Bryant University

HONORS THESIS

Gender Discrepancy in the Weight Room

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Submitted in partial fulfillment of the requirements for graduation
with honors in the Bryant University Honors Program
April 2019

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ABSTRACT

This paper proposed that despite the benefits of weightlifting, especially for women, that an uneven gender divide still exists in the weight room. It was also proposed that the masculine culture of the gym deters women from lifting. It was found through an observational study that there were four times more men than women in the weight areas of gyms. It was also found that women are more uncomfortable than men when their physique is being examined and that lifting women identify more strongly with traditionally "masculine" personality terms than non-lifting women do. Women cite a lack of knowledge, a fear of judgement, and unwelcome attention from men as causes of discomfort in a gym environment.

INTRODUCTION

Contemporary American gyms offer their customers several different pathways to fitness. A typical gym will house cardiovascular training equipment such as treadmills, elliptical, and stationary bicycles, weights (either free or attached to machines), and even group fitness classes. It has been established that typically there is an uneven gender divide favoring males in the weight section despite an even number of each gender attending the gym (Dworkin, 2003). Previous research states that at any given time there may be a 90/10% or 80/20% gender split in the weight room (Dworkin, 2003). Women tend to outnumber men in the cardiovascular room, but there are still proportionally more males in the aerobic training room than there are women in the weight room (Dworkin, 2003). It was found that many women use the cardiovascular room because they believe it will allow them to be physically fit while maintaining the "ideal" feminine physique (Dworkin, 2003). The desire to achieve a slim, toned body could influence women in their decision to use the weight room in the gym.

Despite these concerns about maintaining a desirable physique, the American Heart Association (AHA) sets recommended guidelines for weekly exercise regimens for optimal heath benefits for both genders. The AHA recommends 150 minutes per week of moderate aerobic activity or 75 minutes of vigorous aerobic activity in addition to strength training for all muscle groups two times weekly. Strength training includes moving muscles against a resisting force, such as weight. The benefits of strength training include weight management, building muscle mass, building cardiovascular endurance, and building bone density. Increasing bone density is of special importance to women who lose bone density at an

accelerated rate as they age. Since weightlifting should be especially beneficial to women, why does the gender discrepancy in the weight room still exist?

Historically, gyms have been seen as masculine institutions (Craig & Liberti, 2007). Physical fitness and bodybuilding was marketed towards men specifically. However, recently, there has been an uprising of all-female gyms. A previous study indicates that women-only gyms may be popular because of the sense of non-competition they foster (Craig & Liberti, 2007). Female gyms may use technology and staff to provide instruction for machines, and encourage a community feel. In one, exercise equipment was arranged in a circle to allow the women to interact with each other while working out (Craig & Liberti, 2007). Many customers of the female-only gym reported feeling more comfortable in the environment, so the masculine feel of traditional gyms may be a deterrent for women using the weight room.

There are many factors that could influence women's motivation to use (or not use) weighted equipment in the gym. This research project hypothesizes that there still are more men using the weight room than women, and that the masculine culture of the gym is contributing to the lesser number of females using the weighted equipment.

METHODS

This study used a mixed methods approach to gather the desired data. An observational study was conducted in gyms to confirm the continued gender discrepancy in the weight room. A survey was also conducted to ascertain exercise patterns, routines, and self-perceptions of personality traits.

Observations were conducted in half-hour sessions at two different gyms; the student gym at Bryant University in Smithfield, RI and Healthtrax in East Providence, RI. Permission was obtained from administration at both gyms after IRB approval. Five observations were held at both locations, each at different times of the day. The observations tracked the number of each gender using the weighted equipment in the gym. Weighted equipment was designated as any free weight or weight machine in the designated weight area. This definition excluded equipment such as kettlebells and medicine balls, which are traditionally housed near the cardiovascular or abdominal training area. The setting of weight use and the use of partners was also observed.

A self-report survey was sent to members of the Bryant University and Healthtrax community for a convenience sample. Participants were also asked to share the survey with their acquaintances, constituting a snowball sampling technique. The survey included questions about the participant's demographics, gym use habits, and weightlifting habits and experience. The survey also included the Social Physique Anxiety scale (Hart et. al., 1989), which measures social anxiety related to physique, defined as fat percentage and muscle definition on the participant's body. The survey also included the Bem Sex Scale Inventory (Bem, 1974), which asked the participant to indicate how strongly they identified with terms that are associated with traditional gender roles. The survey ended with a qualitative item asking the participant to share a time they might have felt psychologically uncomfortable in the gym if they desired.

RESULTS

Five half-hour observations were carried out in each gym location. The observation dates spanned the month of March 2019 and occurred at several different times during the day (8 am, 2 pm, 5 pm, and 8 pm). The number and gender of weight room users were observed, as well as the setting of the weight use. Table 1 contains the observational data from Bryant University, and Table 2 from Healthtrax.

