CITY UNIVERSITY OF HONG KONG

The Moderating Role of Perfectionism in Appearance Comparison and Body Dissatisfaction in Female College Students

A Report Submitted to
Department of Applied Social Studies
in Partial Fulfillment of the Requirements for
the Bachelor of Social Sciences in Psychology

by

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Abstract

Objectives. In Thompson and his colleague’s (1999) Tripartite Influence Model, social comparison is one of the mediating factors between the social pressure to be thin and body dissatisfaction. Perfectionism has long been found to be an associated salient feature in eating disorder. But how perfectionism contributes to body image and eating problem has not been well investigated. In this study it is aimed to found the role of perfectionism in appearance social comparison process.

Methods. A 2 (high or low in perfectionism) x 2 (model vs. product image) factorial design was employed. 82 female reported perfectionism first, followed by the presentation of advertisement image, lastly they report body esteem, ideal and actual body shape, positive and negative affects. Eight of them were excluded from the analysis due to suspicion issue.

Results. No significant main effect of image type or image type x perfectionism interaction effect was found. Females with higher personal standard consistently report lower body dissatisfaction (weight concern, sexual attractiveness and actual-ideal body shape discrepancy) and positive mood. Personal standard have been found to interact with the type of image presented to influence participant’s positive affect. Only females high in personal standard experienced less positive affect after viewing the model image, comparing to viewing product only, while female low in personal standard response similarly in both condition.
Conclusion. The pattern is similar to the previous literature in a sense that perfectionism is correlated with body image or eating problems, but the role of perfectionism in development of eating problems is not clear. FMP scale may contain some subscales of perfectionism that is unrelated to the body image. The lower body dissatisfaction and better mood in females with higher personal standard might indicate that personal standard reflect the adaptive and positive aspect of perfectionism. In the present study, there is not enough evidence to fully explain the null result between two experiment conditions and only effect of brief exposure to the media was examined. In the future, study employing implicit measurement of self-evaluation and longitudinal studies are needed.
Acknowledgements

I would like to express my gratitude to my supervisor, Prof Cheng Sheung Tak. He gave kind guidance throughout the years, enormous assistance in implement of the study and many precious advices during the drafting of this dissertation.

And I would like to thanks Sammy Kin-Wing Cheng, PhD. of Kwai Chung Hospital for the approval and advice in the use of CFMP scale.
Thesis Submission Declaration Form

City University of Hong Kong
Department of Applied Social Studies

Thesis Submission Declaration Form

Student Name: Wong Kwok Leung

Student No.: 

Title of Thesis/Dissertation: Moderating role of perfectionism between appearance comparison and body dissatisfaction in female college students

Course Code: *SS4708 / SS5790

Programme: *BSSPSY / PGDP

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Prof. Cheng Sheung Tak

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Chapter 1: Introduction and Literature Review

Adolescents are commonly over-concerned about their own appearance, this concern about own appearance can result from a developmental hallmark of adolescence coined by Elkind (1967): imaginary audience. It is an immature thinking characterized by viewing oneself as the focus of attentions of other. However, nowadays this developmental hallmark is changing into a crisis for the adolescents to face. Recently, a worrying trend was reported that more and more college females feel dissatisfied about their weight and body shape (Crowther, Armey, Luce, Dalton, & Leahey, 2008). A popular trend of body dissatisfaction is also reported in China. Only about 40% of the children and adolescents feel satisfied with their body shape (Li, Hu, Ma, Wu, & Ma, 2005). This suggests that more and more females are at risk for eating disorder and the accompanying harm because body dissatisfaction is one of the major predictors of dieting and later eating problem (Stice, 2002). Stice, Killen, Hayward and Taylor (1998) had found that the similarity between full and subdiagnostic group in variables such as dietary restraint, emotionality, depressive and anxiety symptoms. With this great similarity between subdiagnostic group and real patients on these aspects, it implies that even mild body dissatisfaction might lead to aversive consequence on the young females. The impact of body dissatisfaction is getting more significant.

Literature Review

Body Dissatisfaction

It is widely believed that the social environment contributes much to body dissatisfaction. For example, some studies on the trend of media content can help explain the increase in body dissatisfaction among young women. The centerfold playmate model in the Playboy magazine has been becoming leaner from 1979 to 1999
(Sypeck, Gray, Etu, Ahrens, Mosimann, & Wiseman, 2006). While the models figure in
*Playboy* magazines only indicate the male preference of an ideal female figure, a similar
preference of a thinner women body figures was also held by the society across time.
There is a declining trend of the BMI of the winner of the Miss America Beauty Contest
from 1922 to 1999 (Rubinstein, & Caballero, 2000). It shows that the commonly held
standard of attractive figure is getting thinner and thinner, and so it made the young
female more dissatisfied with their own body shape. Thompson and his colleague (1999)
proposed the tripartite influence model, which claimed that body dissatisfaction is a
result of three social agents: i) the parent, ii) the peer and iii) the media. These three
agents can lead to body dissatisfaction in young women by i) exerting social pressure to
be thin, ii) teasing about body shape and iii) exposure of an attractive Female model.
They also proposed that the increasing frequency of social comparison of appearance
and internalization of the thin ideal standard mediate the relation between those three
sources of influence and the resulting body dissatisfaction. In the tripartite influence
model (Thompson et al, 1999), it was proposed that under the influence of parental and
peer pressure to be thin and media consumption, females would engage more in
appearance comparison with others, such as the peer or the model in media. This
increase in social comparison would then lead to later increase in body dissatisfaction.
And studies have supported the mediating role of social comparison in female college
student samples (van den Berg, Thompson, Brandon, & Coover, 2002), young
adolescents (Keery, van den Berg, & Thompson, 2004., Shroff, & Thompson, 2006,
Smolak,Murnen, & Thompson, 2005. ), Japanese female undergraduates (Yamamiya,
Shriff, & Thompson, 2008) , and also youth in China (Chen, Gao, & Jackson, 2007).
These are clear evidence to support the view that engaging in appearance comparison between oneself and surrounding others would lead to later body dissatisfaction.

Social comparison

Originally, Festinger (1954) speculated that human beings have a fundamental drive to evaluate one’s characteristic and ability. When there is no objective measurement of the character such as attractiveness and beauty, people will compare with others to obtain information about the standards as a reference to self-evaluation. In this view, upward comparison, which is comparing oneself with who are better off, would often bring a harmful effect on self-image. And downward comparison, which is comparing oneself with a person worse-off, will bring a more positive view on oneself. It implies that the selected target of comparison would substantially affect the construction of self-image.

