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Cross court view: Comparison of body image during competition

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CROSS COURT VIEW: COMPARISON OF BODY IMAGE DURING COMPETITION

By

Timothy M. Kelly

B.A. Loras College, 2010

A Research Paper

Submitted in Partial Fulfillment of the Requirements for the

Master of Science in Education

Department of Kinesiology

in the Graduate School

Southern Illinois University Carbondale

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RESEARCH PAPER APPROVAL

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Approved by:

Motier D. Becque, Chair

Graduate School

Southern Illinois University Carbondale

August 30, 2016

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TIMOTHY M. KELLY, for the Master of Science in Education in KINESIOLOGY, presented on AUGUST 30, 2016 at Southern Illinois University Carbondale.

TITLE: CROSS COURT VIEW: COMPARISON OF BODY IMAGE DURING COMPETITION

MAJOR PROFESSOR: Dr. Motier D. Becque

There are many studies on body image but few focus on the body image of athletes. Further, there are few studies on the effects of appearance on athletic performance. Past studies have focused on internalization or body image dissatisfaction. None have gathered data about competition to see if body image and appearance of competitors effects athletic performance. Using an 18 question adapted Likert survey and two qualitative questions we explored whether appearance of the other competitors has an impact on athletic performance. The study was conducted using 50 division I female athletes from the softball, volleyball, tennis, swimming and diving, and track and field teams. The participants were in the age range of 20 ± 1.29 years. All subjects completed the survey in its entirety to be included in the study. The results showed that there appears to be no relationship between performance and body image. Mean scores for the entire group were 3.04 ± 1.4 . Mean scores were also calculated for each individual team; softball, 3.2 ± 1.44 , volleyball, 2.7 ± 1.48 , swimming and diving, 3.7 ± 1.41 , track and field 2.8 ± 1.35 , and tennis, 2.9 ± 0.94 . These results indicate that competitor appearance does not have an impact on female NCAA DI athletes.

Keywords: Body image, performance, athletic

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INTRODUCTION

Body image has become a popular research topic in the last 15 years. This variable has been used as a tool and indicator to measure performance, internalization, and workout participation. It has also been used as a method to find how individuals look at themselves and see themselves. By understanding body image in greater depth, it is possible to increase self-esteem, self-efficacy, and reduce depression. This in turn could lead to more positive feelings about oneself and an increase in athletic or recreational exercise participation (Charalampos & Grogan, 2014).

Body image is an umbrella term encompassing many constructs. Body image concerns are indicated by body size misperceptions and/or negative attitudes or feelings towards the human body and its appearance (Cash & Szymanski, 1995). This is especially prevalent at a young age where individuals value their body image as a means of social acceptance, ability to establish relationships, build identity. In some cases, success is believed to hinge, to some extent, on attractiveness, particularly for young women.

This can be particularly problematic because people tend to interpret their body image as lesser than that of others. In a 2015 study performed by Novella, Gosselin, & Danowski, subjects were asked to choose, using a scale of figure drawings, their current body, their ideal body and most attractive body. Results showed that current versus ideal body selection discrepancies were present among women, but not among men. The results showed several negative outcomes involving increased body concerns, less body satisfaction

and lower self-esteem. This study also showed increased drive for muscularity among men (Novella et al., 2015). This study is important and unique because it used a new scale that included body types from thin to obese, more body types to choose from with extremes at each end point. Previous studies had not offered illustrations and only offered a Likert scale to collect data. This offered subjects an increased ability to accurately choose their current body type as well as their desired body type. It showed that results from the scale and images selected were directly correlated with BMI scores for women. This could be a predictor of body dissatisfaction while performing and analyzing the opposition's physical characteristics during athletic competition. It also shows that these women critically analyze appearance.

Other studies have also examined if appearance is important to adolescents and found similar results. In a 2013 study, Grosick, Talbert-Johnson, Myers, & Angelo surveyed a group of middle school students on the importance of appearance as it pertains to overall body health. Three Hundred and thirty-four middle school students were given a two-page survey assessing the importance of overall health. Along with body health the survey also addressed issues such as getting good grades, external forces/pressures that adolescent students face, dieting and unhealthy behaviors to body image. Results showed that 80% of the population surveyed indicated that appearance is an important part of middle school children's personas. Girls showed a higher pressure to diet when compared to boys and also displayed a higher level of depression over appearance. Girls were also shown to be at a higher

risk of disordered eating (Grosick et al., 2013). This shows how important appearance is to females to look and be physically fit.

