

ANALYSIS OF BODY TYPE PREFERENCES AMONG YOUNG ADULTS

by  
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the requirements of the Sally McDonnell Barksdale Honors College.

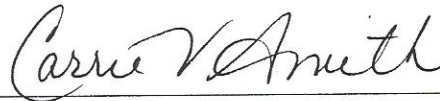
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## ABSTRACT

Based on a study conducted by Devendra Singh in 1993, it is believed that males prefer females with a lower waist-to-hip ratio of 0.7, as compared to higher ones. This may be due to the evolutionary advantage of these females being more fertile and able to reproduce. However, social media has been suggesting that thinner females are more attractive. One way society measures thinness is by a characteristic known as the 'thigh-gap' that many females strive to obtain. This study was conducted to discover whether or not a difference exists between males and females regarding their preference of the thigh-gap on a female body when measuring attractiveness. The results suggest there is no difference between males and females in preference for the thigh gap.

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*Dedication*

I dedicate this to my father, Maheshkumar Premji Hirji Kanji Keshavji Ganatra, for his endless support and encouragement. Thanks Papa.

### *Analysis of body type preferences among young adults*

One issue that has received a great deal of media attention over the last few years (particularly with respect to women) involves a characteristic referred to as the ‘thigh gap’. A thigh gap can be defined as any situation in which a person’s thighs do not touch while the person is standing upright with a normal posture. Although the thigh gap has been described by media outlets as a dangerously unattainable goal for most normal adults, it has been coveted as desirable, primarily by some potentially impressionable young women.

Although previous studies have examined similar phenomena (for example, the waist-to-hip ratio) and have suggested certain evolutionary explanations with respect to male and female preferences, to our knowledge there has not been a systematic investigation into male and female preferences concerning the thigh gap. The purpose of the present experiment is to fill this hole in the literature by attempting to determine (1) whether there is a difference between male and female preferences for the size of the thigh gap in women and (2) if such a difference exists, what types of factors might contribute to the difference.

#### *Fat Stores in Women*

Android fat and gynoid fat are the two types of fat stores in women. Android fat serves to cushion organs in the abdominal region and also accumulates in the trunk. Gynoid fat consists of long-chain polyunsaturated fatty acids which are useful in both, developing the brain of a fetus by supplying it with nutrients through the umbilical cord during pregnancy, and in lactation for breastfeeding newborns. This gynoid figure develops in adolescent females during puberty and this type of stored fat increases by

more than 200% within a few years after puberty. Fat storage in the gynoid regions facilitates maintaining a low center of gravity (a value of zero is considered ideal). This concept is crucial for physical stability and balance when a female is pregnant (Thornhill & Gangestad, 2008).

A higher level of testosterone in the female body encourages fat to deposit into the android regions while a higher estrogen level promotes fat to be stored in the gynoid regions (Thornhill & Gangestad, 2008). Measurements have been taken to support this idea – ratios of estrogen to testosterone do assist in the estimation of gynoid fat deposits to android fat deposits in women. The studies by Singh & Young (1995) and Kirchengast et al. (1997) also show that a higher ratio of gynoid to android fat (in Singh's study referred to as a low waist-to-hip ratio) results in more fertile females when compared to lower ratio females.

Previous research has suggested that there is a minimum percentage of body fat required for the human female body to produce offspring. The recommended amount of minimum body fat necessary for menarche is approximately 17% in a ratio of body fat to lean mass and approximately 22% to sustain the ability to reproduce. Those who are not able to maintain these minimum levels of body fat may experience secondary amenorrhea which is the loss of menstrual periods for six or more consecutive months (Lobo, 2012) or other reproductive obstacles (Frisch, 1987). Fat cells also act as an endocrine organ because they secrete estrogen. Adipocytes (fat cells) are a secondary source of estrogen with the ovaries being the primary source (Mandal, n.d.).

On the other hand, too much body fat can also interfere with a female's reproductive ability. It has been shown to substantially decrease the uterine's affinity for

the fertilized egg, preventing implantation, therefore decreasing chances of pregnancy (Rodriguez, 2012; Barton, 2012). Also, having too much fat, especially in the abdominal region can be a sign of bad health as this is characteristic of those with heart disease or other illnesses linked to this disease such as diabetes, high blood pressure, and high cholesterol. Females with these traits may not be able to reproduce, but if they do, they may pass on these bad genes to their offspring (*Belly fat can*, 2012).

It is believed that, as a result of sexual selection, males prefer to mate with the females who are fertile and *do* produce offspring versus the females who display signs that they may be less fertile. Such signs include being underweight or overweight in addition to post-menopausal women. The idea is that avoiding potential mates with such features might increase the males' chances of passing on their genes to further generations and not waste either their time or energy elsewhere.