Recently there is another view that the consequence of social comparison process does not necessarily follow the direction in Festinger’s (1954) prediction (Bunnk, Collins, Taylor, Van Yperen, & Daklof, 1990). In Bunnk et al’s (1990) studies, cancer patients experience positive mood after both upward and downward comparison with other patients. Factor besides the attribute of the target of comparison was found to affect the consequence of the comparison. Patients who believe they have control over their prognosis would experience more positive mood after these comparisons. Some positive effect is found on self-evaluation and affect of people who have experienced upward social comparison (Lockwood, & Kunda, 1997). In Studies by Lockwood and Kunda (1997), students as participants are shown stories about some successful superstars with excellent performances. Those participants feel inspired instead of
frustrated or threatened after reading other’s successful story when i) they perceive the stories as relevant to them, ii) the achievement is attainable by them and iii) they view the attribute in concern as plastic but not stable over the whole life. In summary, these suggest that upwards social comparison does not necessarily lead to threatening of the self-image. Besides, some other factors such as sense of control, sense of attainability would affect the outcome of social comparison.

As mentioned, appearance comparison would lead to body dissatisfaction, if the effect of attainability is considered, the situation might be even worse when the targets of comparison are the attractive models in the media, instead of the ordinary peer’s figures, since the figure of the models are often unattainable. This speculation is supported by the study of Leahey and Crowther (2008). In their study, participants were asked to write a daily record of appearance comparison encountered in daily life, the record include the target of comparison, the direction of comparison, affect, state appearance esteem and thoughts of dieting. It was found that upward comparison with peer, would bring more positive outcome than comparison with dissimilar others, such as the model on the media. So it is clear that the exposure to ultrathin models on the media is harmful to one’s appearance esteem.

Media

Media usage has been found to bring aversive impact on the body image of young female adults and adolescents. The impact of viewing an attractive model is studied in both experimental and correlational studies (Grabe, Ward, & Hyde, 2008). In a correlational study, Stice and colleague (1994) reported a positive relation between general media usage and eating disorder symptoms in female college students. Hofschire
and Greenberg, (2001) found that the effect of television viewing depends on the type of programme viewed. For example, watching more programme that frequently portray stereotypical ideal body shape would induce body dissatisfaction in both boys and girls. And watching music shows would be a threat to a girl’s body image. In general it was found that media usage would be associated with more body dissatisfaction, but no casual inference can be made. The results can be interpreted in either ways: i) the media directly affect body dissatisfaction, or ii) girl with greater body dissatisfaction would like to put more attention and time in the media to get more body shape related information. To have a better conclusion, experimental studies are needed. In Monro and Huon’s (2005) study, advertisement stimuli were manipulated in two dimensions: i) body relatedness (e.g clothes vs. banking service) and ii) presence of idealized body (presence vs. absence of model), the reported appearance anxiety in female college students was influenced by presence of model but not type of advertisement (body related vs. non-body related). This study clearly shows that watching an attractive model rather than the priming of one’s own body image merely would boost body dissatisfaction. In Fijian, which is relatively isolated from western culture and immune from the social pressure to be thin, measurement was taken just before and three years after the introduction of television. It was found that significantly more girls were categorized as high in Eating Attitude Test (EAT: Garner, Olmsted, Bohr, & Garfinkel, 1982) score, which is a measure or bulimic behavior, dieting and other symptoms of eating disorder. Besides, significantly more induced vomiting in young Fijian girls was also observed (Becker, Burwell, Gilman, Herzog, & Hamburg, 2002). This result implies the power of television viewing and western culture in shaping girls’ body shape. Garbe et al’s (2008) meta-analysis working on 77 experimental and correlational studies
about media exposure and body dissatisfaction showed a weak to moderate effect of media exposure on female’s body dissatisfaction, with mean effect size $ds = -.28$.

As the overall effect of viewing thin model was found to be weak, the effect of viewing attractive model in the advertisement may not be universal to all. The intensity of the impact of model viewing may be influenced by some individual differences. For example, it was found that female university undergraduate with higher baseline body dissatisfaction would experience a more aversive impact on body image after viewing advertisement with a fashion model, comparing to their body satisfied counterpart (Posavac, Posavac, & Posavac, 1998). While viewing attractive model is a threat to some women, it may become an encouragement for those who are already dieting. Female college student who were high in dietary restrain reported a higher appearance self-esteem (Joshi, Herman, & Polivy, 2004), thinner self-image and eat more cookies (Mills, Polivy, Herman, & Tiggemann, 2002) after viewing thin model, while the nonrestained eater do not response differently after being exposed to different advertisement. In Dittam and Howard’s (2004) study, a stepwise hierarchical multiple regression analysis was used and thin ideal internalization and social comparison tendency of the participants were found to be moderating the effect of exposure to advertisement on body dissatisfaction. In the present study, perfectionism is proposed as a moderating factor between the media exposure and body dissatisfaction.

Perfectionism

Perfectionism has long been reported to be a common salient trait in people with eating disorders. When compared with healthy control groups, a higher level of perfectionism is found in Anorexic patients (Halmi et al, 2000), Bulimic patients
(Lilenfeld et al, 2000) and recovered patients of both Anorexia Nervosa and Bulimia Nervosa (Kaye et al, 1998, Sutandar-Pinnock, Woodside, Carter, Olmsted, & Kaplan, 2003). As the perfectionism in recovered patients remains high, it shows that perfectionism is a stable personality trait rather than a plastic feature under the influence of the active phase of the illness. The premorbid level of perfectionism was found to predict eating disorder. In a prospective study by Tyrka, Waldron, Graber and Brook-Gunn (2002), 134 young females were followed up starting from age 12 to age 24, the early perfectionism level was predictive to the later onset in young adulthood of Anorexia Nervosa syndrome but not Bulimia Nervosa syndrome. From these findings, perfectionism seems to be a risk factor of eating disorder. While the association between perfectionism and eating problem is clear and validated, there is a lack of a well-established model to explain the role of perfectionism in either development or maintenance of eating disorder.

In an attempt to validate Thompson’s (1999) proposed Tripartite Influence Model, Van den Berg and colleague (2002) found perfectionism was associated with body comparison. Similar findings have been reported by Schutz, Patxton, and Wertheim (2002), by using stepwise hierarchical multiple regression analysis. Perfectionism accounted for unique variance above the effect of importance of thinness, sociocultural internalization, thin culture among peer, etc. A possible mechanism to explain these findings was that those who set such a high standard for themselves would have an excessive need to validation of the self and their achievement. Therefore social comparison would be a form of activity that can provide information and feedback about how well they are doing, which perfectionists greatly need (Bardone-Cone et al, 2007). While the perfectionism increases the tendency to engage in social comparison, it might
also make people feel worse afterwards. As perfectionist is characterized by self-defeating thinking, described by Adderholdt-Eillott (1987) as telescopic thinking, they may tend to magnify the unmet goals and at the same time devalue their own achievement. When facing the unrealistically thin ideal in the advertisement, it is reasonable to speculate that perfectionists will magnify the significance of the beauty standard and so be more distressed about it. By increasing the tendency to compare and the negative consequence of upward comparison, perfectionist feels worse when facing the ideally thin and attractive model on the media.

