012). When women's bodies with extremely underweight BMI were included as pictures, an inverted U-shape was consistently observed between BMI evaluation and attractiveness judgement in both patients with AN and healthy individuals (Horndasch et al., 2015; Tovee & Cornelissen, 2001). For example, it has been reported that participants evaluated female bodies with a BMI of around 19.3 (within the normal range) as most attractive (Tovee & Cornelissen, 2001).

The findings appear to indicate that there is an optimal level of attractiveness with respect to BMI, and suggest that there is a limit to the idea that "thinner is better". This

observation is also consistent with the framework of natural selection, where characteristics contributing to personal survival and reproduction are favored. Thus, characteristics relating to women's health and fertility, such as a normal BMI, is viewed as attractive (Bovet, Barkat-Defradas, Durand, Faurie, & Raymond, 2017; Little, Jones, & DeBruine, 2011).

While the interpretation of this observation is reasonable, it appears counterintuitive based upon today's culture. Firstly, many women with a normal BMI experience body image dissatisfaction (Wang et al., 2018; Zaccagni, Masotti, Donati, Mazzoni, & Gualdi-Russo, 2014). Secondly, it seems that only women who are underweight are satisfied with their body shape (Kantanista, Król-Zielińska, Borowiec, & Osiński, 2017; Neighbors & Sobal, 2007). Thirdly, many women strive for a low BMI that is unhealthy (MacNeill & Best, 2015; Wang et al., 2018).

Yet, the ecological validity of these studies is questionable given the limited amount of information delivered to the participants. As mentioned, participants in these studies were presented with pictures of women's bodies wearing leotards or underwear, but with facial information removed or obscured. By using such stimuli, important real-world determinants of attractiveness (e.g., facial information and attire) were obscured. Exclusion of this information may unduly affect attractiveness judgement. As pointed out by Peters, Rhodes and Simmons (2007), individual attractiveness is usually perceived with face and body seen together. If presented with pictures of women in everyday apparel with identifiable faces, we hypothesized that people will give highest attractiveness score to those perceived to have low rather than healthy BMI. Since willingness to be thin is generally more popular among women than men, we also

hypothesized that BMI increase would have a larger detrimental effect on women's attractiveness judgement than men's. We further hypothesized that participants' willingness to be thin would enhance the relationship between BMI evaluation and attractiveness judgement. The findings may help us understand to what extent Chinese college students internalize the thin ideal. A previous survey in Beijing college students indicated that 72.8% of women and 46.2% of men wished to have a smaller figure than their current one (Wang et al., 2018). The prevalence of adult overweight in China has been increased from 11.7% in 1991 to 29.2% in 2009 (Gordon-Larsen, Wang, & Popkin, 2014). Besides, eating disorder is a relatively new mental disorder with less social attention in China, but the prevalence rate is high (Wang & Wang, 2015).

Method

Participants

The data structure in current study contained two levels, photo level (e.g., BMI, sex, attractiveness) and participant level (e.g., subjective willingness to be thin). According to Maas and Hox (2005), the participant-level variance would be estimated with bias if sample size is substantially lower than 100. We therefore set 100 as the planned sample size. Fliers were posted to several universities in Beijing. It was advertised as a 40-minute psychological experiment to evaluate other's pictures. The exclusion criteria included 1) neurological and psychiatric illness; 2) hearing, vision, or upper body motor impairment. Each participant handed in the written form of consent, and received ¥ 40 for their participation. This study was approved by ethics committee of the Institute of Psychology, the Chinese Academy of Sciences. Data of 2 female and 1 male participants were deleted due to either missing data (n=2, not reported ideal weight and height) or

poor data quality (*n*=1, giving the same response for almost all items in questionnaires)

Materials

The stimuli for computerized test included full-body photos of 126 young adults (63 females, example see Figure 1). All the photo models were recruited by fliers posted in a university campus in Beijing. We initially took photos of 130 photo models, but photos of 4 models were excluded due to consideration of photo quality. On the day of photo taking, volunteers were asked to wear a pair of fitting pants of dark colour. They then changed to white shirt of their size we provided before photo taking. All photos were taken with a Canon EOS 550 D camera with the same focal distance by a professional photographer. The location of camera, volunteer, and background screen were kept constant for all volunteers. The volunteers were told that the photos would be used for a psychological study and received ￥10 as reward. None of the volunteers coming for photo taking participated the subsequent experiment of this study. Only one photo for each volunteer was chosen for the subsequent experiment.