There is some evidence to support these claims. For example, women with a high waist-to-hip ratio and low body mass index claim it is more difficult to become pregnant at a late age than women with a lower waist-to-hip ratio (Singh, 1993).

### *The Waist-to-Hip Ratio*

A study by Devendra Singh (1993) explores waist-to-hip ratios (WHR) in females and shows that males prefer the 0.7 proportion. Such preferences support the idea that women who are far above or below a 0.7 WHR may be less likely to produce viable offspring. The participants in Singh's study were shown twelve drawings of female figures including four categories of WHR (0.7, 0.8, 0.9, and 1.0) and three categories of body weight (underweight, normal, and overweight). They were asked to arrange the



pictures into the top three and bottom three according to their health, youthful looks, attractiveness, sexiness, desire for children, and capability for having children.

They found that the participant's own body mass index did not have any effect on the rankings that they gave to the drawings. The underweight categories received 35% in attractive ratings, whereas the normal body weight received 65%, and the overweight category did not receive any for most attractive. This would also support the idea that males would prefer a small or no thigh gap versus the females who exhibit extreme thinness. The underweight figures with the 0.7 and 0.8 WHR only received positive ratings on youthfulness, and the underweight figures with the 0.9 and 1.0 WHR did not receive ratings for appearing youthful or healthy. The underweight figure with the 0.7 WHR ranked highest in youthfulness, but lowest in capability for having children when comparing the 0.7 WHR of the three weight categories. Overall, the best ratings were given to the figure within the normal weight range that had a 0.7 WHR. It was classified as the most attractive, healthiest, and most fertile of all three weight categories and four types of WHR (Singh, 1993).

In the overweight category, the female figures were rated highest in desire and capacity for having children in the lower WHR. Another finding was that female participants preferred the thinner figures when rating attractiveness. Thus, a gender difference in preference was observed. More specifically, males preferred the figures that were a bit heavier than the ones selected by the women (Singh 1993). The primary purpose of the present study was to determine whether such preferences would occur with respect to the thigh gap.

### *Sexual Selection for a Certain WHR*

As noted above, there is ample evidence in the research literature to support the idea that there may be an evolutionary explanation in men's preferences for women with a WHR close to 0.7. For example, studies have shown that underweight females are more likely than normal weight females to experience oligomenorrhea and amenorrhea.

Oligomenorrhea is described as when a female has periods thirty-five or more days apart with fewer total periods per year than average, whereas amenorrhea is the absence of periods. Also, underweight females are more likely to have ovulatory infertility when compared to normal weight females. When they do give birth, underweight females often give birth to small, growth delayed infants who may be permanently damaged physically and/or intellectually (Singh, 1993).

Furthermore, females who are overweight also have difficulties conceiving because they often experience menstrual dysfunction and infertility. Females with a higher WHR also have a higher level of free testosterone when compared to a normal weight female. This is due to the fat deposits not being gynoid. This lack of proportional gynoid fat can be the reason behind the infertility (Singh, 1993).

Because reproduction is much more nutritionally expensive to females as compared to males, females have more gynoid fat storage in response to this demand. This excess fat can be used as energy during pregnancy and for breastfeeding after giving birth. Studies have also demonstrated that a high WHR is a strong predictor of mortality among both males and females.

In addition to the negative effects of being extremely underweight or overweight, evidence also suggests the positive health benefits of maintaining a normal body weight.

For example, a study conducted by Rose Frisch and Grace Wyshak (2000) found that women who were athletes in college had a lower risk of breast cancer compared to other women who had not been athletes during college.

This could be because fat is responsible for producing the estrogen hormone which directs cells of the breast, ovaries, and uterus to develop and divide. Leaner women have less fat to make this estrogen. The more division that occurs in these cells, the greater the risk of a gene mutation occurring that may cause a cancerous tumor. Without this extra fat, these lean women are decreasing their chances of developing those types of cancers.

Similar reasoning could also explain why female athletes have an onset of menarche at an average age of 15.5 years whereas the average for other girls is 12.5-12.8 years. This likely occurs because the lower percentage of body fat in the leaner girl athletes causes lower estrogen production. Female athletes also have a lower chance of developing non-insulin dependent diabetes mellitus since they are less likely than others to develop insulin resistance. Thus, overall, because there are high reproductive costs associated with being overweight or underweight, a preference for a body size that is consistent with indicators of fertility is consistent with the theory of sexual selection (Cromie, 1998).

