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Women and Weight Training

Abstract

There are many motivational factors or barriers that effect women to weight train at a recreational standard. In this research, weight training is any use of resistance machines, bands or the lifting of weights. Through this research, the question of how do women who weight train differ from those who do not in a physical, mental and social aspect is answered. Furthermore, this research identifies what the specifics are refraining women from weight training and how to make these barriers motivate women to weight train based off of all the positive benefits it has for women. The theory that helped framework this administered research was the social role theory which specified the role of society on masculinity and femininity. There are prevalent themes that were raised with this research and they include the impact of gender roles, masculinity, barriers and motivations through the practice of weight training. These resulted in the findings of the conducted research proving how there are still inequalities present regarding women in society who weight train. Results also show how the lack of education of weight training has been the major barrier of women participating in weight training. The common barriers that arise from this theory helped to set up the motivation of goals by women to overcome such a barrier. Also, the findings in this research suggest that there are more barriers than motivations and how women need to develop goals to help motivate them to weight train. The methods conducted took a post-positivism research framework where there was a mix of qualitative and quantitative data. This mix of data is gathered to understand the why and how women weight train based on the female participants. There was a conducted survey that was given to every other woman in the lobbies of Planet Fitness in Victor, NY and Penfield Fitness in Penfield, NY. This research could potentially help the gym understand their female clientele and there was an offered incentive if the woman agreed to take the survey and participate in the research. This research is in the midst of implicating women to see the health impact that weight training can have for an overall physical, mental and social aspects of life. Also, to bring awareness of the inequalities that are still present in today's male dominated activates and sports.

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Women and Weight Training

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and social aspects of life. Also, to bring awareness of the inequalities that are still present in today's male dominated activities and sports.

Introduction

There is a need of weight training for women on a regular basis. Physical activity is not just an option but a necessity for health. There is more to a weight training workout which is how it can be a "stress relief and enhanced health; the muscular physique would be valued and aesthetically appreciated; and the basic principles of bodybuilding—balanced diets, adequate sleep, fresh air, sunshine, and regular workouts—would be recognized as essential to healthy living" (Shurley & Todd, 2012, p. 4). Documented in a study by Nowak (2008), it states that in the hierarchy of values for physically active women were first health and then family in second with physical fitness fluctuating in the middle of the scale. Women need to see that physical fitness does have a higher value in one's life and women should recognize this more frequently.

Instead of using all cardio machines, women need to start using free weights more frequently when at the gym. According to Juhas (2011), women are subjected to the use of weights and are frequently found doing more cardio than weight training. Women need to train more with weights if they want to see the effects of a toned body and an improved overall health performance.

The research question that was asked is how do women who weight train differ from those who do not in a physical, mental and social aspect? The topic that was researched was what the motivational factors or barriers were of women who weight train at a recreational standard (which is just at a local gym or with a personal trainer) and those who do not weight train. The specific barriers that are stopping women from weight training is what was explored through previous research and a conducted survey. By finding out the barriers refraining women from weight training, one can discover the ways in which to help motivate women to pick up the weights when at the gym.

This unique topic is practical because it can be applied to any woman who goes to a gym or works out in general. For an academic standpoint, this research is beneficial because it can prove where as people we still need to do a better job with our gender roles in society. Society places gender roles based on specific characteristics of either, masculine or feminine based on if you are a male or female. If the other gender crosses the gender role line, as a society we tend to judge others by stereotyping. Also, women need more education to the benefits of strength training, and my research will help educate women and hopefully motivate women to participate in weight training (Prentice, 2002).

Literature Review

Weight training has been around for centuries and has continued to grow as a sport as well as a recreational exercise routine. There are so many exercises to help strengthen the body. Weight training is traced back more than 4,000 years ago, approximately 2040 BC. The illustrations on the tomb of Egyptian Prince Baghi, and the writings of the Greeks show man throwing stones or haltering up rocks which indicates the value of strength and resistance training. We can learn how strength and power gained popularity back then as it does in the modern era (Stone, 2006).

What exactly is weight training? Stone (2006) cites how “weight training is a general term and a type of resistance training used to describe methods or modes in which a load (weight) is actually lifted: this could include free weights or a weight stack” (p.50). The characteristics of a weight trainer include strength, rate of force development and power. It is noticed how “the role of women play in this subculture, while recent, is substantive-filled with the clash of opposing cultural representations and the odd, sometimes cruel, drama...”(Klein & Slater, 1985, p. 68).

As Title IX came around which is the notion for equal opportunities in sport for women in society, the controversy of eliminating gender roles has been argued according to Simson (2011). It is stated how athletics are the “ framework, based on the concept of equal opportunity, for understanding what it might reasonably mean for a society to be “gender free.” It then argues that overall equality of

opportunity requires equality of athletic opportunity, and that, despite its successes, Title IX's failure to repudiate gender influences makes it unlikely that, in its current form, it will ever lead to equality of athletic opportunity" (Simson, 2011, p.3). The creation of equal opportunities for gender specific sports such as weight training gives women the access of participating in a male dominated physical activity. Title XI brings women's involvement in sports as a way to eliminate sexual discrimination based on assumed created societal gender roles.

How a woman sees her body is mostly reflected based on what society perceives it to be as stated by Liimakka (2011). A woman can feel that her body is alienated from society if it does not appear to be the normal body. It is noted that "many girls and women relate to their bodies by regularly monitoring their physical appearance, yet feel dissatisfied and ashamed when attempting to shape their bodies to fit cultural ideals." (Liimakka, 2011, p. 441). Young women transform their bodies because of the way society wants them to look like. According to Liimakka (2011), physical activity can facilitate empowering body experiences that can help women overcome the habitual body that society is after. Research has shown that "participation in sport, exercise, and physical activity can increase women's physical competence, perceptions of a competent self, and feelings of bodily connectedness... Women have described how engaging in physical activities has given them a more empowered experience of their bodies. Physical activity produced positive effects which can have an influence beyond their context." (Liimakka, 2011, p.444). The positive embodiments women receive from physical exercise help create a burst of positive energy that accumulates toward the future of a women's total body experience.