Table 1. Observational data from Chace Athletic Student Gym, Bryant University, Smithfield, RI.

Time	# of men	# of women
2:00 PM	18	4
5:00 PM	27	4
8:00 AM	5	1
8:00 PM	25	8
2:00 PM	15	3
Total	90	20

Table 2. Observational data from Healthtrax, East Providence, RI.

Time	# of men	# of women
8:15 AM	7	2
7:45 PM	14	1
2:00 PM	3	1
9:00 AM	8	3
8:00 AM	3	1
Total	35	8

It was found that there were significantly more men using the weight room at both the Bryant University gym (p= 0.0156) and Healthtrax (p= 0.0180).

The survey yielded 169 completed results. The participants were 82.2% female and primarily 18-22 years old. The demographic sample was also 84% Caucasian, 7% African American, 6% Hispanic, and 6% Asian. 54% of the sample reported going to the gym consistently.

The survey results were sorted into four categories, first into male and female, then into lifting and non-lifting. It was found that 73.3% of men reported lifting compared to only 53.1% of women. When examined further, 100% of men that reported going to the gym consistently also reported lifting weights as part of their workout routine. There was also a strong correlation between being an NCAA athlete and lifting weights. 87.7% of current or former NCAA athletes reported using weights in their workouts. When female athletes were screened from the results, only 41% of women reported weightlifting.

There were no significant differences between the scores for women who weightlift and those who do not on the social physique anxiety scale for women. However, there were two near significant results. Women who lifted responded more positively to the questions “I usually feel relaxed when it’s obvious that others are looking at my physique or figure” (p= 0.0667) and “I am comfortable with the appearance of my physique or figure” (p= 0.0726).

There was a significant effect between men and women for an item on the social physique anxiety scale. It was found that women scored significantly higher on the question "It would make me uncomfortable to know others were evaluating my physique or figure" ($p= 0.0047$)

There were two near significant results and two significant results for the scores on the Bem Sex Role Inventory. There was a nearly significant difference in scores between women who lifted and women did not for the terms "Assertive" ($p= 0.0953$) and "Willing to take risks" ($p= 0.0687$) where lifting women scored higher. Additionally, there was a significant difference with lifting women scoring higher for the trait "Dominant" ($p= 0.0500$). Non-lifting women scored significantly higher than lifting women did on the term "Soft-spoken" ($p= 0.0074$).

Men consistently scored highest on the stereotypically "masculine" traits, while non-lifting women scored the lowest. Non-lifting women consistently scored highest on the traditionally "feminine" sex role inventory items while men scored the lowest. Women who lifted scored themselves in between non-lifting women and men for both "feminine" and "masculine" traits.

The responses to the qualitative question "If you are willing to share: was there a time that you felt psychologically uncomfortable in the gym? What caused the discomfort?" yielded answers that could be sorted into three different categories. 21% of respondents cited lack of knowledge of gym equipment to be the source of their discomfort. For example, one participant shared that she felt psychologically uncomfortable in the gym when "attempting to

use the leg machines which I never have before." 30% of respondents said that their main source of discomfort in the gym was comparing their bodies to others or feeling like others were judging their body or activities. For example, one woman stated that she felt discomfort in the gym when she was "judging her own body in the mirror." 49% of responses claimed that actions of men in the weight room were the source of their discomfort. These respondents told stories of men staring in an inappropriate manner, making unwelcome advances, or even touching the respondent to gain her attention. As an example, one woman stated that she was uncomfortable in the gym while "going to certain areas of the gym that were male dominated and feeling like I was being judged by them or stared at," while another said men were "staring while lifting free weights and taking pictures/videos of me working out." All of these factors culminated in a mental state of distress for women in the gym.

DISCUSSION

The results of the observation reaffirmed the results of Dworkin in 2003. There were comparable numbers of men and women in the gym, but many more men were using the weighted equipment. The observational data supported the initial hypothesis that men still outnumber women in the weight room. It was also noted that in some circumstances, women would take free weights from the weight section of the floor and use them in different areas, such as the mats for abdominal exercises. This could support the idea suggested by Craig and Liberti in 2007 that the weight room is a masculine environment. In this case, the women might be circumventing the masculine environment by removing the weights to a more gender-neutral environment.

The survey results showed that there was a strong correlation between current or former participation in NCAA athletics and weightlifting. This could be explained because weight lifting is required from most school-sponsored athletes. Many NCAA teams have a specific weight lifting coach assigned to them who teaches the athletes proper form and designs workouts. The mandatory workouts and expert guidance could explain the strong correlation between status as an NCAA athlete and weight lifting.

There was an almost-significant difference between the scores of women who lift and those who do not on two items of the social anxiety physique scale. On both items, the lifting women indicated that they were more secure with their physique. Since the effect was not quite significant, this could be due to chance. However, if there was an effect, it is unclear in which direction. Weight lifting may have a positive effect on women's self-perception of their physique, or women who are already more secure in their physique may be more likely to weight life. A larger, more diverse sample size with more targeted questions would be necessary to untangle this cause and effect.