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Questionnaires

Body image attitude. Body image attitude was measured by the body mass index (BMI)-Based Silhouette Matching Test (SMT; Peterson, Ellenberg, & Crossan, 2003). This test included four sex-specific silhouettes of figures ranging from very slim to very

full and a 27-item interval scale below the four referenced silhouettes. Participants were asked to choose two numbers from the scale, with one to indicate their current figure and the other to represent the ideal figure which they would like to have. This test showed good reliability among Chines college students (Wang et al., 2018). Willingness to be thin was quantified as the difference score between current and ideal body image, with a larger score indicating a higher level of willingness to be thin.

Eating-disorder-related weight-controlling behaviors. The short form of the Eating-Disorder-Related Weight-Controlling Questionnaire (EDRWCQ) had five items (e.g., "Vomiting or taking laxatives"), with each item representing weight control behaviors commonly used by those with eating disorders (Wang et al., 2016). Each item was rated on a four-point Likert scale from 1 (never) to 4 (always) to indicate the frequency. A total score, ranging from 5 to 20, was computed by summing responses of 5 items, with a higher score indicating a higher risk for eating disorders.

Procedure

The participants filled in the SMT and EDRWCQ checklist, and provided the demographical information required. They then completed the two blocks of computerized others' body evaluation task. In block 1, the participants were first presented with a full-body photo at the centre of a computer screen. After 2000 ms the photo was replaced by a blank screen where participants were instructed to provide the best evaluation of the height (in cm) and weight (in kilogram) of the photo person by typing on the keyboard. After the participant input the values and pressed the enter key, the next photo appeared on the centre of the screen for 2000 ms, signaling the start of the next trial. In block 2, the procedure was similar to block 1, but the participants were

asked to judge the attractiveness of the photo model using a 1 to 9 scale, with a larger number indicating more attractive. All 126 full-body photos were presented in random order in both blocks.

Data analyses

For the computerized other's body evaluation task, responses with a reaction time smaller than 200 ms were deleted, so were responses outside of reasonable range (e.g., a weight evaluation of 10 kilogram). Visual inspection of the data suggested further deletion of another seven data point (BMI<14 or BMI >34). Altogether, about 6% of data were deleted from the original 12222 sets of data (97 participants*126 photo stimuli), the remaining 11489 sets of data were used for further analyses.

Hierarchical Linear Modeling (HLM) (Raudenbush & Bryk, 1992) was used to address (1) whether evaluated body mass index (weight adjusted by height, BMI= weight (kg)/height^2 (m)) contributed to attractiveness judgement, and (2) whether participants' willingness to be thin would moderate the contribution, if there was a significant one. HLM is an excellent method to analyze data when different levels of data are included in a study and when cross-level interaction (in our case, a level 2 variable, participant's level of willingness to be thin, interacted with a level 1 variable, photo model's BMI, on the prediction of photo model's attractiveness judgement) is expected (Raudenbush & Bryk, 1992). In our study, the level 1 data were height, weight, and attractiveness judgement, namely the 11489 sets of data (photo level). The level 2 data were willingness to be thin score (participant level).

HLM software (version 7.02) was used for HLM analyses. BMI for each photo was centred by mean of photos of the same sex when entered a regression model as the

independent variable. For the sex variable, female was coded as "1" and male was coded as "0".