Some of these feelings and pressures to be physically fit in athletics come directly from the media. The media presents an image of what an “ideal” shape looks like or what a “perfect” body is supposed to look like. This is done without taking into account athletic position, sport and other physiologic factors associated with performing at a high level. This can contribute to psychological consequences and mental health risks (Varnes et al., 2013). These consequences can include decreased levels of self-esteem, body shaming and an over-attention to body surveillance. Varnes et al. (2015), performed a study comparing athletes vs. non-athletes to see if there are differences in body esteem, body shame, and body surveillance between groups based on portrayals of women’s appearance in the media. They found that a majority of athletes experienced better body esteem than non-athletes when comparing themselves to their peers in the media. Body esteem was divided into three categories: physical condition, sexual attractiveness and weight factors. Results showed that all athletes experienced better body esteem than non-athletes. The results also showed that athletes in more objectified sports experienced greater internalization, thereby increasing body image concerns and feelings of body shame without increasing body surveillance or body image concerns (Varnes et al., 2015). It is also worth noting that during the analysis of these studies the researchers found that the studies examined were based on eating pathology and not body image concerns (Varnes et al., 2015).

Body surveillance is of particular interest in this study and suggests that athletes do not compare themselves to others during competition. The participants in this study were exclusively female which is important to current and future research. Women are more affected by body image and the pressure to be thin. The pressure of being thin also comes with the pressure to simultaneously be athletic. This is an interesting concern across sports because being “thin” in certain sports does not increase performance. In track and field participating in the throwing events of shot put, hammer, and discus having increased musculature allows these particular athletes to compete at a higher level.

Research has indicated that body image is “gendered” in nature and that women experience more diverse effects in relation to body image (Smolak & Murnen, 2008). This could indicate that females experience a different drive or different goals in regard to body image. The desire for thinness and a lean physique could be more prevalent in female athletics due to, but not limited to, the uniforms that are worn during competition. Women’s athletics in competition are made to wear more form fitting and revealing clothing than men. Body features are more pronounced and noticeable during competition.

Current research has also examined the relationship between body image and internalization among female athletes. In a recent study Fortes et al. (2015) examined the effect that internalization had on body image. The researchers suggested that according to the sociocultural model of body image, there are two mechanisms by which body dissatisfaction is triggered, namely: social

comparison and internalization of sociocultural body ideal (Fortes et al., 2015). The researchers defined body image as how the body sees itself. It consists of a multidimensional construct, which consists of feelings, beliefs, perceptions and cognitions about the body. This is different than internalization, which is divided into two types, overall and athletic. Overall internalization refers to the unconscious desire of girls to look like actresses and models who often appear in movies, magazines and television. Athletic internalization is related to the desire to show morphological similarity with athletes that appear in sports magazines or television channels. For athletes there is pressure to be thin but also muscular. The researchers observed athletic internalization in young female track and field athletes ages 12-17. The researchers used a modified Body Shape Questionnaire to assess body image and the Sociocultural Attitudes Towards Appearance Questionnaire-3 to assess internalization. Data collection was performed at two different times. Ninety-two athletes participated in this study. Overall, 25.3% of athletes presented some level of body dissatisfaction. The relationship between overall internalization and athletic internalization did not correlate. The subjects displayed increased levels of internalization, particularly athletic internalization when subscales of both surveys were compared. This study was unique because they divided internalization into athletic vs. overall internalization. The study concluded that body image and athletic internalization are correlated, which suggests that athletes compare themselves to their peers (Fortes et al., 2015). This begs the question if this tendency translates to athletes comparing themselves to their peers outside of their own

sport. Paes, Neves, Meireles, & Ferreira (2015), examined the relationship between media-ideal and athletic internalization between young female gymnasts and track and field sprinters. They used a modified Sociocultural Attitudes Toward Appearance Questionnaire-3 in their study and found that no significant differences exist when athletes from different sports compare themselves to each other (Paes et al., 2015). This could suggest that athletes don't compare themselves to cross sport athletes and only focus on athletes from their sports as the chief influences of body image. This study is important and establishes that athletes compare themselves to their competitors.

The purpose of this study was to assess whether female collegiate athletes compare their body image to their competitors.