Hypothesis

Hypothesis 1:

Young female adult would feel significantly less satisfied with their body shape and experience worse mood after viewing advertisement with a thin model, than viewing advertisement with product only.

Hypothesis 2:

There is interaction effect between type of image viewed and perfectionism on body satisfaction and mood in the effect of model viewing would be stronger in people with higher perfectionism.
Chapter 2: Methodology

Participants

99 female university students were approached in different universities in Hong Kong. 82 of them returned the questionnaires and there was no associated difference in return rate in the two conditions ($\chi^2=0.271$, $p=.603$). All of them were Chinese. Their age ranged from 19 to 25, (mean = 21.67 years, SD=1.24) At the end of the experiment, all participants were asked if they were aware of the research hypothesis. Eight participants are excluded since they were not blind to the research hypothesis. The final sample consisted of 74 female students. All provided informed consent to participation.

Procedure

A convenient sampling method was employed. Participants were approached and given the questionnaires in the classroom after class. Participants were told that this was an investigation of commercial advertising strategies. Participants were told to finish the questionnaires in one sitting. Both questionnaires with model and product-only image were mixed into the same pile of questionnaires in random order. Therefore the participants were randomly assigned to the model condition and product condition. In both conditions, participants were shown 8 images of magazine advertisement. There were two sets of image. Participants in model condition were shown pictures with attractive and thin female model. Those in control condition were shown the advertisements showing product only.

Material
Stimuli

In a pilot study, the advertisements were selected from international and local fashion magazines which are popular among young women. Image were selected by the following criteria: i) most of the whole body of the model was shown in the image, ii) there was only one model in the advertisement, iii) the model was not covered by any other text, trademark or other product and iv) the advertisement was in color. After the first round of selection, 34 model images and 33 product images were selected. 15 female college students rated the images within a seven point liker-type scale on: i) the extent to which the advertisements could draw your attention, ii) the overall attractiveness of the picture, iii) the attractiveness of the model in the image, iv) the thinness of the model. 8 model pictures were then selected, which received higher thinness rating than the remaining model images ($t = 5.146 \ p < .000 \ df = 32$). Similar rating procedure has been done on the product image by the same group of female students. Eight matched product pictures were selected based on rating of two criteria: i) the extent to which the advertisements could draw your attention, ii) the overall attractiveness of the picture. There is no significant difference between score on these two items (Attention, $t = 0.937 \ p = .365 \ df=14$, Overall attractiveness $t=.665 \ p=.517 \ df=14$).

In order to be consistent with the claimed aim of study (advertising strategy) and also to increase participant’s processing of the stimuli, during the presentation of the image, participants were asked some questions about the picture being presented. Participants were also asked to guess whether it is a real advertisement or not. In addition, participants were asked two open questions: i) the type of product being promoted in the picture and ii) any feature of the model or product can arouse their
interest of the product. Lastly, Part of the questions is similar to those in the pilot study (attention, overall attractiveness and model/product attractiveness). Response in these liker-type questions that is deviant for more than 3 standard deviations from the mean is excluded. In this study all responses fall within this range. The researcher has checked the answer of the written questions to see if they are answering the questions without paying attention. In this study all respondents have passed this manipulation check.

Perfectionism

The Frost Multidimensional Perfectionism Scale (Frost, Marten, Lahart, & Rosenblate, 1990) was used in this study to measure the individual differences in different aspect (e.g cognitive, behavioral or social) of perfectionism of the participants. It has 35 items rated on a 5 point Likert scale, (5 = totally agree and 1 = totally disagree). The scale is composed of six subscale: i) Concern Over Mistake (CM), ii) Personal Standard (PS), iii) Parental Expectation (PE), iv) Parental Criticism (PC), v)Doubts about Action (DA) and vi)Organization. In this study, a Chinese version of Frost Multidimensional Perfectionism Scale (CFMP) was used (Cheng, Chong, & Wong, 1999). In the present study, the total score of this scale was computed as the overall perfectionism score. A higher score mean being higher perfectionism. In this study, the scale demonstrate good internal reliability in the present sample ($\alpha = .872$). Among the subscales, the internal reliabilities are also good (PS: $\alpha = .814$, CM: $\alpha = .798$, PE: $\alpha = .818$, PC: $\alpha = .746$, D: $\alpha = .655$, O: $\alpha = .842$)
Body Satisfaction

The Body Esteem Scale (BES) (Franzoi & Shields, 1984) was used in this study. There are 35 items in this scale, with each item containing a single term about different body part or body functioning. The items were rated on a 5-point Likert scale, with higher score means highest body satisfaction (5 = very satisfied, 1 = very dissatisfied). The factor structure of the scale is different for male and female. For female, this scale consists of three subscale called “Weight Concern” (WC), “Sexual Attractiveness” (SA) and “Physical Condition” (PC). The Weight Concern subscale is mainly about satisfaction with body fatness and body shape. In the Sexual Attractiveness subscale, items were mainly concerned with whether people are satisfied with their facial feature and sexual functioning. The Physical Condition subscale is mainly about the physical functioning of the body such as health and energy level. This study aims to investigate body dissatisfaction, and facial feature and weight concern are more important factors for beauty standard in Hong Kong college women, when comparing with the western culture (Lee, Leung, Lee, Yu, & Leung, 1995). Therefore in this study both weight concern and sexual attractiveness is of research interest. In this study, this scale was first translated into Chinese by the author and it was then back translated into English by another psychology major student with proficient English. And both scale have a good internal consistency in this study (WC $\alpha= .864$, & SA $\alpha= .714$).

Body image

The Figure Rating Scale (Stunkard, Sorensen, & Schulsinger, 1980) was used in order to measure the participant’s perception of their body shape. It is a measurement with nine images of different female body shapes are arranged horizontally, ranging
from malnourished girl on the left end (score 1), to obese female on the right end (score 9). Between each image, there was a mid-point added as 1.5 to 8.5. Participants were asked to mark on the numbers that best describe their ideal and current body shape. The discrepancy score were obtained by subtracting the ideal body shape score from the actual body shape score. A positive score would indicate a heavier current body shape than ideal body shape. Therefore, a higher discrepancy score would imply a stronger desire to have a slimmer body figure.