In sum, in the pre-agricultural past, there were women with low and high levels of gynoid fat. The men who were attracted to a mate with less gynoid fat were not likely to produce as many viable offspring as those men who were attracted to a mate that had more gynoid fat. This is due to the fact that females with more gynoid fat are more likely to be fertile and have more fat storage to produce offspring that have better brain

development. The offspring of these women likely enjoyed enhanced cognitive functioning. The preference for women with a certain WHR then may have resulted from a process of sexual selection. Such a process could explain why, today, women with more gynoid fat are often viewed as more attractive. Out of this population, men would select for the females with even more prominent gynoid features (larger breasts, wider hips, etc.). This process would eventually be expected to create populations even more extreme in size. Over many generations, this would lead us to believe that these thousands of years of evolution would select for larger gynoid features.

### *The Thigh Gap in the News*

Although evidence of the type described above might explain why a male preference exists for women with a 0.7 WHR, it seems to suggest that men would find women with a thigh gap less attractive than other women (because their WHR would be unusually low). In an interview of psychotherapist Kimberly Mofitt, she suggested that, "...the thigh gap may be a way for women to quantify their beauty... (Rosa Hwang, 2013)." ABC News interviewed high school girls in New Jersey who were a part of an organization called Students Against Destructive Decisions. These girls agreed the thigh gap that females wish to attain is "a girl thing." And, when asked if it is about status, they all agreed that it was. They also insisted that boys do not even care about the thigh gap (James Goldstone, 2013). One purpose of the present study is to determine whether such gender differences exist in terms of preferences regarding the thigh gap.

The thigh gap that some young women aspire to attain was also discussed on FOX 25 Morning News with Maria Wood who is the founder of Fashion Focus Modeling and Finishing Program. They viewed an image of a girl who has a thigh gap and described

her as either pre-pubescent or as someone who has a very low body fat content. They agreed that this was not at all a “womanly figure.” Wood told viewers about her discussion with teenage girls and found that these young women believed that social media is the real culprit, especially because of the increased level of access to pictures of thin girls through tumblr, Pinterest, and Instagram. In other words, it is possible that the desire for a thigh gap could be fueled through continuous viewing of images on such sites (*The Thigh Gap*, 2013). This concept of the thigh gap is such a popular subject among teens that the same FOX Channel aired another segment on FOX 10 concerning the same topic. In this piece, personal trainer Felicia Romero discussed how her clients request specific training to achieve the thigh gap (*Thigh Gap: Dangerous*, 2013).

In an article of the Women’s Health section of TIME magazine, Charlie Campbell (2013) wrote about how emaciated those girls look who post pictures of their thigh gaps on social media. He continues to explain that experts believe this mission of teen girls may lead to mental problems such as eating disorders. Campbell also includes a quote by psychologist Barbara Greenberg, “Most women are not built that way to have that space between their thighs.” This is what many other experts say in the Medical and Psychological fields. Similarly, the NBC Today Show also discussed the thigh gap with Robyn Lawley (2013), a plus-size model for Ralph Lauren. She described how critics disapproved of her photo on facebook because the “key-hole” thigh gap she had was not large enough.

### *Changing Societal Standards*

With respect to apparent fads involving unhealthy weight loss, for example the thigh gap phenomenon, girls who have experienced “multiple transitions” such as early

physiological development, environmental changes, and social growth were reported to experience the lowest levels of self-esteem during seventh grade. Physical development alone did not cause the low self-esteem, but combined with any of the aforementioned factors had a large influence on the girls' self-esteem (Stattin & Magnusson, 1990).

It is possible that this low self-esteem may make such girls more vulnerable to what social media tells them is beautiful. It seems that new trends have shown models becoming thinner over the years, setting higher standards in beauty that are more challenging for females to achieve. The exposure to these media that has become more accessible over the years may also distort an adolescent female's perspective of how beauty is defined. This new level of beauty is becoming more extreme for these young girls, which in turn gives them a lower self-esteem. This is not made easy by the billion dollar industry of beauty products and surgical procedures that have become available.

Regardless of this, over the years, the definition of beauty has been changing. This has been seen through the shrinking silhouettes of Miss America winners throughout the years from the first year's winner now being viewed as overweight, to an extremely skinny perception of beauty that is now commonplace (Miss America Then and Now, 2014). Also, the average model in the past has been a size 10, however is now most ideally a size 0-2 (Littlejohn, 2011). In today's fashion industry, a size 8 is considered a plus size (Beck, 2014). Marilyn Monroe, who was named by Playboy magazine as the "#1 Sex Star" of the 20<sup>th</sup> century, and named by People magazine as the "Sexiest Woman of the Century" was a whopping size 12 (Cellania, 2012; Marilyn Monroe – Facts & Info, 1998).