Results

Demographic information of participants

The participants' ages ranged from 17 to 27 years (M = 22.63 years, SD = 1.65 years). BMI distributions, DASS scores, level of drive for thinness and EDRWCQ of each sex in the current sample were quite similar to those in a previous college sample (Wang et al., 2018). As summarized in Table 1, males were older, higher and heavier as compared to females. The two groups were comparable on years of education. Females (M = 3.02, SD = 3.06) had significantly higher willingness to be thin score than males (M = -0.20, SD = 4.22) (t = 4.28, df = 96, $p < 0.001$). Willingness to be thin correlated significantly with current BMI in both sex (male: r = 0.68, $p < 0.01$; female: r = 0.73, $p < 0.001$). Among all the participants, 22 males and 39 females wanted a slimmer body image, 5 males and 4 females were satisfied with their current body image, while 22 males and 6 females wanted a fuller body image. As expected, the frequency distribution was significantly different across sex (χ^2 = 13.99, df = 2, p = 0.01). The proportion of males who wanted a slimmer body image were identical to that of males who wanted a fuller body image, while significantly more females (79.59%) who wanted a slimmer body image than those females who wanted a fuller body image (12.24%). Females had slightly higher EDRWCQ scores than males, but the difference was not significant (p = 0.18).

Willingness to be thin score correlated significantly with EDRWCQ score (r = 0.47, $p < 0.01$). Thus higher level of willingness to be thin was companied with higher

frequency of eating-disorder-related weight-controlling behaviors.

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Photo model evaluations

Among 11,489 sets of data generated by 97 participants, 1240 and 2345 evaluations to the photo models were underweighted (14.69-18.49) and overweighted (23.01-31.53), separately. The 63 female models had an average evaluated height of 163.80 cm (*range* = 154.84-169.35 cm, *SD* = 2.89 cm), an average evaluated weight of 54.38 kg (*range* = 47.80-65.03 kg, *SD* = 2.04 kg), and an average BMI of 20.28 (*range* = 17.96-24.66, *SD* = 1.14). The 63 male models had an average evaluated height of 174.53 cm (*range* = 167.03-185.78 cm, *SD* = 3.87 cm), an average evaluated weight of 68.03 kg (*range* = 62.40- 78.12kg, *SD* = 3.58 kg), and an average BMI of 22.33 (*range* = 20.56-25.86, *SD* = 1.03)

HLM modeling

Table 2 summarizes all the equations for HLM modeling. Firstly, a null model was built to test the suitability to analyze the current data set with HLM method. The level 1 and level 2 models are expressed with equation 1 and equation 2, separately, where i indicates the ith photo and j indicates the jth participant. Equation 1 means that the jth participant's evaluation of the attractiveness of the ith photo is predicted by the mean attractiveness score of all photos evaluated by the jth participant, with rij represents the prediction error. γ_{00} in Equation 2 means grand mean of attractiveness across photos and across participants and μ_{0j} means random effect. There were significant variations among

participants in the attractiveness evaluation ($\chi^2 = 8235.29$, $df = 96$, $p < 0.01$). The Intra-class correlation was 0.42, indicating about 42% of the variance in attractiveness evaluations was between participants. Thus, it was suitable to use HLM to analyze the current data set.

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Next, we tried to detect the potential influence of evaluated BMI and photo sex on attractiveness judgement. The level 1 model is expressed with Equation 3a and level 2 model is expressed with equation 4, 5, 6, 7, where γ_{00} was the average intercept across all participants, μ_{0j} denoted the unique increment of the intercept associated with a certain participant, the $\gamma_{10,}$ γ_{20} and γ_{30} denoted the average regression slope across all participants, and μ_{1j} and μ_{3j} denoted the unique increment of the slope associated for a certain participant. The results are summarized on Table 3. As Figure 2 shows, BMI evaluated by the participants correlated negatively with attractiveness judgement, and the relationship is stronger for women's photos than men's.