Mood

The Positive Affect Negative Affect Scale (PANAS) (Watson, Clark, & Tellegen, 1988) was used in this study. It include 20 item and each item is a single descriptive word, with a 5-point Likert-type scale which higher score means a greater extend the participant is experiencing the mood at that moment. This scale consist of two subscales “Positive affect” (PA) and “Negative Affect” (NA), which contain 10 items each. As its name, the Positive Affect subscale measure different mood which are generally considered as positive (such as joy or strong). And the otherwise is also true in Negative Affect subscale. In this study, this scale was first translated into Chinese by the author and it was then back translated into English by another psychology major student with proficient English. In this study, both subscale have a good internal consistency (PA α= .799, & NA α= .888).

Statistical Analysis

Independent t-tests and chi-square test were employed to investigate if there were any difference in demographic data and perfectionism score in the two conditions.
Correlation between the five dependent variables and demographic items (e.g. income, age and Body Mass Index) were examined to see if any demographic variable need to be adjusted in the Analysis of Variance. The participants will be divided into two groups by the median score of Chinese Frost Multidimensional Scale. Finally, a 2 (High or Low in Perfectionism) x (2) (model images vs. product images) two-way Analysis of Variance (ANOVA) will be carried out.
Chapter 3: Results

Preliminary analysis

Independent t-tests and chi-square tests were first used to examine if there were systematic differences in the background characteristics and major variables. In this study, no significant group difference was found for age, $t = 0.155$, $ns.$, pretest body mass index $t = 0.529$, $ns.$, family income $t = 0.296$, $ns.$, and perfectionism, $t = 0.470$ $ns$. The means and standard deviations of these variables are reported in Table 1. In Table 2, we can see that there was no signification association between relationship status and experimental conditions, $\chi^2 = 1.098$ $ns$.

Table 1
Sample Characteristic in Both Conditions (Model vs. Product)

<table>
<thead>
<tr>
<th></th>
<th>Model (N=38)</th>
<th>Product (N=36)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>SD</td>
<td>Mean</td>
</tr>
<tr>
<td>Age</td>
<td>21.59</td>
<td>1.34</td>
<td>21.64</td>
</tr>
<tr>
<td>BMI$^a$</td>
<td>19.89</td>
<td>2.12</td>
<td>19.57</td>
</tr>
<tr>
<td>Family income$^b$</td>
<td>18088</td>
<td>13749</td>
<td>17214</td>
</tr>
<tr>
<td>CFMP$^c$</td>
<td>2.94</td>
<td>0.40</td>
<td>2.90</td>
</tr>
</tbody>
</table>

Note. $N = 74$,
*all $p > .05$

$^a$ Body Mass Index (Weight(KG)/ Height$^2$ (M))
$^b$ total Family monthly income,
$^c$ Chinese version of Frost Multidimensional Perfectionism Scale

Correlations among different variables are reported in Table 3. A strong negative correlation was found between weight concern and the discrepancy score ($r = -0.615$, $p < .001$). It shows that the fatter participant viewed themselves than the ideal body shape, the less they felt satisfied with their own body fatness. There is no significant correlation
Table 2
*Relationship Status in Both Conditions (Model vs. Product)*

<table>
<thead>
<tr>
<th></th>
<th>Product</th>
<th>Model</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single</td>
<td>47.2%</td>
<td>59.5%</td>
</tr>
<tr>
<td>Having a boy friend</td>
<td>52.8%</td>
<td>40.5%</td>
</tr>
</tbody>
</table>

*Note.* N=82, $\chi^2=1.098$, $p=.295$ ns.

between age and other variables. Since age was not associated with the dependent variables, it would not be put into consideration in the following analysis. Lastly body mass index was found to be moderately negatively correlated with weight concern scale ($r = -.440$, $p < .001$) and moderately positively correlated with the discrepancy score ($r = .449$, $p < .001$). Therefore in the following analysis, body mass index will be controlled as covariate in the analysis of these variables.

Table 3
*Correlations Matrix Among Variables*

<table>
<thead>
<tr>
<th></th>
<th>BMI</th>
<th>Age</th>
<th>FMP</th>
<th>PA</th>
<th>NA</th>
<th>WC</th>
<th>SA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>-.012</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Perfectionism (FMP)</td>
<td>-.069</td>
<td>.039</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Positive Affect (PA)</td>
<td>.008</td>
<td>.227</td>
<td>.128</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Negative Affect (NA)</td>
<td>.010</td>
<td>.046</td>
<td>.246*</td>
<td>-.039</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Weight Concern (WC)*</td>
<td>-.440***</td>
<td>-.039</td>
<td>.152</td>
<td>.114</td>
<td>.103</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sexual Attractiveness (SA)*</td>
<td>-.056</td>
<td>-.042</td>
<td>-.037</td>
<td>.186</td>
<td>-.166</td>
<td>.448***</td>
<td></td>
</tr>
<tr>
<td>Actual-Ideal Discrepancy b</td>
<td>.449***</td>
<td>.157</td>
<td>-.248</td>
<td>-.055</td>
<td>.0381</td>
<td>-.615***</td>
<td>-.202</td>
</tr>
</tbody>
</table>

*Note.* *p < .05, ***p < .001, N= 74

*a* Higher score means better satisfaction

*b* Positive score means actual body shape fatter than ideal body shape
Hypothesis testing

The hypothesis one was tested by input weight concern, sexual attractiveness and actual-ideal discrepancy as dependent variables with body mass index controlled. An univariate ANOVA was conducted. No significant main effect of image type was found in weight concern \( F(1,70)=0.121, \ ns. \), sexual attractiveness \( F(1,70)=0.341, \ ns. \) and actual-ideal discrepancy score \( F(1,70)=0.331, \ ns. \). The first hypothesis was not supported.

Hypothesis two was then tested by entering positive affect and negative affect as dependent variables. Again no significant main effect of image type was found in positive affect \( F(1,70)=1.679, \ ns. \) and negative affect \( F(1,70)=1.782, \ ns. \). The second hypothesis was also rejected.