America's perception of beauty in women has obviously shifted to skinnier fashion icons. This trend has also been seen in television shows for children such as the Disney channel. This generation's Disney actresses can seem gaunt in comparison to the pleasantly plump actresses of previous generations. Some of the stars on the channel today may be mistaken as anorexic and can be classified as underweight using their hypothetical BMI (Epstein, 2013).

### *The Current Study*

The primary research question of the current study relates to an apparent paradox: why is the modern perception of female beauty so thin as to represent an unhealthy (and likely less fertile) woman if males have evolved to be more attracted to the curvier females in the hopes for superior reproductive ability? More specifically, do women and men have differing views on the attractiveness of the female thigh gap? To test this idea, both women and men were presented with images of female figures possessing varying degrees of a thigh gap (see Figure #2 in the Appendix). They were then asked a series of questions pertaining to both their preferences with respect to the figures and a series of related questions (see Appendix for a full list of questions used in the study). It was hypothesized that, based on exposure to unhealthy depictions of female beauty popularized in the mainstream media coupled with evolved preferences in men, women would prefer the female images depicted with larger thigh gaps (i.e., thinner models) as compared to men.

## *Methods*

### *Participants*

The participants for this study were college students at the University of Mississippi who were recruited through the university's SONA website. A total of 148 participants were involved of which 84 were females and 64 were males.

### *Materials*

A consent form was given to and read to the students before they participated. It described the purpose of the study and mentioned that they would be asked questions about a sensitive topic. This form also explained that the students had a right to withdraw at any point before or during the questionnaire. To increase privacy of students' responses, they were encouraged to use their consent form to cover the scantron sheet that was provided to them to enter their responses into.

This study was conducted using a PowerPoint presentation to display the questions (see Appendix). The slides were shown to participants using a projector and screen.

One of the slides in the presentation included nine images. These images were drawings made of female figures with each of them displaying a different sized thigh gap. These images were labeled and separated into three rows and were in order from the largest thigh gap in the top row to the smallest (no gap) in the bottom row. A box was placed at the front of the room with a slit cut out so that the scantron answer sheets could be turned in anonymously.



### *Design and Procedure*

Undergraduate students from the University of Mississippi participated in fulfillment of partial course requirements. They were recruited by the university's SONA website and were allowed to sign up for the study of their preference. For the sections they participated in, they were given instructions that informed them of the date, time, and location. No more than thirty-five students were allowed to sign up at a time. Also, the same experimenter was used during each experimental session. During the study, as participants entered the survey room, they were each given a scantron sheet, a consent form, and a pencil. As they picked up the materials, they were told not to include any identifying information (such as their name) that would compromise confidentiality. In addition, they were also advised to spread out in the room.

Participants were asked to keep all electronic devices either off or on silent as well as to remove headphones or any other external distractions. The consent form was read to all participants and any questions they had were answered. The experimenter made clear that this study would ask questions on sensitive topics such as use of pornographic material; hence, they were advised to use their consent form to cover their scantron answer sheet for their own privacy.

The questionnaire took approximately fifteen minutes to complete. The questionnaire included a series of twenty-one questions and was presented to the participants in the form of a slideshow. Each question was read aloud and they were offered ample time to record their responses and were encouraged to slow down the experimenter if more time was needed. At the end of each question, participants were again asked if they needed more time to provide a response.

After the last question, a slide was presented and read to them which provided instructions for participants to insert their answer sheets into the slit of a box placed at the front of the room. They were asked to insert the sheet with their consent form still covering it to maintain confidentiality. Following this, the students were thanked for their participation and received credit.

## *Results*

For the purpose of analysis, the thigh gap photos were sectioned off into the first three (the three with the largest thigh gap), middle three, and the last three (the three with the smallest thigh gap). In the first three, a two-proportion  $z$ -test indicated that the difference between men and women who selected the top third as the most desired form was not significant,  $z = 0.27, p > 0.05$ . This suggests that no differences existed between men and women's preferences for the images depicted involving the thinnest thighs. Results were similar for the middle three,  $z = 1.54, p > 0.05$ , which again demonstrated no significant difference between the proportion of men and women who selected those silhouettes as the most desirable. For the final three (the heaviest images depicted), a similar story emerged,  $z = 0.86, p > 0.05$ . Thus, overall, no statistically significant differences were observed between the proportion of men and women who selected one of the three groups (thinnest, intermediate, heaviest) of images which the participants viewed.

In addition to analyzing the proportions of men and women who selected the various groups as most desirable, we also examined the average thigh gap preference as a function of gender. Overall, the average thigh gap preference for men was 5.69, and for women was 5.50. An independent samples  $t$ -test indicated that no difference in thigh gap preference was observed,  $t(145)=0.65, p>0.05$ . Thus, overall, it appears as if our original hypothesis was not supported. In other words, it did not appear to be the case that women preferred a larger thigh gap than men. Instead, both males and females selected similar thigh gaps.