As indicated in Table 3, we found that attractiveness judgement was significantly influenced by BMI evaluation, sex of the photo models, and the interaction of both. In fact, picture-level variance reduced 13% by adding these variables. Substituting the coefficients of Table 3 and sex code (0 for male photo stimuli and 1 for female photo stimuli) to Equation 3a, we obtained Equation 3b for female photos and Equation 3c for

male photos.

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Attractiveness = 4.54 - 0.24BMI + *r* (Equation 3b)

Attractiveness = 4.00 - 0.11BMI + *r* (Equation 3c)

From Equation 3b we could infer that average attractiveness evaluation for female was 4.54 (When BMI for female (centred) was 0), while the attractiveness score was 0.24 units lower with 1 unit increase of BMI. From Equation 3c we found that average attractiveness judgment for a male photo 4.00 (When BMI for male (centred) was 0), while the attractiveness score was 0.11 units down with 1 unit increase of BMI evaluation. Comparing intercepts of Equation 3b and Equation 3c we also found that participants tended to give a higher judgement rating to a female photo with average BMI. Comparing the slopes of Equation 3b and Equation 3c we found that higher BMI indicated lower attractiveness evaluation for photos of both sexes, but BMI increase had a larger detrimental effect on attractiveness judgement for females than for males (based on the slope, -0.24 for females vs. -0.10 for males). In fact, if a female's BMI was 4.15 unit above the average BMI (> 24.42, 4.15 units above the average number of 20.27), she would be given a lower attractive score than if she were a male with similar level of BMI (> 26.47, 4.15 units above the average number of 22.32).

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Finally, a slope-as-outcome model was used to test whether personal willingness to be thin would moderate the contribution of BMI on attractiveness evaluations. The level 1 model was the same as in the random-coefficient model (Equation 3a). We only added driving for thinness as independent variable in the level 2 model. The Level 2 model was similar to Equation 4 to Equation 7, but Equation 5 was changed to Equation 8a[1], where the γ_{11} quantified the change of β_{1j} if a participant chose an ideal figure which was one unit smaller than the current figure.

Substituting the coefficients in Table 3 to Equation 8, we obtained Equation 8b

$\beta_{1j} = -0.0940 - 0.0081$willingness to be thin $+ \mu_1$ (Equation 8b)

From the intercept of Equation 8b we found that for participants whose current body image was equal to ideal body image in SMT (when willingness to be thin score equal to 0), the coefficient γ_{10} was estimated to be -0.0940. The significant slope of -0.0081 showed that participants' willingness to be thin did impact the contribution of evaluated BMI to attractiveness of photo stimuli. It indicated that the more weight one wished to lose, the stronger she hold the belief that thinness would be important to attractiveness when evaluating others. If a participant had a unit increase in willingness to be thin (namely the ideal body image is one number smaller than current body image in the 27 point SMT task), then the slope would increase -0.0081 units beyond -0.0940 (when the

[1] We also investigated whether personal willingness to be thin had an impact on the relationship between BMI by photo sex interaction and attractiveness judgment (β_{3j}), and found it was not significant.

current and the ideal body image were the same in the SMT test).

Discussion

In order to examine the pervasiveness of the notion of "thinner is better" in the Chinese college students, we first asked participant to self-report their subjective willingness to be thin in this study, and then detected their implicit cognition on the importance of thinness to attractiveness with an experimental task. There are several interesting findings.

First, the majority of female participants (79.59%) wanted a thinner body. This proportion was very close to a previous study in an Italian female college students sample (81%; Zaccagni et al., 2014). It means that the willingness to be thin among female Chinse students has been spread as widely as in some Western countries. Given the low EDRWCQ score of this sample, it seems that many of the participants who strive for a slimmer body do not carry out any counter-regulatory actions. However, willingness to be thin score did correlate with frequency of eating-disorder-related weight-controlling behaviors. Eating disorder is a relatively "new" mental disorder in mainland China. However, due to the link between willingness to be thin and eating disorder, eating disorder risk duly needs public concern in the mainland China. In fact, the prevalence rate of eating disorder among young Chinse females aged 11-25 has been estimated to be 1.47-4.62% (Wang & Wang, 2015).