The previous paragraph brings the assumption of how females critique the way in which what is the difference between being fit or fat. Indeed, Title IX and using weights have helped open up opportunities for women's personal body empowerment, but this type of critiquing fitness has a connection to want to be skinny and not muscular. The identities of women who are larger or muscular

are considered fat according to the research conducted by Scott-Dixon (2008). This type of fitness mindset “discourages women from getting too big, muscular, or powerful and from participating in unfeminine sports such as boxing, football, and weight lifting. Concluding this thought can be noted by arguing that strength-and-power-based sports provide a possible model for articulating a feminist politics of empowerment through activity that is not dependent on negatively disciplining the body nor achieving thinness/leanness.” (Scott-Dixon, 2008, p. 27). A powerlifting world champion states that she was bullied for being larger but enjoyed lifting weights as she quotes from the Scott-Dixon (2008) article, “building muscle and feeling good from both the physical rush of working out, as well as from the accomplishment of lifting more than before and knowing that I am a little bit better today than I was yesterday.” This can prove that weight training not only allows women a level of accomplishment, it encompasses being fit and healthy with your body.

The effect of gender in sports is made clear in the media according to Jones and Greer (2011). The results of their research conducted on how the media messages female athletes in sport and how respondents reacted to it, showed that “men respond more favorably to female athletes who conform to gender stereotypes for their sport, whereas women favor power in female athletes. Sex-typing of the sports, however, remains firmly entrenched in audience attitudes even immediately after being exposed to an image incongruent with gender stereotypes for that sport.” (Jones & Greer, 2011, p. 358). Society forms expectations of individuals through stereotypes and norms. If the norms are not present, some people have a hard time accepting them and automatically judge them. Society wants females to stay in gender appropriate-sports so they stay feminine. When women go outside of their featured sports, they are stereotyped as masculine and not credible athletes (Jones & Greer, 2011, p. 361). Also women who weight lift are categorized as “feminists who work on physical activity and leisure has suggested that participation could either be a means of empowerment for women or a vehicle that engenders conformity to patriarchal notions of the female form” (Brooks & Magnusson, 2007, p. 85). The

relationship between physical activity and women come down to how they are being portrayed in the public's eye. Research states how it is difficult to justify when female athletes partake in male dominated sports such as weight training. They are usually rejected and placed in stereotypes, but women are still able to get some empowerment. Taken from Brooks and Magnusson (2007), "women's physical activity can be a significant empowering experience with respect to the amelioration of the stressful aspects of their lives. Overall, physical activity for young women can be a leisure space that they perceive has profoundly positive implications for their health and well-being." (p.85).

Why weight train? It is noted in Elizabeth Quinn's article that, "the number of women who actually participate in any formal or consistent weight training workout is still extremely low. Most women who exercise are spending most of their gym time on cardiovascular exercise" (Quinn, 2011, p. 1). Without going too much in depth yet, there are ten simple reasons why women should lift weights. Quinn's (2011) study has shown that you will be physically stronger, you will lose body fat, you will gain strength without bulk, you decrease your risk of Osteoporosis, you will improve your athletic performance, you will reduce your risk of injury, you will reduce your risk of heart disease, you will reduce your risk of diabetes, it is never too late to benefit and you will improve your attitude and fight depression. All of these reasons are beneficial to women who want to be healthy and conscious of their body. These ten reasons just touch on all the wonderful ways weight lifting can impact a women's life in a positive manner.

Gender Roles

According to Park Sang (2012), "gender roles have been highlighted as one of the important variables in personal adjustment because it accompanies social expectation about the inherent role of male and female and also influences not only on the evaluation about the other person but also on the formation of self." (p.105). The relationship between gender roles and exercise participation behavior note that the "characteristics of males are competitive, active, and aggressive, while those of females

are passive and non-competitive.” (Park Sang, 2012, p.106). Female participation in physical activity has been recognized “as an essential element to participate in the exercise for the enhancement of quality of life and psychological well-being, in these days, the research to predict and to evaluate the; exercise participation behavior of female has been actively progressed.” (Park Sang, 2012, p.99).

Gender roles are very important because they set up the behavioral and social norms in society. What is considered appropriate for a man or a woman to do is all based on cultural factors that place specific behaviors that each gender should claim. Specifically, in sports the gender gap has not evolved since 1983 according to (Thibault, 2010). Hardin and Greer (2009) research has contradicted Thibault’s statement because the gender gap is, key word very slowly, decreasing as female athletes are making their appearances with ‘masculine’ sports such as hockey, MMA, NASCAR and golf. These sports are considered masculine simply because society has made it that way. As noted in Im, Lee, Chee and Stuijbergen (2011) article, “because our patriarchal culture often prescribes women to preserve their vital energy for childbearing and socializes them to be ready for the wife-and-mother role, feminists believe that our culture has discouraged women from participating in physical activity” (p.313). This is discouraging for women in our culture because of the gender roles that are placed on them. Still women play masculine sports feel, “inferior to male players, and could never be as good as them. (Hardin & Greer, 2009, p.207). Even when women are able to partake in male dominated sports, women still feel like they cannot keep up due to their lack of physical size, which is why weight training can help women feel more of an empowerment when they play these male dominated sports (Hardin & Greer, 2009). The real problem is that “women are doing their best by motivating themselves through multiple strategies, but that culture itself needs to be changed to help women increase their physical activity” (Im, Lee, Chee, Stuijbergen, 2011, p. 319). Research shows how society “fears women who step outside of traditional feminine spaces will turn into men...” (Patton, 2001, p. 138).

As stated from Capranica (2013), “sport is recognized as playing a relevant societal role to promote education, health, intercultural dialogue, and the individual development, regardless of an individual's gender, race, age, ability, religion, political affiliation, sexual orientation, and socioeconomic background” (p. 99). The gender gap in sport remains because of the differences in stereotypes that people place on genders. Globally and culturally, gender roles are differences that affect female performance in male dominated sports. The theme of femininity and muscularity leads critics to force stereotypes on these women. Even in the media, women are often seen to be sexual icons and not portrayed as their athletic self. Quoted from Fink and Kensicki (2002), “female athletes continue to be constructed in stereotypical and traditional conceptions of femininity that supersede their athletic ability. It is suggested that this generally inoffensive, status-quo approach has been continued in order to maintain marketability” (p. 317). The role of women in sports is still to be an attractive icon that is submissive to the jock male athletes. However, there are still women out there who are rebelling against what society deems normal and as McGrath and Chananie-Hill (2009), state “women’s insistence on increasing their muscularity and strength and their refusal to allow significant others to determine their level of participation in a sport is considered deviant for women to contribute to a slow but growing societal acceptance of visibly muscular female bodies as within the “normal” range of possible femininities.” (p.251). This gives female weightlifters hope that the progress toward the freedom of gender roles will be eliminated in the future. Based on research, overall sport is supposed to bring genders together for the love of the game but still has some development for sport to become equal to all. As culture changes, so do the roles of women in sports. Looking into the future, hopefully with the changing of societal gender roles women can be more prominent in our society in sports (Capranica, 2013).