Beyond these analyses, a number of observations were made with respect to the other responses on the questionnaire. For example, participants were asked what body type they preferred on a female. Not a single male claimed to prefer an underweight female. 48% of males preferred an average sized female while 42% preferred a slim one, but not so far as to be underweight. Only 9% were in favor of overweight females. Only 37% of females preferred a slim body type on females and 55% preferred an average sized female. Out of the 84 female responders, only one preferred an underweight female, and only 7% preferred an overweight female figure.

Participants in this question were asked to describe their own body type. 25% of male and 29% of female responders claimed their own body shape was slim. Out of the 168 male and female participants, none claimed to be underweight. 56% of males and 52% of females report that they are of average weight. 16% of males and 17% of females admitted to being thick and 3% of males and 2% of females admitted to being overweight. Thus, these observed trends were very similar among both men and women.

A question was asked about the participants' satisfaction with their own body. 0% of males and 5% of females were the least satisfied with their own bodies and rated a 1 on a scale of 1-5 with 1 being the least and 5 being the most satisfied. 14% of males and 25% of females rated their body satisfaction at 2, and 31% of males and 24% of females rated a 3 for moderate satisfaction. 47% of males rated their body satisfaction a 4, whereas 45% of females rated the same. Only 1% (1 responder in 84) of females was completely satisfied with her own body, whereas 8% of males were completely satisfied. The trend here also seems to be for the most part similar among males and females.

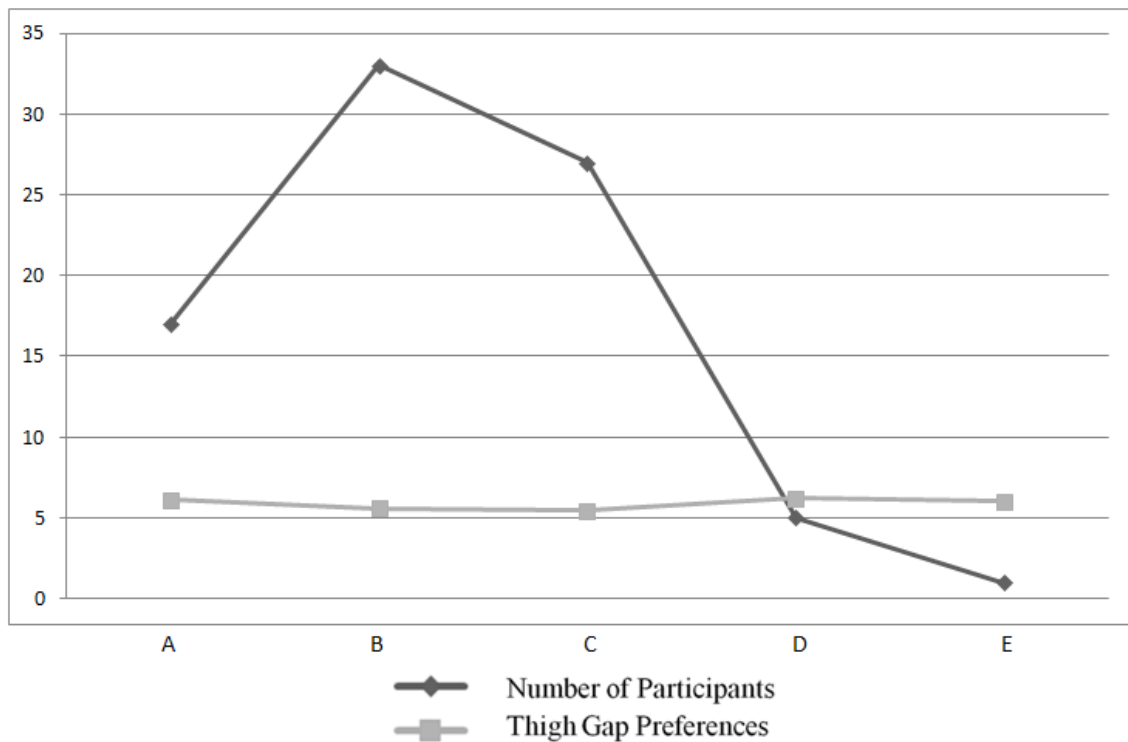
Participants were asked if they would like to gain weight, stay the same, lose weight, gain muscle, or it does not matter. Only 1 male responder out of 64 and 6% of females (5 responders in 84) wanted to stay the same in terms of losing/gaining weight or gaining muscle. 69% of male responders wanted to gain some muscle as compared to just 23% of females, while 67% of females wanted to lose more weight as compared to just 22% of males.