Table 4
Estimated Marginal Mean and Standard Error of Dependent Variables In Different Condition

<table>
<thead>
<tr>
<th>Product</th>
<th>Low Perfectionism (N=17)</th>
<th>High Perfectionism (N=19)</th>
<th>Low Perfectionism (N=15)</th>
<th>High Perfectionism (N=23)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>SE</td>
<td>M</td>
<td>SE</td>
</tr>
<tr>
<td>Weight Concern</td>
<td>26.51</td>
<td>1.61</td>
<td>28.09</td>
<td>1.39</td>
</tr>
<tr>
<td>Sexual Attractiveness</td>
<td>42.64</td>
<td>1.41</td>
<td>41.43</td>
<td>1.22</td>
</tr>
<tr>
<td>Actual-Ideal Discrepancy</td>
<td>0.52</td>
<td>0.18</td>
<td>0.29</td>
<td>0.16</td>
</tr>
<tr>
<td>Positive Affect</td>
<td>26.66</td>
<td>1.54</td>
<td>29.40</td>
<td>1.33</td>
</tr>
<tr>
<td>Negative Affect</td>
<td>19.33</td>
<td>2.10</td>
<td>23.87</td>
<td>1.82</td>
</tr>
</tbody>
</table>

*Note.* N=78 all \( p>.05 \)

* \(^{a}\)Higher score means better satisfaction

* \(^{b}\)positive score means actual body shape fatter than ideal body shape
Third, the perfectionism x image type interaction effect was not significant on weight concern $F(1,70)=0.263$, ns., sexual attractiveness $F(1,70)=0.658$, ns., actual-ideal discrepancy score $F(1,70)=0.004$, ns., positive affect $F(1,70)=2.450$, ns. and negative affect $F(1,70)=0.493$, ns. For further detail, the mean and standard deviation of the five dependent variables were reported in the Table 4. In general all three hypotheses were not supported and the effect of advertisement viewing did not exist.

Additional Analysis

The Frost Multidimensional Perfectionism Scale measures different aspects of perfectionism, such as striving towards a higher standard (personal standard subscale, PS), extreme negative response towards mistake (concern over mistake subscale, CM), hesitation about own action (doubt about action subscale, D), etc. Among these subscales, the personal standard would be the best indicator of the telescopic thinking of perfectionists (Adderholdt-Eillott, 1987) mentioned before, which reflect individual’s tendency to set high standard for themselves. Therefore the Personal Standard subscale of the Frost Multidimensional Perfectionism Scale was considered in the following analysis. The sample was again divided into two groups by the median score of personal standard subscale in stead of the total score of Frost Multidimensional Perfectionism Scale. The second round of 2 (personal standard) x 2 (image type) after controlling BMI, ANOVA revealed a consistent main effect of personal standard, with the exception of negative affect. (Weight Concern: $F (1,70)=4.96 \ p<.05$ partial $\eta^2 = .075$, Sexual Attractiveness: $F (1,70)=5.35 \ p<.05$, partial $\eta^2 = .071$. Discrepancy Score: $F (1,70)=9.43 \ p<.01$ partial $\eta^2 = .013$, Positive Affect: $F (1,70)=4.37 \ p<.05$, partial $\eta^2 = .060$). According to Cohen’s (1988) guideline these effect sizes are small to medium.
Females with high personal standard consistently reported better satisfaction with their body and a better mood. They reported more satisfaction with their weight (estimated marginal mean= 28.97, SE=0.918) than the low personal standard group (mean=25.75, SE=1.106). Females with high personal standard reported more satisfaction with their sexual attractiveness (mean=43.25, SE=0.776) than those with low personal standard (mean=40.52, SE=0.887). Less discrepancy between actual and ideal body shape were found in female with high personal standard (mean=0.15, SE=0.10) than those who have a lower personal standard (mean=0.63, SE=0.12). Lastly Female with higher personal standard reported more positive mood (mean=28.21, SE=0.89) than the lower personal standard group (mean=25.41, SE=1.01) (see Table 5).

Table 5. Estimated Marginal Mean of Body Image Variables and Positive Affect in High and Low Personal Standard Group

<table>
<thead>
<tr>
<th></th>
<th>High Personal Standard</th>
<th>Low Personal Standard</th>
<th>F</th>
<th>partial $\eta^2$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weight Concern</td>
<td>28.97 (SE=0.92, N=39)</td>
<td>25.75 (SE=1.11, N=27)</td>
<td>4.96*</td>
<td>.075</td>
</tr>
<tr>
<td>Sexual Attractiveness</td>
<td>43.25 (SE=0.78, N=42)</td>
<td>40.52 (SE=0.89, N=32)</td>
<td>5.35*</td>
<td>.071</td>
</tr>
<tr>
<td>Actual-Ideal Discrepancy</td>
<td>0.15 (SE=0.10, N=39)</td>
<td>0.63 (SE=0.12, N=27)</td>
<td>9.43**</td>
<td>.013</td>
</tr>
<tr>
<td>Positive Affect</td>
<td>28.21 (SE=0.89, N=41)</td>
<td>25.41 (SE=1.01, N=32)</td>
<td>4.37*</td>
<td>.060</td>
</tr>
</tbody>
</table>

*Note* *p*<.05 **p**<.01

*a* Higher score means better satisfaction

*b* positive score means actual body shape fatter than ideal body shape

*c* Due to incomplete data on BMI

The interaction effect on weight concern fade when body mass index are entered in the analysis as covariate $F (1, 70) =2.306$, *ns.* (BMI: $F(1,70) =12.777$, *p*<.001).
Besides, an interaction effect on positive affect was found significant, \(F (1, 70) = 3.43, p<.05, \text{partial } \eta^2 = .057\). After viewing the product images participants with high personal standard would experience more positive affect (mean=30.76 SD=4.53) than those with lower personal standard (mean= 25.32, SD=4.53). But in model image condition, the means is similar between high personal standard group (mean= 26.79 SD =6.72) and low in personal standard group (mean= 26.00 SD=5.81) (See also Figure 1). No significant effect was found on negative affect.

![Figure 1](image.png)

*Figure 1.* Positive affect as a function of image type and personal standard with error indicate 95% confidence interval.
Chapter 4: Discussion and Conclusions

This study aims at investigating the role of perfectionism in the effect of social comparison process on body satisfaction. All hypotheses have been rejected and no significant image type main effect or image type x perfectionism effect was found. In addition, body image and positive affect were consistently affected by personal standard, instead of total perfectionism score. Female with higher personal standard reported better body satisfaction, less discrepancy between ideal and actual body shape and more positive mood. An interaction was found that female with higher personal standard experience more positive mood only when model was absent in the picture.