Masculinity

The role of masculinity in weight training is prevalent because of the characteristics or roles that are generally considered typical with this activity. Masculinity is defined as "...characteristics of a traditional male..." (Allred, 2012, p.241). It is assumed that women who weight train or body build are considered masculine because of their physical appearance.

Both males and females have the drive for muscle tone and muscularity according to research conducted by Wojtowicz and von Ranson (2006). However, both genders perceive muscles differently as "women may perceive muscularity as not closely related to body weight and shape concerns, whereas men may perceive them as more strongly related" (Wojtowicz & von Ranson, 2006, p. 65). Women are typically trying to seek how to become thinner, where men have the strong desire to increase their weight of muscles. In a male culture, the increased muscles are desired norms. For females, "girls perceived pressure to increase weight and increase muscles as well as to decrease weight." (Wojtowicz & von Ranson, 2006, p. 57). The body image that is placed on females is confusing and inappropriate in a sense that it does not make any logical sense to increase muscle and also decrease weight. Society places contradicting norms for females on their physical appearance.

The raised concern of the construction of how sports are laid out is becoming an issue because of masculinity. Female athletes are easy targets to be sexualized and not taken seriously in what they do. It is noted in Pringle and Hickley (2010), that men reject women in the world of sports. Specifically, women who weight train are critiqued by men. Morality in sports is another issue that needs to be addressed because the aim of sports is the participation of all according to Pringle and Hickley (2010). Men need to see that, "the aim of such an exercise is not to realize that one is somehow trapped within a coercive sporting framework but to reflect on potential practices of freedom that could allow the self to move within existing power relations and in relation to moral codes" (Pringle & Hickey, 2010, p. 134). Women have every right to partake in what men do, yet sadly, societal norms have restricted this by

setting gender roles (Hardin & Greer, 2009). Masculinity does not need to be defined to only one gender. Women, who can lift weights or play sports like men, should not be given a stereotype title other than a female athlete.

As a segway to the next part of prior research, there have been some weight training and lifting myths that females tend to believe which makes them stray away from using weights. From the (Rivera) article it is believed that “weight training makes you bulky and masculine...due to the fact that women do not, and cannot, naturally produce as much testosterone as males do, it is impossible for a woman to gain huge amounts of muscle mass by using weights.” Women who use weights get a firm athletic toned looking body. Another important myth from the (Rivera) article is that “women only need to do cardio and if they decide to lift weights, they should be very light...muscle responds to resistance and if the resistance is too light then your body will not change.” In order to get muscle tone, women need to train hard and use weights and they will still keep their feminine physique. There needs to be some education on the proper amount of weight for each woman who weight trains because of the different needs and wants one can receive from using weights.

Barriers

There are also barriers that get in the way of women using weights to exercise. According to Harne (2005) the one major barrier to weight training is time-effort and thinking one is not physically strong enough to strength train. As cited from Haines (2008), women don't participate in weight training because of the straight facts of there being “too many people, intimidation, and the number of men who lift” (p.237). In Louw and Mugandani (2012) article some of the “common barriers for exercise included 'lack of time', focus on 'other priorities', the perception that 'daily routine provides a workout', 'lack of energy' and because of 'health issues'. Barriers to exercise among the groups included, 'I don't have an exercise partner' which was more of a concern among younger groups and a 'lack of knowledge' which was more prevalent among the senior groups” (p.759).

According to Haines (2008), “women impose a ‘glass ceiling’ on themselves regarding weight training. This ‘glass ceiling’ discourages many women from participating in an effective weight training program” (p.238-239). It exists because of gender roles, stereotypes and masculinity factors. When women think about weight training, they automatically think about huge women bodybuilders. It is noted in Haines (2008) article how when women think of huge bodybuilders, they don’t consider that most of the time when a female is as large as a male that performance-enhancing drugs are being used (p. 239). Women have genetically a smaller body frame than males which is extremely difficult “for women to gain as much muscle mass as men due to the smaller quantity of testosterone in the female body, which prevents women from adding muscle mass as quickly as men” (Haines, 2008, p. 139).

Traditional gender roles restrict women and different approaches need to be practiced so that women who weight train are given an opportunity to without being judged by society. As stated in Ebben & Jensen (1998) research, “men and women are nearly equal and women who practice the same well-designed strength training programs as men benefit from bone and soft-tissue modeling, increased lean body mass, decreased fat, and enhanced self-confidence” (p.86). Women can practice weight training just like men and see similar results to their physical, social and mental aspects of life. An assistant professor of philosophy at Elon University, Anne Bolin, has taken on the whole concept of gender roles and went against what society tells her she can’t and is a bodybuilder. She quotes, “for women to lift weights continues to be a subversive act...we’re moving ahead in social, economic and political arenas, and our bodies are the last frontier for us, the last place for us to gain equity and do what we want.” (Terris, 2009). Strength is gendered and Bolin is moving in the right direction to rid of gender roles.

There seems to be culture dissociation between women and weight training that has women more accustomed to do aerobic exercise than weight training. This concern brings up the discomfort women tend to have in the gym due to the fact that women are not supposed to lift weights because

lifting weights is a man activity. For different races it is interesting to consider the different barriers or excuses for lack of physical activity. According to researchers, Im, Lee, Chee and Stuifbergen (2011), "the main reason for the inactivity is that White women in the United States reported being too tired or self-conscious, African Americans reported lacking a safe place to exercise or walk, and Hispanic Americans reported a lack of time and being too tired" (p.313). Around the world, many cultures believe that the use of weights would violate gender expectations. "The cultural ideal of feminine bodies discourages women from weight lifting."(Salvatore & Marecek, 2010, p. 565). Mainly, the barriers that refrain women from weight lifting are as follows: "...that women's relationship with weight lifting may involve a number of self-perpetuating cycles. First, women may avoid gyms (or weight training areas of gyms) because they see them as masculine spaces; the absence of women reaffirms the gender coding of those spaces and thus, serves to perpetuate women's avoidance of them. Similarly, many women may avoid weight lifting because they see it as a masculine activity; the small number of women lifting weights in turn reaffirms the gender coding of that activity. Furthermore, if women seldom lift weights, they will not become proficient with the equipment; lack of proficiency contributes to concerns about being seen as incompetent or inept." (Salvatore & Marecek, 2010, p.565). Supporting this statement is Cokorilo, Mikalacki, Rakic and Radjo (2012) and they state how "women have a concept of the area for exercising with weights, popularly called "a gym", as a male territory. They are also afraid of losing their femininity by getting an increased scope of muscles. In a nutshell, they are afraid of counter effects in comparison to the ones they expect to get by exercising. One of the reasons for that is certainly the lack of knowledge about the problem, as well as neglecting it. Exercising in a gym mainly aimed at male population and all programs and types of trainings are adjusted to their needs" (p. 2526). This is proving how gyms are biased and are tailored of meeting the needs of males instead of females.