The participants were asked how important they believed attractiveness is. None of the 64 male responders believed that attractiveness is not at all important, and only one of those responders believed it is less than moderately important. This is in contrast to one of the 84 female responders who believed attractiveness is not at all important while three believed it is less than moderately important. A relatively large percentage, 64% of males and 49% of females, believe attractiveness is more than moderately important. 17% of males and 14% of females believe that attractiveness is most important. This trend that males find attractiveness more important than females is consistent with the beliefs of evolutionary psychology when choosing a mate. Instead of only focusing on finding an attractive male mate, females might also tend to choose a mate with plentiful resources.

They were also asked about the frequency in which they read fashion magazines. 81% of males claim to never read fashion magazines of thin models. On the other hand, only 20% of females have the same claim. The rest of the females claim to read fashion magazines around once a month or more often. There was no noticeable trend in thigh gap preference for females who did read fashion magazines frequently compared to those who never read them. The letters of each answer choice with corresponding averages of

thigh gap preferences are presented in the graph below. A smaller number for the thigh gap reflects smaller thighs that display a larger thigh gap; therefore, a smaller number represents a larger thigh gap.

Figure #1



When participants were asked how often they used pornographic material, there was no obvious pattern in their thigh gap preferences. Males who reported to never have viewed pornographic material had an average thigh gap preference of 5.6, whereas those who viewed pornographic material almost daily or daily had an average thigh gap preference of 5.5. The males who reported usage of once a month or less or two to four times per week had an average thigh gap preference of 5.8. The smallest thigh gap preference was in those males who viewed pornographic material two to four times per month.

The participants were then asked about the earliest age that they began to view pornographic material. For all of the males who acknowledged their usage of pornographic material, none claimed to have begun using it at age 18 or above. Those who have used it did so before the age of 18. When comparing the age of first use of pornographic material to the males' thigh gap preference, there was a clear trend. Exposure at a younger age was linked to a larger thigh gap preference (thinner underdeveloped thighs) and exposure at an older age showed a smaller thigh gap preference (more developed thighs). The following chart shows the age that the male participants began to view pornographic material compared with the average thigh gap preference reported. It is believed that this trend could be due to the males noticing females their age after their initial porn usage. Younger females who are underdeveloped tend to have thinner thighs which can display a larger thigh gap. This may be a reason that younger exposure to pornographic material can lead to a preference of a larger thigh gap.

Table #1

<b>Earliest Age of Viewing Pornographic Material</b>	<b>Average Thigh Gap Preference (smaller number means larger thigh gap)</b>
<b>9 or younger</b>	5.00
<b>10-12</b>	5.17
<b>13-15</b>	5.54
<b>16-17</b>	6.33
<b>18 or older</b>	--

Participants were asked if they were to choose a category of pornographic material to view, which would it be and then were given answer choices varying in size

from very thin to overweight. There is no noticeable trend seen when comparing the body size of the males' preferred thigh gap with the body size of pornographic performers.

When considering the age categories of pornographic performers compared with body type preferences, there is a trend seen in males. As the preferred age group increases, the preferred thigh gap appears to decrease. This could be due to development – younger females tend to have a larger thigh gap.

Participants were asked about the number of diets they have been on during their lifetime. 68% of female participants have been on at least one diet in their lifetime. A relatively large number of women, 14% of those females, reported to have been on more than 10 diets during their lifetime. Of these females, their average thigh gap preference was rated 5.25 as compared with 5.73 for the rest of the females. For this reason, it is believed that females who take on more diets will have a preference for larger thigh gaps. Also, this relates to Question #16 which asks female participants if they would diet and/or exercise to achieve a thigh gap.

Participants were asked which dieting methods they have tried. For those who have tried extreme dieting (defined as skipping meals or not eating at all), their average 'ideal' thigh gap size was found to be 5.55. The average of the other females was 5.68, which is just a slightly smaller thigh gap.

When given 5 choices of where the participants wanted to lose fat, 6% of males and 26% of females wanted to lose fat on their thighs. For these females who wanted thinner thighs, their thigh gap preference was also slightly lower than their counterparts. They rated 5.38, which is slightly lower as compared to 5.79 for the rest of the females and 5.69 for overall thigh gap size preference among females. 17% of males and 1% of



females did not want to lose fat in any of the five listed regions of the body. That data is consistent with the findings with question 3. Only one female responder was completely satisfied with her own body.

When asked whether or not participants were familiar of what a thigh gap is, 75% of males and 88% of females responded that they are aware of what a thigh gap is.