METHODS

Participants

Participants were 50 female Division I student-athletes from the softball, track and field, volleyball, tennis, and swimming and diving teams. The mean age of the participants was 20 ± 1.29 years.

Apparatus

A survey was administered to current Southern Illinois University Carbondale female athletes. It was distributed to the athletes in person at that time the athletes gave their formal consent before completing the survey. The survey itself was a modified version of the Body Shape Questionnaire and the Sociocultural Attitudes Towards Appearance Questionnaire. It also included two qualitative questions to allow the participants to explain their feelings about

body image. The survey consisted of 18 questions that were answered on a Likert Scale. The qualitative questions followed the Likert scale questions to conclude the survey. A copy of the survey is included in Appendix A.

Procedures

Approval was obtained from the Southern Illinois University human subject's committee to insure the safety of the participants. Participants were approached in person. The participants were told about the survey. If the participant agreed they were handed an envelope containing an informed consent form, a demographics page and the survey itself. The participants were told that if at any time they did not want to participate that they had the option of returning all contents of the envelope and not participating. Completed surveys were collected and analyzed.

Analysis

The demographics page and Likert scale questions were analyzed with Microsoft Excel and means and standard deviations were obtained for each question. The Likert scale was from strongly disagree to strongly agree. It was analyzed with 1 equal to strongly disagree to 5 equal to strongly agree with 3 being the midpoint, neither agree or disagree. The data analysis and tables are included in the results section.

RESULTS

Overall, 50 surveys were collected from the softball, volleyball, swimming and diving, track and field, and tennis teams. The subjects consisted of 1 Native American, 2 Asian or Pacific Islanders, 3 Hispanic or Latin, 9 Black or

African American, and 35 White or Caucasian participants. Of all of the participants 13 were members of the softball team, 6 members of the swimming and diving team, 5 members of the volleyball team, 2 members of the tennis team and 23 members of the track and field team. Participants had a mean age of 20 ± 1.29 years and weight of 67.7 ± 15.1 kg.

When overall results are compared there were two questions that stood out. Question 2, I compare my body to my competitors, had a mean score of 3.7 ± 1.17 , indicating a general agreement with the statement. Question 15, has thinking about your shape interfered with your ability to concentrate, had a 1.9 ± 1.32 mean score indicating a disagreement with the question. These data indicate that athletes do compare themselves to their competitors but it does not impact their concentration.

There were some interesting differences between the sports. Particularly questions 11 and 13 of the survey. Softball, swimming and diving, and tennis had similar scores. Question 11 asked, have you been afraid that you might become fat? Question 13 asked, has being with thin women made you feel self-conscious about your shape. These groups indicated that there is pressure on athletes to maintain an athletic appearance and body image is a factor within their sports.

Also worth noting, track and field, as well as, swimming and diving agreed with question 2. They do in fact compare themselves with their competitors. Swimming and diving and tennis agreed with questions 10, 11, 14, 16, and 18. These are all weight related questions asking the athletes if

they have ever felt overweight in the company of other athletes. These two teams appear to have a strong concern about appearance while comparing body types, shapes and size.

Softball, swimming and diving, and tennis disagreed with none of the questions asked on the survey. These data suggest that these athletes are not affected by the appearance of their competitors. The only comparable team data are track and field and volleyball. They both tended to disagree with question 12, which states, have you ever felt so bad about your shape that you have cried. The volleyball team disagreed with questions 6, 7, 10, 12, 13, and 16 indicating that they do not compare themselves to other athletes during competition. This also indicates they have not felt pressured to change their bodies to improve their performance based on the appearance of their competitors. This could also be said about the softball team as they neither agreed nor disagreed with a large amount of the survey indicating that they are not affected by the appearance of their competitors.

In addition to the Likert questions the participants were also asked two qualitative questions. The purpose of these questions was to allow the athletes to tell what they feel makes someone appear athletic and if they see these characteristics in their competitors. Participants were asked:

What does it mean to have an “athletic body? And, what characteristics of competitors have you noticed that makes them appear athletic?

As some common characteristics became clear as the answers were read. Themes that emerged from the first questions were: toned, muscle definition,

lean, hard body, tall, visible muscles, defined legs, healthy looking and slim. Themes that arose from the second question were: muscular, competitor mentality, slim, toned, quick, fast, weight under control for their sport, confident, big legs, defined abdominals, and emotional. There were both intrinsic and extrinsic themes that appeared during the qualitative questions.