Women seem to find themselves running into a wall of stereotypes that hold them back from their work performance. A "stereotype threat is the risk of confirming a negative stereotype about one's

group as being true of oneself” (Bergeron, Block & Echtenkamp, 2006, p. 133). The negative stereotypes that are placed on women who do specifically male dominated activities are proven that women underperform. It was found in Bergeron, Block and Echtenkamp (2006) study that women are affected with masculine roles that threaten their femininity. The stereotypes have detrimental effects on a women’s work performance and also puts a strong barrier on women in general.

According to Hristo (2012), women are lacking the proper knowledge of strength training equipment in the gym. Weight training machines can only benefit a person if they know how to use the machine. Recently, people have been using strength training as a way for “improvement of muscular functional capacity, systematic prevention and lowering the hazard of cardiovascular diseases by reduction of the body fat percentage are often mentioned as positive effects of strength training” (Hristo, 2012, p.562-563). It would be beneficial if women first understand the proper way in which the strength machines operate so that there is injury prevention. Hristo (2012) study suggest that there needs to be some type of sensory system in all strength training machines or some more education needs to be taught to females, so that they would feel comfortable to approach a machine and use it to benefit their work out.

Benefits

Women in general, engage in physical activity for a variety of reasons which are driven by motivational actions of behavior. The women who have the push to weight train are more than likely going to see results if goals are set. Goals are helpful in pushing women to be motivated to use weights more in the gym as Hannus (2012) states. Exercise is a natural activity in people and it is becoming a programmed activity for us to participate in. Training with weights should be an intrinsic motivation that helps sustain exercise activity over time according to Ryan, Frederick, Lipes, Rubio and Sheldon (1997).

As women go to the gym, they need to have a set plan and must show consistency in order to get results. When women use weights to exercise they are highly activating their overall health and

maintaining their bodies. Research shows how instead of burning off all of muscle mass with dieting, to improve body physique is all through the toning of the body through weight training. In the Salvatore and Marecek (2010) article it states that “weight lifting is beneficial to the physical and mental health of both men and women. Well-toned muscles contribute to overall fitness and increase metabolism. They also help cushion the body from the effects of illness and slow the normal process of aging...and that weight lifting can provide a partial buffer against psychological conditions that are common among women” (p. 557). Some examples of some of the mainstream psychological mental disorders are eating disorders, depression, and body dissatisfaction. In the article done by MacLeod (2010), weight training helps tone the body while boosting your metabolism and building bone. Using weights also lowers cholesterol because the more one pushes themselves to get stronger the better off the body will be. This is especially true for athletes, of the benefits that weight training has shown in Gilson, Graig and Martha (2008) research of, “increased strength, improved speed, increased neuromuscular coordination, and increased resistance to injury” (p.221). Also, women athletes see how “strength training is a unique achievement arena in the sense that personal improvement is stressed by coaches, training sessions are mandatory for all athletes, and athletes must complete all tasks during each session...the motivational climate may have had a significant interaction effect on individual achievement goals” (Gilson, Graig & Martha, 2008, p.232). Weight training for women athletes allows for better advancement in their sport and in society through contradicting societal norms.

It is also important for women to understand how exercising with weights will help lose fat tissue and help keep your muscle mass toned. A study done by the University of Pennsylvania proved that “strength training can prevent increases in body fat percentage and attenuate increases in the fat deposit most closely associated with heart disease...and overall saw a body fat digression of 4%”(Lifting Weights Attacks Unhealthy Belly Fat in Women, 2006, p. 8). Research completed by Cullinen and Caldwell (1998), proved that when women participate in a moderate to intense weight training program

there is proof of decrease body fat. The findings suggest that weight training is more beneficial than dieting because of the achievable body composition with weights and the healthy lifestyle it leads. This is however supportive in the Cokorilo, Mikalacki, Rakic and Radjo (2012) article which states that when using weights it “offered satisfactory results for women, in the sense of decreasing percent of adipose tissue and the total body mass, without increasing muscle mass. This type of exercise with weights can certainly offer women better physical appearance and to stay in good shape” (p. 2531).

The strength of a woman in the gym shows her “access to domination is contained through the gendered nature of gym space and a masculine approach to training. Strength training is not only a source of self-identity, but it is also a site of collective experience and enforced norms of affective behavior” (Brace-Govan, 2004, p. 503). It is important for women to accept that hard work in the gym and in training will only help social norms change. Women who participate in strength training have seen an increase in health motivational benefits. According to Harne (2005), “gender differences were not highlighted as a possible moderating factor for deriving benefits from strength training, suggesting that both men and women should participate in strength training...and research shows how women can benefit both physiologically and psychologically from a strength program” (p.152). Harne (2005) stated that strength training allows women to increase muscular strength and lean body mass. For older women, strength training helps the skeletal muscle to help prevent age related bone losses. “Among women of all ages, strength training also enhances the ability to carry out activities of daily living” (Harne, 2005, p.152). Other motivational factors are that women who weight train have a higher self-esteem, self-concept, body image and overall health (Harne, 2005). Recently, according to Plosser (2012), she insists that strength training is where it is at for training and suggest to ditch cardio altogether. With strength training, there needs to be a set discipline and strict devotion for results to take notice. Overall physical strength will show when using weights and it will be beneficial notes Plosser. Her research has shown how, “lifting weights gives you a metabolic spike for an hour after a

workout because your body is trying to help your muscles recover. That means more calories are being burned off". A 2006 study by the National Institute of Health has "found that lifting weights just twice a week can prevent you from gaining intra-abdominal fat-the kind that wraps around organs and constricts blood vessels" (Plosser, 2012, p.2). This ultimately leads to a longer healthier life.