Second, with a set of stimuli high in ecological validity, current study revealed a favor of small rather than healthy BMI when Chinese college students evaluated others, especially when the others were women. Some previous studies reported a favor of healthy BMI when evaluated other female's photos with underwear or leotards

(Horndasch et al., 2015; Tovee & Cornelissen, 2001). Taken together, the findings suggest that the relationship between BMI and attractiveness may be influenced by attire. Unfortunately, in most of cases one's attractiveness was judged with daily apparels, while in such case a smaller BMI is associated with high attractiveness, especially for women.

Not everybody agrees that attractiveness equal to women's fertility (Pawlowski, Boothroyd, Perrett, & Kluska, 2008), but no one denies the advantage attractive women have in mate selection (Buss, 1989). Due to the importance of BMI to women's attractiveness and to other important domain (Oreffice & Quintana-Domeque, 2016), it is understandable why majorities of women in the United States, Italy, Iran, and China would go for a body with smaller BMI (Alipour, Abbasalizad Farhangi, Dehghan, & Alipour, 2015; Neighbors & Sobal, 2007; Wang et al., 2018; Zaccagni et al., 2014), if given the chance of free choice. Willingness to be thin is a common phenomenon in women across different cultures, which reminds us to search for an explanation from the evolutionary perspective. Extreme willingness to be thin is not an adaptive behavior according to natural selection mechanism, since the outcome may threaten pregnancy and personal survival. For example, the willingness by patients with AN for dangerous thinness will threaten both their survival and reproduction (American Psychiatric Association, 2013). Based on our results, we think women's willingness to be thin fit well with the other evolutionary mechanism proposed by Darwin (1874), namely, sexual selection. Our study revealed a pattern of "the thinner the more attractive". Thus, drive for thinness is adaptive behavior from the perspective of sexual selection.

We also found that the willingness to be thin enhanced the relationship between BMI and attractiveness when judging others. In another word, those who subscribe to the thin

ideal are at a higher risk in pursuing extreme thinness. We also observed a large correlation between willingness to be thin and BMI in each sex. It is thus likely that those with an overweighted BMI may buy the thin ideal more than those with a normal or underweighted BMI. Findings from current and previous studies showed majority of female college students with a normal BMI want a thinner body and prefer an underweighted BMI (Wang et al., 2018). It means that thin ideal has already been a trend in the mainland China. Individuals in Collectivism cultures generally have higher conformity pressure for social values (Markus & Kitayama, 1991). Given the widely acceptance of thin ideal in China, we can further assume that willingness to be thin may have more negative consequences in this typical Collectivism country.

Although the sample size in the current study is limited, findings from current study suggest that driving for thinness is widely accepted and that "thin ideal" is internalized among Chinese college students. Intervention and prevention measures on body image attitude and eating disorders are duly needed. Given the huge influence the fashion world on people's view of beauty, some changes backed by law may be necessary, as in some other Western countries (e.g., banning models of ultra-small BMI or the extreme use of Photoshop to promote thinness; Willsher, 2015).

This study has several limitations. First, we did not ask participants to evaluate the attractiveness of the models' faces . Second, because willingness to be thin was significantly correlated with BMI and sex, out of concern for collinearity we did not investigate how participants' sex and BMI affected the relationship between photo model's attractiveness judgement and BMI evaluation. Third, participants in the current study were young Chinese college students, so the findings may not generalize to Chinese

of other age groups or youth in other cultures, or clinical population. Finally, we did not collect socioeconomic data, which may have a potential influence on the results. However, the other's body evaluation task developed in the current study may serve as a tool to implicitly measure the thin ideal and related concept, such as weight concern.

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Figure 1. Two examples of photo stimuli used.