DISCUSSION

Some of the results were very surprising and others were unimpressive. The softball team did not appear to care about comparisons to competitors but remained concerned about maintaining an “in shape” appearance. Their answers were not surprising due to the appearance of their uniforms or the demands for their sport. Their uniforms are loose fitting and cover a majority of their body. Body characteristics and features of competitors are not clearly visible. The sport of softball lends itself to having a strong and powerful frame so the athletes reflect that in their comments. The predominate softball characteristic that emerged was muscular.

Volleyball, track and field, and tennis athletes recorded similar mean scores. The means across all of the Likert questions were 2.74, 2.85 and 2.94, for volleyball, track and field and tennis, respectively. This was very interesting since volleyball and track and field have very revealing uniforms. Volleyball athletes disagreed with many questions showing they did not make comparisons to their competitors. Track and field was possibly the most surprising.

Table 1. The survey results for each question for the whole group and each team separately. Data are presented as means with standard deviations in parentheses after.

Question Number	All Groups	Softball	Volleyball	Swimming & Diving	Track & Field	Tennis
1	3.0 (1.3)	2.9 (1.1)	2.8 (1.3)	3.2 (2.0)	3.1 (1.3)	3.0 (1.4)
2	3.7 (1.2)	3.6 (1.1)	3.4 (1.5)	4.3 (.8)	3.9 (1.1)	2.5 (2.1)
3	3.3 (1.3)	3.0 (1.2)	4.4 (.9)	3.5 (1.4)	3.2 (1.3)	2.0 (0)
4	2.8 (1.3)	2.7 (1)	2.8 (1.3)	3.5 (1.6)	2.8 (1.3)	2.5 (2.1)
5	3.1 (1.4)	3.3 (1.3)	2.8 (1.8)	3.8 (1.6)	3.0 (1.4)	2.5 (2.1)
6	2.9 (1.2)	2.5 (1.3)	2.4 (.9)	3.8 (1.2)	2.6 (1.2)	2.0 (0)
7	2.9 (1.4)	3.1 (1.4)	2.2 (1.6)	3.8 (1.5)	2.7 (1.4)	3.0 (1.4)
8	3.0 (1.3)	3.2 (1.3)	2.4 (1.1)	3.3 (1.0)	3.0 (1.4)	3.5 (.7)
9	3.4 (1.2)	3.3 (1.1)	3.8 (1.3)	3.0 (1.3)	3.5 (1.3)	4.0 (1.4)
10	3.5 (1.5)	3.6 (1.5)	2.4 (1.9)	4.3 (.8)	3.3 (1.5)	4.0 (0)
11	3.5 (1.4)	3.9 (1.4)	3.0 (1.6)	4.0 (.9)	3.3 (1.5)	4.0 (0)
12	2.4 (1.6)	2.9 (1.7)	2.2 (1.8)	2.8 (.0)	2.1 (1.5)	2.5 (2.1)
13	2.9 (1.6)	3.7 (1.3)	2.4 (1.9)	4.0 (1.7)	2.5 (1.6)	1.5 (.7)
14	3.3 (1.4)	3.9 (1.3)	3.0 (1.9)	4.2 (1.3)	2.8 (1.3)	4.0 (0)
15	1.9 (1.3)	2.2 (1.5)	1.4 (1.6)	2.8 (1.7)	1.5 (1.0)	2.5 (2.1)
16	3.1 (1.4)	3.3 (1.5)	2.4 (.9)	4.0 (1.3)	2.8 (1.3)	4.0 (0)
17	2.9 (1.7)	3.6 (1.5)	3.0 (1.5)	3.5 (2.0)	2.3 (1.6)	1.5 (.7)
18	3.2 (1.5)	3.1 (1.7)	2.6 (1.9)	4.3 (1.2)	3.0 (1.3)	4.0 (0)

Their uniforms are extremely revealing and form fitting. Their uniforms lend themselves to comparison and analysis yet the athletes reported comparisons were not important to them. These athletes do not appear to make comparisons and are likely focused on the competition itself.

The swimming and diving athletes were different than the rest of the teams surveyed. They had a mean score of 3.7, the highest of the study. This was surprising since their uniforms are very revealing and do not cover a majority of their bodies. Comparison with competitors is easily accomplished with just a glance. These swimmers and divers looked at competitors body parts that were connected to the competition. The features identified were tall, big shoulders, “6 pack”, a thin waist, big arms, a big back and visible muscles.