In Grogan's (2004) article, real women who use weights in the gym talk about how weight training has affected their lives, physically, mentally and socially. How societal gender roles have discovered what the typical female body type should look like and the underlining theme of if one is not skinny, and are toned with muscle, then they have a masculine body physique. The weight training that women deal with is the "social pressures to become more muscular (and not to become more muscular). Women's accounts were complex and in some cases apparently contradictory, for while emphasizing freedom to choose to be muscular within a cultural context where slimness is the norm, they stressed the importance of aspects of traditional femininity" (Grogan, 2004, p.49). Mentally, societal gender roles put pressure on women to meet such specific standards that women tend to shift their body shape around what is considered the norm (skinny). The women who lift are "engaged in a 'balancing act' where they were trying to attain a body that was muscular but not too muscular, and that maintained some aspects of traditional 'feminine' appearance" (Grogan, 2004, p. 49). Women are physically trying to be accepted in society, but socially and mentally just because of appearance; society makes it hard to be accepted. It can be concluded that the women who weight train are mentally, physically and socially faced with pressures from within societal gender roles of strength.

Personal Trainers

For women, who are starting off using weights a personal trainer helps with teaching the basics of weight training and/or helps motivate them. According to Madeson (2010), "personal training is a rapidly growing industry in a country that is in dire need of physical fitness and health improvements" (p. 157). The research that Madeson (2010), help to prove that when women use personal trainers a

positive experience arises from developing relationships, trusting qualities, out looked outcomes and motivation. When weight training, it is important to be motivated and also you should be able to trust your trainer. There was a study conducted by Ratamess, Faigenbaum, Hoffman and Jie (2008), which examined the influence of resistance training with a personal trainer versus unsupervised resistance training in women. The result showed how “resistance training under the supervision of a personal trainer leads to greater initial strength values, self-selection of greater workout intensities, and greater ratings of perceived exertion values during resistance exercise.” (p.111). Although personal trainers are usually more expensive, if they are educated in strength training and have prior experience, they are worth investing money to help prevent injuries and to keep women motivated through training.

Methods

Research Tradition

This study looked at women who go to gyms and use recreational weight training while working out. The study underlined the understanding of why women use weights or why they don't. This is supported through previous research and data findings through a conducted survey. This research stemmed from the post-positivism research tradition. A post-positivist approach is, “characterized by a much greater openness to different methodological approaches, and will often include qualitative, as well as quantitative methods, with a greater emphasis upon the use of multiple methods to look at a single phenomenon using a variety of means” (Gratton & Jones, 2010, p. 27). This method gave the most accurate understanding of the participants in this study by understanding of truth through quantitative and qualitative data analysis. The concept of critical realism is a common form of post-positivism and it is the “recognition that all observation is fallible and has error and that all theory is revisable. In other words, the critical realist is critical of our ability to know reality with certainty” (Trochim, 2006, p. 1). That is why with post-positivism there is more to just scientific numbers and observation, it is using both to get the best validated results. With a post-positivism method, there is a

mix of quantitative and qualitative data. A brief introduction to the data types used is quantitative and qualitative data types to “investigate the same phenomenon. Quantitative methods may be used to collect relatively simple or ‘shallow’ numerical data from a large sample, whereas qualitative methods may collect ‘rich’ data from a smaller sample” (Gratton & Jones, 2010, p. 35). This guided the research to be valid because with the mix of quantitative and qualitative data there was a less biased input and more of a strict look at the findings from the provided data.

This research tradition cannot actually prove a theory, which allowed it to have more openness to different methodological approaches and assisted in the study of the unanswered behavior of women who weight train and was able to obtain information about women who do not weight train. This tradition suited the objections of the research on how to understand the behaviors of ‘why’ and ‘how’ women weight train. To truly exemplify the significance of the findings and trying to explain why certain behaviors occur was the goal of this conducted research. A theory considered to understand the research and the collected data is based on the concepts on the Societal Role Theory, which is explained more in depth in the frameworks section of the paper.

Through the conducted research the goal of understanding the complexity of how the barriers of women weight training can lead to answering the research question, how do women who weight train differ from those who do not in a physical, mental and social aspect was answered. The barriers of women and weight training come from the concept of the Societal Role Theory and the impact of gender roles. For both women who weight train and for those who don’t it was important to know both of the perspectives so there was a comparative analysis to test the findings. Through the collection of survey information this study was able to identify some of the barriers and gender roles we have grown accustomed to because of society. This research is able to relate not on a global scale, due to accessibility restrictions, but on a smaller community scale. Other communities like Rochester, NY can

learn from this conducted research and see how this knowledge can relate or is similar to women and weight training on a global scale.

Theoretical Framework

The theory used to help explain the significance behind the research is the Social Role Theory. According to this theory, “behavioral sex differences spring from the differential social roles inhabited by women and men...men are expected to fulfill the masculine gender role that reflects agentic qualities and women are expected to fulfill the feminine gender role that reflects communal qualities” (Harrison & Lynch,2005,p.227). The theory helps to interpret and understand the data based on women’s roles to be heavily influenced by society and how that is a barrier when it comes to being in the gym using weights. The theory assisted with the understanding of the findings of some barriers that women have to deal with from societal roles and how quite possibly a change in society’s influence can motivate a change in perspective between masculinity and femininity. It was necessary to get the perspective of stereotypical women with barriers that weight train and see how they are different from women who don’t see society’s role of gender while practicing weight training. This theory is about achievement and mastery of the relation to the topic of weight training (Covington, 2000). Through this theory, there was information that was able to interpret the data and come up with knowledgeable coded themed hypothesis conclusions based on this selected perspective.

What is framing the study are the concepts of why weight training is important and also how strongly one would assume gender roles are portrayed and influenced in the gym. Weight training is important because of all of the positive effects it has on a person, especially women. Prior research has made it known how weight training for females can “develop strong bones, control weight, boost stamina, manage chronic conditions and sharpen focus” (Plosser,2007,p.1). The second concept which is critical to the research is how gender roles are determined in society. With these roles in place, this research looked into how these roles prohibit females from partaking in what is considered a male

gender role of weight training. Both of these concepts relate because of the masculinity role that weight training has made for itself. When females start breaking the gender role barrier, then it is present how assumptions are made on the female. What this research looked at, is how important it is for society to break its own gender roles so that women will not feel a barrier to weight train. Most importantly, the concepts and the research found some of the common and different barriers between women at the gym and overall how to boost the participation of women using weights in our gender ruled society. It is also important how the research was able to answer the research questions how do women who weight train differ from those who do not in a physical, mental and social aspect.

Conceptual Framework

To operationalize the concepts, the variables needed to have some parameters that act as a guide. In the study of the effect of weight training on the physical, mental and social aspects through women, the dependent variable is weight training and the independent variable is the physical, mental and social aspects and how they relate to woman who are motivated or not to use weights at the gym. With the use of the theoretical framework, It was possible to connect the relationship of societal gender roles and the barriers this may posse to women who weight train. The intervening variable that affected the gathering of research is a simple lack of interest of completing the survey or a slow gym day where there was a lack of female cliental. In an attempt to control for the intervening variables, there was an offered incentive to take the survey. The incentive used was bananas and they were given out to the women who participated in the survey only once. The incentive brought members to the table and was able to spark an interest in participating in the survey.