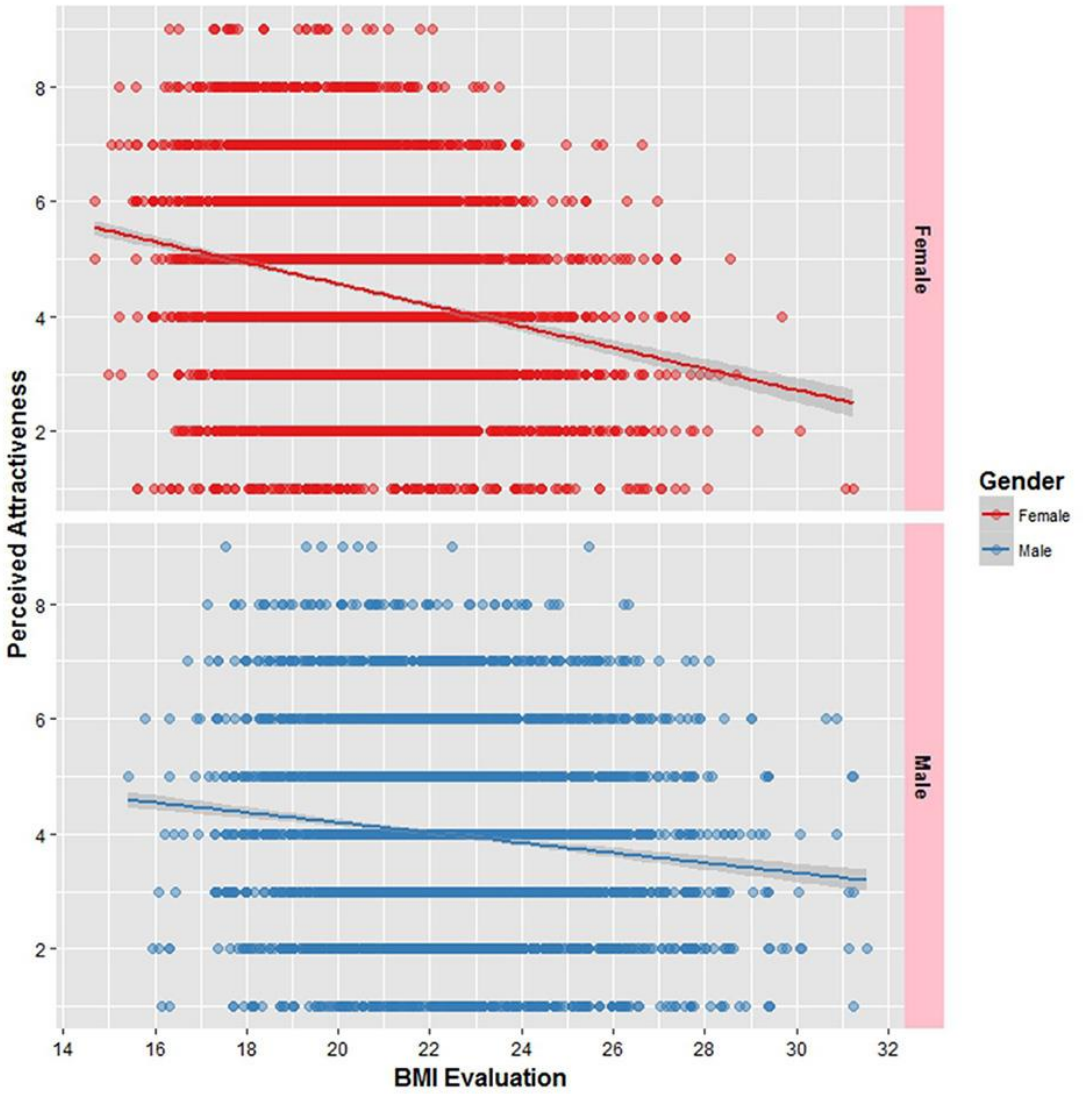

Figure 2. scatter plots between evaluated BMI and attractiveness judgement for men's photo (upper panel) and women photos (lower panel), together with regression line and 95% CI.