Although this study provided valuable information it did have some limitations. For instance, the qualitative questions should be worded differently. The wording of the questions was similar and this lead to similar answers for both questions. The same themes arose in both questions. The second question should be written to assess the impact of comparison on perceived performance. Also more participants from more than one NCAA University would have broadened the scope of the study.

CONCLUSION

The female athletes in this study appear not be effected by their competitor’s appearance. Mean scores suggested these female athletes are not concerned about the looks of their competitors and their performance is unaffected by the appearance of their competitors.

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APPENDIX A

Questionnaire used for this study.

1. I do not care if my body looks like the body of my competitors.

Disagree	Somewhat Disagree	Neither Agree Nor Disagree	Somewhat Agree	Agree
1	2	3	4	5

2. I compare my body to the bodies of my competitors.

Disagree	Somewhat Disagree	Neither Agree Nor Disagree	Somewhat Agree	Agree
1	2	3	4	5

3. I do not feel pressure from the results of games to change my appearance?

Disagree	Somewhat Disagree	Neither Agree Nor Disagree	Somewhat Agree	Agree
1	2	3	4	5

4. I would like my body to look like my competitors.

Disagree	Somewhat Disagree	Neither Agree Nor Disagree	Somewhat Agree	Agree
1	2	3	4	5

5. I compare my appearance to the appearance of my competitors.

Disagree	Somewhat Disagree	Neither Agree Nor Disagree	Somewhat Agree	Agree
1	2	3	4	5

6. I have felt pressure from my competitors to change my appearance to have the perfect body.

Disagree	Somewhat Disagree	Neither Agree Nor Disagree	Somewhat Agree	Agree
1	2	3	4	5

7. I have felt pressure from my competitor's appearance to lose weight.

Disagree	Somewhat Disagree	Neither Agree Nor Disagree	Somewhat Agree	Agree
1	2	3	4	5

8. I wish I looked as athletic as my competitors.

Disagree	Somewhat Disagree	Neither Agree Nor Disagree	Somewhat Agree	Agree
1	2	3	4	5

9. My competitors are not an important source of information about my performance.

Disagree	Somewhat Disagree	Neither Agree Nor Disagree	Somewhat Agree	Agree
1	2	3	4	5

10. Have you been so worried about your shape that you have been feeling you ought to lose weight?

Disagree	Somewhat Disagree	Neither Agree Nor Disagree	Somewhat Agree	Agree
1	2	3	4	5

11. Have you been afraid that you might become fat?

Disagree	Somewhat Disagree	Neither Agree Nor Disagree	Somewhat Agree	Agree
1	2	3	4	5

12. Have you felt so bad about your shape that you have cried?

Disagree	Somewhat Disagree	Neither Agree Nor Disagree	Somewhat Agree	Agree
1	2	3	4	5

13. Has being with thin women made you feel self-conscious about your shape?

Disagree	Somewhat Disagree	Neither Agree Nor Disagree	Somewhat Agree	Agree
1	2	3	4	5

14. Have you noticed the shape of other women and felt that your own shape compared unfavorably?

Disagree	Somewhat Disagree	Neither Agree Nor Disagree	Somewhat Agree	Agree
1	2	3	4	5

15. Has thinking about your shape interfered with your ability to concentrate (e.g. while performing in a game or race)?

Disagree	Somewhat Disagree	Neither Agree Nor Disagree	Somewhat Agree	Agree
1	2	3	4	5

16. Have you been particularly self-conscious about your shape when in the company of other athletes?

Disagree	Somewhat Disagree	Neither Agree Nor Disagree	Somewhat Agree	Agree
1	2	3	4	5

17. Have you felt overweight?

Disagree	Somewhat Disagree	Neither Agree Nor Disagree	Somewhat Agree	Agree
1	2	3	4	5

18. Have you ever felt ashamed of your body?

Disagree	Somewhat Disagree	Neither Agree Nor Disagree	Somewhat Agree	Agree
1	2	3	4	5

Open-Ended Questions

1. What does it mean to have a "athletic body"? (Please write as much as you would like to help describe the perfect "athletic" body.)

2. What characteristics of competitors have you noticed that makes them appear athletic (Please write as much as you would like to describe and athletic competitor)?

VITA

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