Design

As stated previously, the tools that were used to conduct this survey and answer the research question of, how do women who weight train differ from those who do not in a physical, mental and social aspect, were a handed out paper survey (Appendix A), Excel spreadsheet and Graphs to visualize

the content analysis (Appendix B). Most of the collected data was primary data due to the completion of the survey by female gym members. This suggested how the data is rich in qualitative descriptions. There was also the collection of some secondary data based on the outcomes of the survey and the different coded themes that presented themselves after analyzing the data. This data was mostly quantitative and the coded themes resulted in the analyzing of the data into a more coherent and organized manner. By having both qualitative and quantitative data being collected this study was able to answer the research question of how do women who weight train differ from those who do not in a physical, mental and social aspect.

Procedure

Some of the key areas that were researched for data collection were along the context of: gender roles, stereotypes, feminist theory, title XI, masculinity, barriers, motivations and personal trainers that revolve around women and weight training. There was a conducted paper survey that was passed out to women at a local Rochester gym. The two gyms that were chosen were Planet Fitness in Victor, NY and Push Fitness in Penfield, NY. Here the permission was granted through calling the gyms managers and also through email where specific times and dates were set up for the research to be completed. Both gyms were able to gain a greater understanding of their female clientele based on the conducted research at their gyms because they could understand what barriers their female members were experiencing. The survey was handed out at each of the gyms once around what worked out for the gyms schedule which was in the morning to early afternoon. The conducted research at each gym was about for an hour and half where there were an unlimited number of surveys collected through the sampling method as stated earlier. The minimal goal of at least 25 completed surveys before the research was to be complete for the day and to be able to leave the gym. The visitation time of the gyms was on a Friday and Monday the following week.

Before the actual handing out of the survey to the “real” participants, there was a conducted pilot test in order to see if the survey will give the research the necessary results. This was a way for any required changes to be made on the survey if they do not make logical sense or how the data does not pertain to the research question. This pilot test was distributed once approved and sent to family and friends before the participants. When that was completed and any changes made that needed to be done there was in immediate contact with the two gym locations to start handing out the survey to the “real” participants.

Analysis

After the collection of survey data, all of the data was drawn out and charted an Excel spreadsheet. This was where the visuals of the quantitative stats and the qualitative rich data were coded and results were analyzed. The survey included all women, those who weight train and those who do not. The initial set up of the survey and incentives was near each of the gyms check-in counters so there could be a maximization of participants. The offering of a banana was given to only the females who participated in my survey only once. The participants were picked in a generalized fashion. Each participant was called over every other women who walked in the gym door so there was a minimal researcher biased formed. If a group of women came in together, the use of generalized sampling was applied. Whoever was the first woman to the table, her survey was used in my data while the rest of the group’s surveys were disregarded in the data collection. The survey’s questions were pertaining to the participation in weight training which had a likert-type scale questions, open-ended questions, multiple choice and short answer questions. The age variable was a nominal scale as well as the influence of gender roles.

With the use of a nominal scale this led the research towards the creation of graphs to visual show the research findings in a greater way than just through text. With this, the graphs were created in order to find an association between these women who weight train and those who don’t. Based off of

the survey and results, the qualitative codes were an open coded system. It was dependent on the occurring themes that presented itself with the results of the data. The development of a priori, resulted in the codes fitting into the themes common barriers and common goals of women who weight train and those who don't. The common barrier codes resulted in them being, education, stereotypes or judging, lack of motivation, gender roles, masculinity and money. The common goal codes resulted in them being health, social, physical activity, tone, life, shape, metabolism, weight loss, skinny, appearance, stronger, mental health, emotional well-being and balance. These codes were developed by analyzing all of the participant's results on the survey.

To measure the influence of gender roles the survey contains questions if women have ever felt inferior to the men in the gym or how many women they see using any type of weight training when they work out. The survey also questioned the top motivational factors of weight training and had the woman gym members rank in order of what they personally believe is their motivational factors. For the women who do not weight train, the survey looked into the underlying question of why, so by looking at the barriers of weight training the research outcomes can find an association or linkage of barriers of how both women who weight train and women who don't have in common. After the completion of gathering my research, there was a generously hand wrote Thank You note given to the gyms for allowing the conducted research to happen on their premises and gyms. (Appendix C).

Results

The data collected contained a population strictly of female's who had a membership to either the gym Planet Fitness in Victor, NY or Penfield Sport and Fitness in Penfield, NY. The age of the female participants ranged from 24 years of age or younger to 60 or older. The majority of the participants were 60 or older or 24 or younger (Table 1, Appendix B). There were a total of 32 surveys completed for this research as 29 participants weight train while at their gyms and 3 participants did not (Table 2, Appendix B). Also the survey showed how today women tend to do more cardio work machines than weight

training machines (Table 3, Appendix B). This is consistent with previous research done by Juhas (2011). The participants had to rank in order of importance what they do at the gym and cardio was by far the most important. The rest of the results were all fairly equal in importance. Strength machines and free weights were similar in importance based on the participant's survey answers and the coded themes.

To answer the research question of how do women who weight train differ from those who do not in a physical, mental and social aspect the data was analyzed through a coded themed system. The data supported that the female participants of this research have an overall drive to be at the gym and use weights. Of the 32 surveys, only 3 females do not use weight training. Physically, women who weight train are more comfortable with themselves and have more confidence. Many of the women state how they don't care if men look at them while lifting. Also, from a physical aspect, weight training women want to become stronger and that is the reason they use the weights. Contrasting this is the women who do not use weights and physically their main goal is to just stay in shape or lose weight. This difference shows the drive between the two groups and how the motivations alter the decision to weight train or not. Those who weight train were the only ones who thought that using weights for mental health would be beneficial to them. Those who do not use weights are surprisingly not afraid of losing their femininity if they used weights, they just mentally do not want to do it. At a social aspect, both sides feel that majority of the time they feel some type of pressure to either weight train or not from society. Those who do weight train have accepted their role socially and have overlooked any boundary that are placed at the gym when using weights and want the respect from their male counterparts. Those who don't use weights, results show how socially they would like to go to the gym with their friends and stay more strictly in the boundaries that society has placed on female activities in the gym than more masculine workouts such as cardio machines rather than weight training.