The results also showed a significant difference between men and women's attitudes between their physiques being examined. It was found that women are much more likely to be uncomfortable when others evaluate their physique. There could be many reasons that women are uncomfortable with others evaluating their physique, but this result suggests that men might be more willing to evaluate a woman's physique because the same behavior from women would not make them as uncomfortable. According to the results of the qualitative question, a large part of what makes women uncomfortable in the gym is unwanted attention

from men. If men really do approach women because they do not understand that it generally makes them uncomfortable, an education approach may be helpful. If the patrons of the gym were clearly aware that their advance were unwanted while another patron was working out, it could potentially make the gym experience more pleasurable for everyone.

Reponses from the Bem Sex Role Inventory showed that, as expected, men identified more strongly with the traditionally "masculine" traits. However, non-lifting women identified more strongly with traditionally "feminine" traits than lifting women did. Lifting women had scores more consistently in the "androgynous" range, between the scores of men and non-lifting women. Again, it is unclear in which direction this relationship lies, but it could be due to the fact that gyms are seen as masculine institutions (Craig and Liberti, 2007). Women who perceive themselves as identifying with traditionally masculine traits could be more comfortable in the masculine weight room. However, using the weight room could have also caused lifting women to see themselves as possessing more masculine traits. More targeted research is needed to determine the direction of this relationship.

The responses to the qualitative survey question revealed three main areas of psychological discomfort in the gym for women. The first major area of discomfort was lack of knowledge of how to use the equipment in the gym. Young men can be taught to lift while participating in high school sports, or even earlier in some cases, but it seems that the same emphasis is not stressed in women's sports. Most survey respondents indicated that they lead their own workouts, so if a woman is uncomfortable with the technique, she will most likely not include

it. Teaching women to weightlift could increase confidence in the weight room and allow them to develop their own workouts that include weighted exercises.

The second major area of concern for women in the gym was a feeling of judgement, from either themselves or others. Several women stated that they compare their own bodies to others they see at the gym and feel uncomfortable. The social physique anxiety scale also indicated that women tend to feel more social anxiety when they feel as if others are judging their physique. This discomfort could be compounded if the person judging the woman's physique is male.

The source of discomfort that was most mentioned was male presence in the weight room. Many women cited feeling uncomfortable in such a male dominated space. The women participating in the study almost always saw men in the weight room as more experienced than themselves, solely based on their gender. Women in the study felt like they did not belong in the weight room, a place that they have every right to be. A supportive community of resources and other like-minded women could help females overcome the masculine culture of the weight room than so many women find deterring.

CONCLUSION

Women today face many barriers to breaking through into the weight room. The traditionally a male-dominated space can feel intimidating and overwhelming to women for many reasons. Many women cited lack of knowledge as a reason they abstain from weightlifting. Developing a group fitness class that centers on teaching women to lift could help to

overcome this barrier. Private trainers can teach women to weightlift, but women often prefer a supportive group environment (Craig & Liberti, 2007), and at a fraction of the cost. Since women often thrive in a supportive environment, it might also be beneficial to start an accountability/workout buddy program that pairs women together to workout. During the observational study, most women did not lift with a partner. Designing a program to pair lone lifters together could offer support in the male space of the weight room and offer the supportive environment found in female-only gyms (Craig & Liberti, 2007).

The final recommendation to ease women's discomfort in the weight room is to post anti-harassment literature in the gym. Many women mentioned unwanted contact with men as a deterrent for using the weight room, and posting anti-harassment signs around the weight room could discourage that type of behavior. It could be helpful to post the same literature in the men's locker room as well. Additionally, resources for women who have faced unwanted contact in the gym should be posted in the locker room. The posted literature could help women feel supported in a traditionally masculine environment.

There were several limitations to this study, including the small, limited sample size. In order to be externalized, the sample size should be larger and the observations should take place at a larger number of gyms. Ideally, the gyms should be in different geographic areas to ensure the difference remains consistent. Additionally, the qualitative survey question would have been better posed as an interview question. More data could have been gathered through an in-person interview.

In the future, it would be helpful to add female-only gyms to the observational study. The ratio of total women attending the gym to the women lifting could help to define the role of the masculine culture of the gym in female weightlifting behavior. Future research projects could also center on developing an education intervention teaching women how to weight lift. If women had easily accessible resources to teach them how to weight lift, it could help them incorporate weighted exercises into their exercise regimen. Weightlifting is beneficial to both genders, and with continued research and implementation, the gender imbalance in the weight room can be lessened.

ACKNOWLEDGEMENTS

The author would like to thank the following people, without whom this project would not have been possible:

Faculty Advisor Dr. Ronald Deluga:

Editorial Reviewer Dr. Christine McAuliffe

Matthew VanBuren, Healthtrax

Bryant University Softball

David and Dylan Norris

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