After the participants were informed of what the definition of a thigh gap is, 58% of males and 54% of females said they either desire a thigh gap or find it attractive on females. The average size desired thigh gap that the males reported was 5.57, whereas the ones who reported to not prefer a thigh gap had an average of 5.33. The data for the females is more consistent than that found for males. The females who reported to prefer a thigh gap had an average of 4.7 for a larger thigh gap than their counterparts who did not prefer a thigh gap whose average was 6.79.

45% of females said they would diet and/or exercise to attain the thigh gap. Of these females, an astounding 61% reported in Question #12 that they have tried the dieting method in which they skip meals or do not eat at all.

Participants were asked if they have a thigh gap do they love it or hate it, if they do not have a thigh gap would they want one or if they would not, and if they could not care less about having a thigh gap. Of all the female participants with a thigh gap, not a single one responded that they dislike their thigh gap. 18% of females responded that they have a thigh gap and love it. On the other hand, 27% of females did not have a thigh gap, but wanted one. 17% of females said they did not have a thigh gap and do not like the idea of having one. 38% of females responded that they could not care less about the thigh gap. The results of this question are in the chart below and show that the data

collected is consistent with what is to be expected. Those females who prefer a thigh gap reported a lower average than those who do not prefer a thigh gap.

Table #2

<b>Description of Female Participants' Opinion of the Thigh Gap</b>	<b>Thigh Gap Preference Rating (Lower number indicates larger thigh gap)</b>
<b>I have a thigh gap and love it.</b>	4.53
<b>I have a thigh gap and hate it.</b>	--
<b>I don't have a thigh gap but would like one.</b>	5.13
<b>I don't have a thigh gap and would not like one.</b>	6.71
<b>I couldn't care less about the thigh gap.</b>	6.19

When asked if the participants knew someone or themselves obsessed over obtaining a thigh gap, 25% of females and 5% of males responded "yes."

## *Discussion*

Overall, there seems to be one main conclusion based on the results of the participants' reported responses. That is, there does not appear to be a difference between men and women's reported preferences for a thigh gap in the female silhouettes used in the present study. We originally proposed that women might find a larger thigh gap more desirable than men. This was based on the idea that women, perhaps as a result of sociocultural pressure, may believe that it is a desirable trait. Similar to observations obtained in previous research on the waist-to-hip ratio, men, on the other hand might be more inclined to select women with a smaller thigh gap (or no gap at all).

There are a number of possible explanations for our failure to find such a difference. The images presented to the participants may not have depicted how a more realistic thigh gap would appear (i.e. straight lines were used instead of the curvature of the legs). Another reason may be the age of the participants. These young college students may have been more inclined to select the thigh gap that is most representative of the thigh gap size in their own age group which is larger than the older generation. Also, since only college students were chosen for this particular study, they may have been more likely to select the thigh gap size that they believe represents a healthy body size – that being a non-obese silhouette. Also, because there was only one illustration used depicting no thigh gap, participants who were unsure of their own preference may have selected the centermost illustration rather than something extreme on either side.

In the future, some questions that researchers might want to address are (1) have participants of various ages and intellectual backgrounds and not just young college students (2) use more illustrations depicting no thigh gap (3) have all of the participants

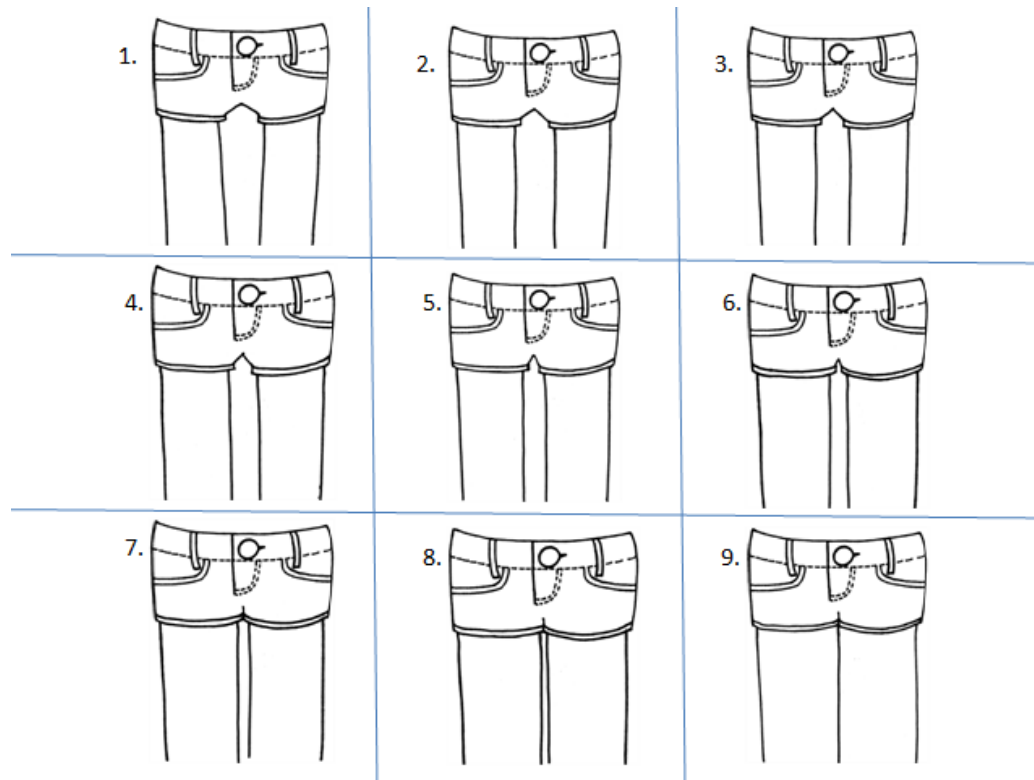
attend the survey during the same time, day, and location – having different days may increase extraneous variables (4) conduct another study in which participants are asked what traits make each illustrated thigh gap more desirable.