Table 1. Summary of participants' demographical information and physical traits

	Male(*N*=49)	Female(*N*=48)	*t*-value	*p*-value
Age (yrs)	23.10 (1.58)	22.17 (1.61)	2.87	.005
Education (yrs)	16.29 (1.43)	15.84 (1.43)	1.51	.134
Height (cm)	174.57 (5.34)	162.92 (5.64)	10.45	<.001
Weight (kilogram)	69.08 (13.97)	53.52 (6.15)	7.08	<.001
BMI	22.58 (3.87)	20.17 (2.08)	3.81	<.001
EDRWCQ	7.47 (1.73)	7.97 (1.95)	-1.36	0.18

Note. BMI, body mass index, was computed based on participants' self-reported height and weight; EDRWCQ, Eating-disorder-related weight-controlling behaviors.

Table 2. Equations for HLM analyses

Purpose: to test the suitability to use HLM for current data set
Level 1 Model: $Attractiveness_{ij} = \beta_{0j} + r_{ij}$ (Equation 1) Level 2 Model: $\beta_{0j} = \gamma_{00} + \mu_{0j}$ (Equation 2)
Purpose: to test influence of photo models' BMI and sex on attractiveness
Level 1 Model: $Attractiveness_{ij} = \beta_{0j} + \beta_{1j}*BMI + \beta_{2j}*PhotoSeX + \beta_{3j}* BMI*PhotoSex + r$ (Equation 3a) Level 2 model: $\beta_{0j} = \gamma_{00} + \mu_{0j}$ (Equation 4) $\beta_{1j} = \gamma_{10} + \mu_{1j}$ (Equation 5) $\beta_{2j} = \gamma_{20}$ (Equation 6) $\beta_{3j} = \gamma_{30} + \mu_{3j}$ (Equation 7)
Purpose: to test participants' willingness to be thin influence on the relationship between photo model's BMI and attractiveness evaluations
Level 1 Model: $Attractiveness_{ij} = \beta_{0j} + \beta_{1j}*BMI + \beta_{2j}*PhotoSeX + \beta_{3j}* BMI*PhotoSex + r$ (Equation 3a) Level 2 Model $\beta_{0j} = \gamma_{00} + \mu_{0j}$ (Equation 4) $\beta_{1j} = \gamma_{10} + \gamma_{11}\times$(Willingness to be thin) $+ \mu_1$ (Equation 8a) $\beta_{2j} = \gamma_{20}$ (Equation 6) $\beta_{3j} = \gamma_{30} + \mu_{3j}$ (Equation 7)

Table 3. Results from multilevel model of relations between attractiveness judgment and BMI evaluation of photo pictures moderated by personal willingness to be thin

	null model		random-coefficient regression model		slope-as-outcome model	
Coefficients	***Est.***	***S.E.***	***Est.***	***S.E.***	***Est.***	***S.E.***
Intercept (γ_{00})	4.2629*	0.1144	3.9988*	0.1160	4.0000*	0.1160
BMI (γ_{10})	-	-	-0.1055*	0.0165	-0.0940*	0.0166
Willingness to be thin (γ_{11})	-	-	-	-	-0.0081*	0.0028
PhotoSex (γ_{20})	-	-	0.5377*	0.0795	0.5375*	0.0793
BMI * PhotoSex (γ_{30})	-	-	-0.1379*	0.0227	-0.1375*	0.0227
Variance components	***Est.***	***S.E.***	***Est.***	***S.E.***	***Est.***	***S.E.***
Intercept ($\sigma^2_{\mu 0}$)	1.2544	-	1.2357	-	1.2380	-
BMI ($\sigma^2_{\mu 1}$)	-	-	0.0172	-	0.0169	-
BMI * PhotoSex ($\sigma^2_{\mu 3}$)	-	-	0.0319	-	0.0319	-
Residual	1.7629	-	1.5298	-	1.5298	-

Note. N = 11,489 data nested within 97 persons; *Est.*= estimated value, *S.E.*=standard error