Looking at the research questions of, how women who weight train differ from those who do not in a physical, mental and social way and by looking at the association of barriers and motivations

between those who use weights and those who don't, research shows a common connection. Based off of Table 7 in Appendix B, the research shows how the most common barrier of both women who weight train and those who don't is that they are neglected of the proper education. Many females are lacking the necessary knowledge or education behind weight lifting practices, techniques or proper machines to use.

The common goals or motivations that this survey found of women who weight train and those who don't can be found in (Table 8, Appendix B) which shows the differences between the two. The women who weight trains three common goals or motivational factors to get to the gym were to be stronger overall, healthier and lose weight. The goals for the women who do not use weights were to socialize, get in shape, and weight loss. The only remotely close common goals that both women who weight train and those who don't were to get in shape or to lose weight. These results were based off of the common findings of all completed surveys after the participants answers were coded into general themes.

Surprisingly, it was interesting to see how today, women have never felt intimidated by men at the gym (Table 4, Appendix B). This probably has to do with gyms having what is known as a "Judgment Free Zone" where everyone at the gym is supposed to feel comfortable. Yet, still with majority of the women feeling as if they aren't intimidated by men, they still choose to use cardio machines over weights at the gym.

Discussion

The results of this study support previous research in illustrating that there are differences of women who weight train from those who don't in a physical, mental and social aspect. This is regarding the way that the female members of this research responded to a conducted survey that was handed out at two local Rochester, NY gyms. The results concluded that through the barriers and motivations or goals, there was a common theme of lack of knowledge, gender roles, stereotypes and masculinity that

plays a factor to women choosing to weight train and those who don't. This study went further in demonstrating that women who go to the gym have similar barriers that restrict them from weight training. By looking more in depth of this issue, it can be concluded that the lack of education of weight training for females has prevented them from having weight training be their number one priority at the gym. This research clearly exemplifies how different the motivational factors are to the women who weight train and those who don't according to the respected tables in this paper.

The results based on gender roles in the gyms actually disagree with research from Patton, as he refers, how women fear if they step outside traditional norms they will turn into men (2001), as this conducted research proves how women never are intimidated by men at the gym, they disagree that men reject women and also after asking the participants if they would prefer a separate weight room based on genders, the majority voted against it (Table 4,5,6, Appendix B).

These results are interesting because based on some of the individual answers from the qualitative part of the survey, many females felt that the men at their gyms hog the weights and they feel uncomfortable if they are lifting more than the men. They also stated how they have to deal with stereotypes of being butchy when weight training and men misjudge a female's ability to use weights. One participant quoted "I had a male trainer who did not listen to my needs and had inappropriate expectations." Based on research from McGrath and Chanie-Hill, females are refusing others to slow down their level of participation in an activity such as weight lifting that is considered a male activity (2009). The research conducted relates to this because many of the participants wrote how even though men may look or judge them, they are focused and comfortable with themselves to keep resisting the urge to fall back into societies notion of what is considered masculine or feminine activities.

As previously noted in the prior research, gender roles, stereotypes and masculinity were also present in this research of barriers affecting women who weight train (Haines, 2008). The conducted research shows how correct the study done by Hristo was as he notes how women are lacking the

proper knowledge of strength training equipment in the gym (2012). One can only go so far when females do not know how to work the machine, or what part of the body the machine would be working on. This common barrier is stating that both women who weight train and those who don't just need the guidelines of how to weight train in order to overcome the barrier. It can be assumed that there is a lack of knowledge of weight training for females because of how unknown it is to women because of how society and culture keep it so distance to females and strictly to males and masculinity.

The motivational goals of the women taking the survey found how the research done by Cokorilo, Mikalacki, Rakic and Radjo, are agreeing how the women who want to lose weight, tone, and become stronger need to realize in order to get these results overtime one has to exercise using weights (2012). There is proof that for the younger aged female weight lifters as Harne, exemplifies in his research of how there will be an increase in muscular strength and lean body mass (2005). As for older women, weight training will help their balance, and their bones stay in shape. Life in general is affected by weight training and the table 8 in appendix B shows how mostly women are not finding this as one of their top goals when it needs to be.

Title IX has played an important impact for equal opportunities in sport for women, whereas Simson, notes how for equal opportunity that means society has to be gender free (2011). This research shows how today, society has been accepting of being more gender free but there is still a gender gap that is present. Many of the participants stated in the survey how their gyms practice a "Judgment Free Zone" and the men accept and appreciate a female who uses weight training. This is showing how through Title IX and the changing of society to be more gender free, weight training allows women the access to partake in more masculine ruled activities and try more to eliminate sexual discrimination. As Scott-Dixon (2008) notions in his research, this research also proved how the women who weight train all want to become more muscular and not just skinny again contradicting previous research and society's norm. This is referring to how society may be changing its role in being more supportive to

muscular women and has a more positive look on women who use weight training as a routine part of their workout. There is still however a large gap of gender inequalities while observing the gym and the participants. Even as females were using weights with the men, there were still far more men using weights than females and way more females on cardio machines.

The need for greater education regarding weight training for women needs to start sooner rather than later. There is a need for proper technique training as well as what the different machines and free weights can do for one's body. Personal trainers should be more readily available at gyms to help out women who are weight training. If gyms offered a separate package or class that could be taken that would help educate women the proper techniques of weight training it would be beneficial. Also, this education can also start in high schools PE classes so that females can get the basics of weight training while young. To ensure that women get a more educational background on weight training, gyms must also begin to consider the role of women at their gyms and start learning about what their needs are. If gyms are able to help inform more women about the positive and health benefits that weight training can have on one's body then women will be more willingly to use weights the proper way in a gender free society and create a healthier lifestyle.

The limitations of this study can be noted how there was only the use of females for this study. Also, this study was done with a very small number of samples from only two gyms. This study is lacking any comparison to male weight training and any barriers they encounter. With the smaller sample size for this study, results are more based on a local scale and not globally. There was also a high percentage of white females taking the surveys based on the location the study was done. To get a broader range of participants there needs to be a greater number of demographics in this study. It was difficult to get participants to take the time to fill out the survey, as many complained of not having enough time.

Based on the current findings, further research should focus on determining a larger sample of women from national or international areas that go to the gyms. Further research, can find more

information on a global scale of why some women weight train and why some don't. More time can be involved with this research so that more data could be gathered. With this, a shorter survey that only asks relevant questions to the research need to just be asked. There could be more barriers present globally than just what this study found through localization and accessibility of the gyms used. Future studies can illustrate a grander scale of women's role in society and show how society is improving or discouraging participation in a gender free world. It would be interesting if an ethnographic study was done on this topic to observe women in the gym and see their behaviors around men in the gym.