Appendix

Analysis of body type preferences among young adults

- What is the first thing you notice about the body when you look at a female?
- Select ONE female on the next slide that you think is most attractive. Enter your answer into the “Grade or Education” box on the scantron as shown below.

Figure #2:



- What is your gender?
1. What body type listed below do you most prefer on a female?
    - A. Underweight
    - B. Slim
    - C. Average
    - D. Thick
    - E. Overweight

2. How would you describe your own body type?

A. Underweight

B. Slim

C. Average

D. Thick

E. Overweight

3. How satisfied are you with your own body on a scale of 1-5 with 1 being the least and 5 being the most.

A. 1

B. 2

C. 3

D. 4

E. 5

4. Would you like to...

A. ...gain more weight

B. ...stay the same

C. ...lose more weight

D. ...gain some muscle

E. ...does not matter

5. How important do you think attractiveness is? Use a scale of 1-5 with 1 being the least and 5 being the most.

A. 1

B. 2

C. 3

D. 4

E. 5

6. How frequently do you read fashion magazines that contain images of thin models?

- A. Never
- B. Once a month or less
- C. 2-4 times per month
- D. 2-4 times per week
- E. Almost daily or daily

7. How frequently do you view pornographic material?

- A. Never
- B. Once a month or less
- C. 2-4 times per month
- D. 2-4 times per week
- E. Almost daily or daily

8. What is the earliest age you began to view pornographic material?

- A. 9 or younger
- B. 10-12
- C. 13-15
- D. 16-17
- E. 18 or older

If you were to choose a category of pornographic material to view, which of the following would it be? Please choose ONE from each column:

- |                |                     |
|----------------|---------------------|
| 9A. Very thin  | 10A. Child          |
| 9B. Thin       | 10B. Teen           |
| 9C. Average    | 10C. Youngest legal |
| 9D. Thick      | 10D. Adult          |
| 9E. Overweight | 10E. Mature         |

11. How many diets have you been on during the course of your lifetime?
- A. Never
  - B. 1-3
  - C. 4-6
  - D. 7-10
  - E. 10+
12. What dieting methods (if any) have you tried? Select all that apply.
- A. Reduce caloric intake
  - B. Diet program where they send you food
  - C. Weight Watchers
  - D. Diet that involves omitting an entire food group or just eating one type of food (E.g. apple diet, cabbage soup diet, Adkins diet, maple syrup diet, etc.)
  - E. Skipping meals or not eating at all
13. What body part would you like to lose fat on?
- A. Arms (bingo wings)
  - B. Legs (thighs)
  - C. Chest
  - D. Abs
  - E. Butt
14. Are you familiar with what a thigh gap is?
- A. Yes
  - B. No

A thigh gap is defined as the space between the thickest part of the thighs as a female is standing with knees touching.



15. Is the thigh gap something you desire or find attractive on females?
- A. Yes
  - B. No
16. Would you diet and/or exercise to achieve the thigh gap?
- A. Yes
  - B. No
17. Which describes you the best?
- A. I have a thigh gap and love it.
  - B. I have a thigh gap and hate it.
  - C. I don't have a thigh gap but would like one.
  - D. I don't have a thigh gap and would not like one.
  - E. I couldn't care less about the thigh gap.
18. Do you or someone you know obsess over obtaining the thigh gap?
- A. Yes
  - B. No

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