Insignificant Image type main effect

The first hypothesis was rejected, among the five dependent variables (weight concern, sexual attractiveness, discrepancy score, positive affect and negative affect), no significant image type main effect was found. This means that the self-evaluation of the participants was rather intact during these upwards social comparisons with the attractive model. In Wilson and Brekke’s (1991) correctional model, sometimes our unconscious or uncontrollable thought and feeling may make us suffer. When people experience such unwanted consequence of automatic process (or mental contamination in Wilson and Brekks’s words), they employ different strategies to correct the aversive effect. Gilbert and colleague (1995) have found social comparison occurred even at the time social comparison was irrelevant to self-evaluation. This finding suggested that social comparison is an automatic process that occurs frequently regardless of the context rather than a procedure to obtain information for self-evaluation, as Festinger (1954) suggested. Besides, some defense mechanism (or correction mechanism) was
found to occur after unwanted social comparison (Tesser, 1988). In this sense, social comparison with the model is automatic and uncontrollable, but the young women can engage in defense mechanisms that impede this unpleasant feeling, and maintain a good explicit self-evaluation. For example, after priming of negative aspect about oneself, female students would rate other as less attractive, when compared to those who were positively primed (Schwinghammer, Stapel, & Blanton, 2006). Consistent with the present study, similar findings of unchanged explicit self-evaluation after viewing different advertisement have been reported. Gurari and colleague (2006) revealed that no image type effect on global self-esteem and body image measurement. Beside the nil finding of explicit self-report after undesirable social comparison. It is more important to note that after aversive social comparison, peoples would experience worse mood and this aversive effect fade out as time goes by. In Gilbert et al’s (1995) study, the performance of a confederate on a different task from what participant had done can influence their mood but not their self-evaluation, and these effect on mood fade out at the end of experiment. This healing effect of time on mood may indicate the presence of correction mechanism. Moreover, the deliberate correction effort can not compensate the impact made on implicit self-evaluation. Research using Implicit Association Test (IAT: Greenwald, McGhee, & Schwartz, 1998) or similar procedure found that after comparison with an attractive model would weaken the association between self and femininity (Häfner, Jagsch, Kund, Mager, Pereira, & Zimmermann, 2008) or attractiveness but not intelligence or general positivity (Gurari, et al, 2006). In addition, compared to the implicit self-evaluation, the implicit self-evaluation has a stronger relationship with the non-verbal behavior. Spalding and Hardin (1999) found more non-verbal anxiety during interviews with a self-relevant topic in individual with a lower
implicit self-esteem, while the explicit report of self-handicapping was associated with explicit measurement of self-esteem. Lastly, female who watched attractive model image would eat less junk food afterward (Gurai, et al, 2006).

In this study, there was no image type effect on the three body image measurement (weight concern, sexual attractiveness and discrepancy between actual and ideal body shape). It is speculated that the threat on explicit self-evaluation by the automatic upward social comparison has been compensated by the correctional effort. After the correction, participants report their body image and mood as if they have not engaged in the appearance comparison. Therefore no difference of body image and mood between two conditions was found. The result also showed that females with higher personal standard were generally better off. They consistently report better body satisfaction and mood in both conditions than female with lower personal standard, with the exception that positive affect drop and approach the level of that of participants with lower personal standard. This suggests that they might have engaged in correction process after viewing the model as their explicit self-evaluation is the same across the two conditions while only the positive affect relatively dropped in the model condition. However, this interpretation remains speculative and can not be well confirmed in the present study, further evidence is needed by the future research.

Non-significant interaction effect

The third hypothesis was rejected, since the interaction effects in general were found to be insignificant, neither difference in perfectionism nor personal standard would moderate the consequence of upward social comparison. Meanwhile the result showed clearly that higher personal standard would bring more body satisfactions. In
this research perfectionism is found to correlate with eating and body image problem while the role of perfectionism in the development of body dissatisfaction is unclear. This pattern is consistent with the literature. In the literature about perfectionism and eating problem, higher perfectionism was found to be a common feature in females with eating problems. However, the question regarding how and what perfectionism contributes to the development or maintenance of the eating problems remains unclear. This is also true in the present study, a clear relationship between personal standard and body image was found, but the perfectionism or personal standard seemed not to be involved in the appearance comparison process.

Personal Standard

No significant effect has been found when the total score of FMP is entered as factor in ANOVA. It was found that in the majority (60%) of the literature of body image, the measurement of perfectionism is dominated by a unidimensional measurement of perfectionism: the perfectionism subscale of Eating Disorder Inventory (EDI-P) (Bardone-Cone, et al, 2007, EDI: Garner, Olmsted, & Polivy, 1983). The multidimensional measurement of perfectionism constructed later may contain areas which have not been covered in the previous literature. For example, examination of the content of EDI perfectionism subscale items would show that it cover just two subscales of FMP: i) one’s own striving towards a higher standard and ii) social pressure for the individual to struggle for better achievement, which are similar to Personal Standard(PS) and Parental expectation(PE) subscales in FMP. While the relationships between EDI perfectionism scale and body image or eating problem have been well-established, the role of dimensions other than PS and PE in the FMP is rather less clear. In the present
study, the result showed that the personal standard is a better predictor of body image than the total FMP score, which might include some irrelevant factors.

Finally, in this study, it was also found that people with higher personal standard would have a better body satisfaction, less actual-ideal body image discrepancy and more positive mood. In the past, literature has kept emphasizing the pathological aspect of perfectionism, such as the striving for an unrealistic goal, and it is generally considered as maladaptive. However, after the multidimensional measurements of perfectionism were created, there is an emerging view that perfectionism consists of two factors differentiating the adaptive and maladaptive aspect of perfectionism. In Hamachek’s (1978) conceptualization, perfectionism is differentiated into neurotic perfectionism (fear of fail) and normal perfectionism (striving for satisfaction). In Slade and Owens’s (1998) words, similar concepts have been coined as positive perfectionism and negative perfectionism which are correspondingly originated from history of positive reinforcement and negative reinforcement of the achievement. In positive perfectionism the core motive to strive for achieve is “desire to success” and that of negative perfectionism would be “fear of failure” (Slade, & Owens, 1998 pp.378). Positive Perfectionists would be characterized by approach behavioral pattern and Negative Perfectionists are characterized by avoidance behavior. In the emotional aspect, they proposed that positive perfectionists were immune from the extreme distress as a result of failure. On the other hand, negative perfectionist’s experiences of success can not ease their worry about the future failure. Therefore positive perfectionism is correlated with satisfaction and pleasure, and negative perfectionism is correlated with dissatisfaction and anxiety. This view has been supported by the finding that positive aspect of perfectionism is correlated with self-esteem (Ashby, & Rice, 2002) and
satisfaction with life (Bergman, Nyland, & Burns, 2007). As personal standard subscale in FMP has been considered as positive perfectionism by Slade and Owens (1998), it is suggested that in the present study, the personal standard score may reflect the adaptive and positive facet of perfectionism, which lead individual to experience more positive mood and have a better body image.

Limitations

In this study, the very first limitation is that although participants were told to finish the questionnaire in one sitting, participants were not totally free from interference, because the study was not carried out in an isolated experiment laboratory. Such interferences might prevent the participants from experiencing the full impact of presented stimuli. For example, participant might receive a phone call when she has read four of the images. After the phone call, and before the participant to go on to the remaining four pictures, the effect of the first four images may have already faded. Therefore the interference may reduce the impact of model viewing reported in measurement.

Besides, the generalizability of the present study to population other than female college students is expected to be low, because it is reasonable to expect a great heterogeneity between the beauty standard in the mind of young working female, college students, early and late adolescents. The media would target these populations differently. Therefore the advertisement presented to them in their daily life would be different, models might be presented in a different style. Young adolescents may react totally different from the sample in the present study.
Lastly, as mentioned before, in the present study, the relationship that under investigation was brief and short-lived in nature. Therefore, long term effect of repeated chronic exposure to the media can not be examined in this study.

Future Studies

In the present study it is suggested that young women engage correctional process. In order to investigate such process, it will be clear to include some measurement that could measure implicit self-evaluation, such as the Implicit Association Test. Besides, in this study, the stimuli were mainly the popular advertisement in the western society, while research comparing the effect of viewing advertisement in local popular magazine and the international famous one is needed.

As mentioned before only the effect of brief exposure to media is investigated in the present study, while the long term effect on chronic exposure of the model on media is not addressed in this study. Besides, the relation between personal standard and body image found in the present study was correlational in nature. Longitudinal study is needed in the future to i) investigate the long term effect of chronic exposure to media and ii) examine more clearly on the causality between body image and personal standard.

Conclusions

In this study, it was shown that the effect of viewing attractive model does not exist. Besides, interaction was not significant in general. Personal standards appeared to be a better predictor of body image and mood than the total score of the Frost Multidimensional Perfectionism Scale. Participants with higher standard would general more satisfied with their body, and experience mood positive mood. The pattern is similar to the previous literature in a sense that perfectionism is correlated with body image or eating problems, but the role of perfectionism in development of eating
problems is not clear. In the present study, it is not enough evidence to confirm the correction hypothesis and only effect of brief exposure to the media was examined. In the future, study employing implicit measurement of self-evaluation and longitudinal studies are needed.


*Psychological Bulletin, 134, 460-476.*


Appendix A : Consent form

參與研究同意書

你好，我是香港城市大學心理學系三年級生，現正進行一項有關商業廣告的研究。於研究過程中你有權利於任何時間中斷或停止研究的進行。研究過程中並不會紀錄任何足以辨識個人身份的資料。研究者對你所提供之資料將會絕對保密。問卷中所有的資料，只有研究者、指導教授，方可研究中使用，沒有其他用途。基於商業理由，請閣下將問卷內容保密，不可向第三者透露。如對問卷內容有任何問題，歡迎聯絡研究者。

如對以上內容了解並明白一切細節，請於以下適當位置簽署

參與者簽名：______________  問卷填寫日期：______________

研究者姓名：黃國良（Keith Wong）
請細心閱讀以下的句子，之後圈上你對那句子的認同程度。
（十分不同意）1 . . . 3 . . . 5（十分同意）

| 1 | 我父母為我定下很高的標準。 | 1 | 2 | 3 | 4 | 5 |
| 2 | (做事要有)系統/條理對我是十分重要的。 | 1 | 2 | 3 | 4 | 5 |
| 3 | 孩童時，我因做事欠缺完美而受罰。 | 1 | 2 | 3 | 4 | 5 |
| 4 | 若我不為自己定下最高的標準，我很可能淪為次等的人。 | 1 | 2 | 3 | 4 | 5 |
| 5 | 我父母從不嘗試去了解我的過錯。 | 1 | 2 | 3 | 4 | 5 |
| 6 | 做每件事我都要完全勝任稱職，這對我是重要的。 | 1 | 2 | 3 | 4 | 5 |
| 7 | 我是個整潔的人。 | 1 | 2 | 3 | 4 | 5 |
| 8 | 我嘗試成為一個有條理的人。 | 1 | 2 | 3 | 4 | 5 |
| 9 | 若我在工作/學校中失敗，我就是個失敗的人。 | 1 | 2 | 3 | 4 | 5 |
| 10 | 當我犯錯時，我應當傷心沮喪。 | 1 | 2 | 3 | 4 | 5 |
| 11 | 我父母要求我在每件事上都是(做到)最好的。 | 1 | 2 | 3 | 4 | 5 |
| 12 | 比起大多數人，我定下更高的目標。 | 1 | 2 | 3 | 4 | 5 |
| 13 | 若有人在工作/學校裡做事比我好，我就覺得我是失敗的。 | 1 | 2 | 3 | 4 | 5 |
| 14 | 若我有部份的失敗，我就感到自己差到像個完全的失敗者。 | 1 | 2 | 3 | 4 | 5 |
| 15 | 在我的家庭，只有出色的表现才算夠好。 | 1 | 2 | 3 | 4 | 5 |
| 16 | 專注我的能力去達到一個目標，這是我做得十分好的。 | 1 | 2 | 3 | 4 | 5 |
| 17 | 就算我十分小心做事情，我常感覺做得不太正確。 | 1 | 2 | 3 | 4 | 5 |
| 18 | 我厭惡做事不夠十全十美。 | 1 | 2 | 3 | 4 | 5 |
請細心閱讀以下的句子，之後圈上你對那句子的認同程度。
（十分不同意）1...3...5（十分同意）

<table>
<thead>
<tr>
<th></th>
<th>句子</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>19</td>
<td>我有極高的目標。</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>20</td>
<td>我父母期望我有超卓優秀的表現。</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>21</td>
<td>若我犯錯，人們很可能會輕看我。</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>22</td>
<td>我從不覺得我能夠達到我父母的期望。</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>23</td>
<td>若我不做到與其他人一樣的好,就說明我是個低劣的人。</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>24</td>
<td>比起我，其他人似乎接受他們自己較低的標準。</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>25</td>
<td>如果我不每時每刻做得好，人們便不會尊重我。</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>26</td>
<td>比起我，我父母對我的將來經常有較高的期望。</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>27</td>
<td>我盡力成為一個整潔的人。</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>28</td>
<td>對我日常所做的鎖碎事情我都抱有遲疑。</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>29</td>
<td>整潔對我來說是十分重要的。</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>30</td>
<td>比起大多數人，我要求自己在每天的工作中，有更好的表現。</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>31</td>
<td>我是個有條理的人。</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>32</td>
<td>我的工作進度傾向緩慢，因為我常重覆那些工作</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>33</td>
<td>我需要較長的時間才可把事情做好。</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>34</td>
<td>我犯錯越少，喜愛我的人就越多。</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>35</td>
<td>我從不覺得我能夠達到我父母的標準。</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
乙部份
以下的部份含有一些圖片，當中的圖片有部分是廣告，另外的是從時裝雜誌的內文中抽取的。
請圈起你認為該圖的種類（廣告或雜誌內文），並回答之後的問題。

<table>
<thead>
<tr>
<th></th>
<th>這幅圖片是</th>
<th>廣告</th>
<th>雜誌內文</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>這幅圖片能有效捕捉我的注意力</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>這幅圖片整體很有吸引力</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>這幅圖片的模特兒的外貌很吸引</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>請寫下這幅圖片所宣傳的產品種類：</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>請寫下這個廣告的模特兒能有效提升你對貨品的興趣的地方：</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
以下會列出一系列不同的身體部份及身體機能，請寫出你對你自己那一身體部份的滿意程度：

1 = (十分不滿意)  2 = (不滿意)  3 = (中立)  4 = (滿意)  5 = (十分滿意)

<table>
<thead>
<tr>
<th>1) 身體氣味</th>
<th>2) 食慾</th>
<th>3) 鼻子</th>
<th>4) 身體耐力</th>
<th>5) 反應能力</th>
<th>6) 嘴唇</th>
<th>7) 肌肉強度</th>
<th>8) 腰</th>
<th>9) 活力水平</th>
<th>10) 大腿</th>
</tr>
</thead>
<tbody>
<tr>
<td>body scent</td>
<td>appetite</td>
<td>Nose</td>
<td>physical stamina</td>
<td>Reflexes</td>
<td>lips</td>
<td>muscular strength</td>
<td>waist</td>
<td>energy level</td>
<td>thighs</td>
</tr>
<tr>
<td>11) 耳朵</td>
<td>12) 二頭肌</td>
<td>13) 下巴</td>
<td>14) 體格</td>
<td>15) 協調能力</td>
<td>16) 臀部</td>
<td>17) 敏捷程度</td>
<td>18) 肩膀闊度</td>
<td>19) 手臂</td>
<td>20) 胸部</td>
</tr>
<tr>
<td>Ears</td>
<td>biceps</td>
<td>Chin</td>
<td>Body build</td>
<td>physical coordination</td>
<td>buttocks</td>
<td>Agility</td>
<td>width of shoulders</td>
<td>Arms</td>
<td>chest or breasts</td>
</tr>
<tr>
<td>21) 眼睛外觀</td>
<td>22) 頰骨</td>
<td>23) 盆骨</td>
<td>24) 腿</td>
<td>25) 體態</td>
<td>26) 性慾</td>
<td>27) 腳掌</td>
<td>28) 性器官</td>
<td>29) 肚腩</td>
<td>30) 健康</td>
</tr>
<tr>
<td>appearance of eyes</td>
<td>checkbone</td>
<td>Hips</td>
<td>legs</td>
<td>figure or physique</td>
<td>Sexual drive</td>
<td>Feet</td>
<td>Sex organs</td>
<td>Stomach</td>
<td>health</td>
</tr>
<tr>
<td>31) 性能力</td>
<td>32) 體毛</td>
<td>33) 身體狀況</td>
<td>34) 臉孔</td>
<td>35) 體重</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>sex activities</td>
<td>body hair</td>
<td>physical condition</td>
<td>face</td>
<td>Weight</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
請對照以下圖片寫出你對自己的理想體形所處的位置

請對照以下圖片寫出你現時的體形所處的位置。
戊部分 PANAS

請於下列位置寫上每個情緒有多適用於形容你

<table>
<thead>
<tr>
<th>情緒</th>
<th>圖例</th>
</tr>
</thead>
<tbody>
<tr>
<td>感興趣</td>
<td>Interested</td>
</tr>
<tr>
<td>極不適用</td>
<td>1</td>
</tr>
<tr>
<td>不適用</td>
<td>2</td>
</tr>
<tr>
<td>中立</td>
<td>3</td>
</tr>
<tr>
<td>適用</td>
<td>4</td>
</tr>
<tr>
<td>本適用</td>
<td>5</td>
</tr>
<tr>
<td>煩燥</td>
<td>Irritable</td>
</tr>
<tr>
<td>警惕</td>
<td>Alert</td>
</tr>
<tr>
<td>興奮</td>
<td>Excited</td>
</tr>
<tr>
<td>羞愧</td>
<td>Ashamed</td>
</tr>
<tr>
<td>失落</td>
<td>Upset</td>
</tr>
<tr>
<td>被啟發</td>
<td>Inspired</td>
</tr>
<tr>
<td>剛強</td>
<td>Strong</td>
</tr>
<tr>
<td>緊張</td>
<td>Nervous</td>
</tr>
<tr>
<td>內疚</td>
<td>Guilty</td>
</tr>
<tr>
<td>堅定</td>
<td>Determined</td>
</tr>
<tr>
<td>受驚</td>
<td>Scared</td>
</tr>
<tr>
<td>注意</td>
<td>Attentive</td>
</tr>
<tr>
<td>懷敵意</td>
<td>Hostile</td>
</tr>
<tr>
<td>不安</td>
<td>Jittery</td>
</tr>
<tr>
<td>熱心</td>
<td>Enthusiastic</td>
</tr>
<tr>
<td>活躍</td>
<td>Active</td>
</tr>
<tr>
<td>自豪</td>
<td>Proud</td>
</tr>
<tr>
<td>害怕</td>
<td>Afraid</td>
</tr>
</tbody>
</table>

己部份 背景資料

年齡: ______ 性別: ______ 身高: ______ (米) 體重: ______ (公斤)

教育程度:  □小學 □初中 □高中 □文憑 □大專(年級:____) □大學以上

主修科目: ______________________

家庭收入:  □10,000 以下 □10,001~15,000 □15,001~20,000 □20,001~25,000
□25,001~30,000 □30,001~40,000 □40,001~50,000 □50,000 以上

父親教育程度:  □小學 □初中 □高中 □文憑 □大專

母親教育程度:  □小學 □初中 □高中 □文憑 □大專

關係狀況:  □單身 □有男友 □訂婚 □已婚 □離婚 □寡

我認為這個研究的目的是關於: _______________________.

感謝閣下幫助完成這份問卷!