Conclusion

Concluding this research, there are many common barriers and motivational factors that affect women to weight train. By concluding that the lack of knowledge of weight training, along with gender roles, stereotypes and masculinity factors, it is noted that these specifics are refraining women from weight training. This research has predicted what Prentice notes how women need more education to see the benefits of strength training (2002). All women need to be more motivated to go to the gym and use weight training as part of their working out because of the health benefits that come along with weight training. Society has been better than the past regarding the acceptance of women using weights in the gym, but there are still stereotypes and findings show how women tend to gravitate towards exercises they know or what gender roles place them in. Prior research and the findings show how women need to see how weight training needs to be prioritized more than cardio machines and how different women who weight train are physically, mentally and socially different than women who don't weight train.

Appendices

A) Survey

Consent

CONSENT FORM

Project Title: Women and Weight Training

Researcher: Alexandra Rohloff Email: amr03767@sjfc.edu

Advisor: Katharjne A. Burakowski Email: kburakowski@sjfc.edu Phone: 585-385-7389

Purpose and Description: This survey is based on a study that is examining the role of barriers of women participating at a gym. The underlying research question that is trying to be answered through the data collected on this survey is: how do women who weight train differ from those who do not either physically, mentally and socially. As participants of a gym, your background and experiences are of great importance to the successful completion

of this study. I am requesting your assistance by completing the survey: Women and Weight Training. The survey should take no longer than ten minutes of your time and once completed you will receive a Thank You incentive for assisting with my research. This is a paper-based survey with a background section, a weight training section and a section for participants who do not weight train. There is a risk of others seeing you participating in the survey. You may refuse to answer any questions and may withdraw from completing the survey at any time. By completing this survey, you consent to participate. No personal information will be associated with your responses in any published results of this study. Having read the above and having the opportunity to ask any questions please complete the survey if you would like to participate in this research. By completing the questionnaire, you will give me permission for your participation. If you have any concerns feel free to ask during any point of the survey. Thank you very much for your assistance, it is greatly appreciated. Please indicate your agreement to voluntarily participate in this survey: (Agree / Disagree)

What is your age?

24 or younger 25-29 30-34 35-39 40-44 45-49 50-54 55-59 60 or older

On average, how many times do you weight train? (free weights, lifting machines, resistant bands)

- 0-5
- 6-10
- 11-15
- 20+

How much do you feel pressure from society either mentally, physically or socially to weight train?

- Never
- Rarely
- Sometimes
- Often
- All of the time

What is the driving force that gets you to the gym? Please explain.

How often do you go to the gym and use weight training (free weights, lifting machines, resistant bands) in your exercise?

- 7X a week or more
- Every other day
- Twice a week
- Once a week
- Never

Do you agree that you feel men reject women from sports in our male dominated society? To what degree?

Explain:

Would you feel more comfortable if women and men had their own separate weight training rooms?

- Yes
- No

Rank the order of importance to your exercise at the gym. Cardio, Strength Machines, Yoga Practices, Free Weights, Resistant Bands, Plyos, Stability Balls, Aerobics

Do you use weight training or resistant band exercises while working out? (free weights, lifting machines, bands)

- Yes
- No. If no please skip to section 3

This is section 2 and is for women who use WEIGHT TRAINING In their exercises.

Do you feel at all intimidated if men are using weights around where you are weight training?

- Very
- Often
- Sometimes
- Rarely
- Never

Name 3 goals behind your decision to weight train?

Rank the order of the most important motivation reasons that you feel are reasons to why you weight train? Physically Stronger, Loss of body fat, Overall Strength, Increase of health, Increased athletic performance, Reduce injury, Reduce heart disease, Reduce chance of diabetes, Fight Depression.

Please explain some of the barriers you have encountered while weight training? (such as gender roles, lack of knowledge, femininity roles, stereotypes, etc.)

This is section 3 and is for women who DO NOT USE WEIGHT TRAINING.

What are your top 3 goals of going to the gym? What do you want to get out of exercising?

Are you afraid of losing your femininity if you use weight training? (free weights, lifting machines, resistant bands)

Please explain reasons or barriers of why you don't incorporate weight training in your exercising?

B) Graphs

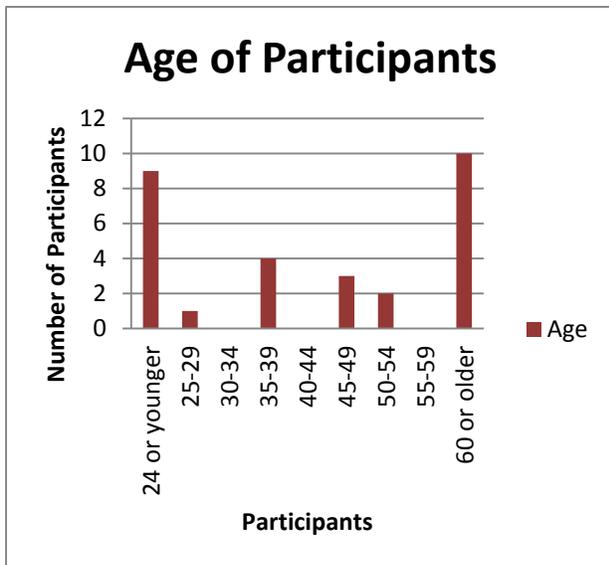


TABLE 1

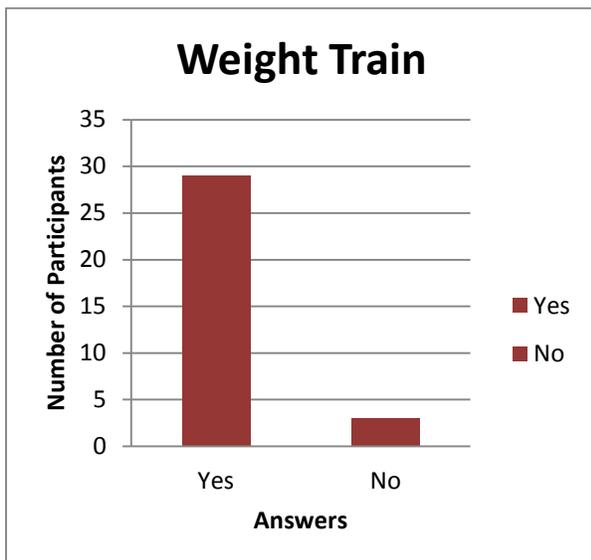


TABLE 2

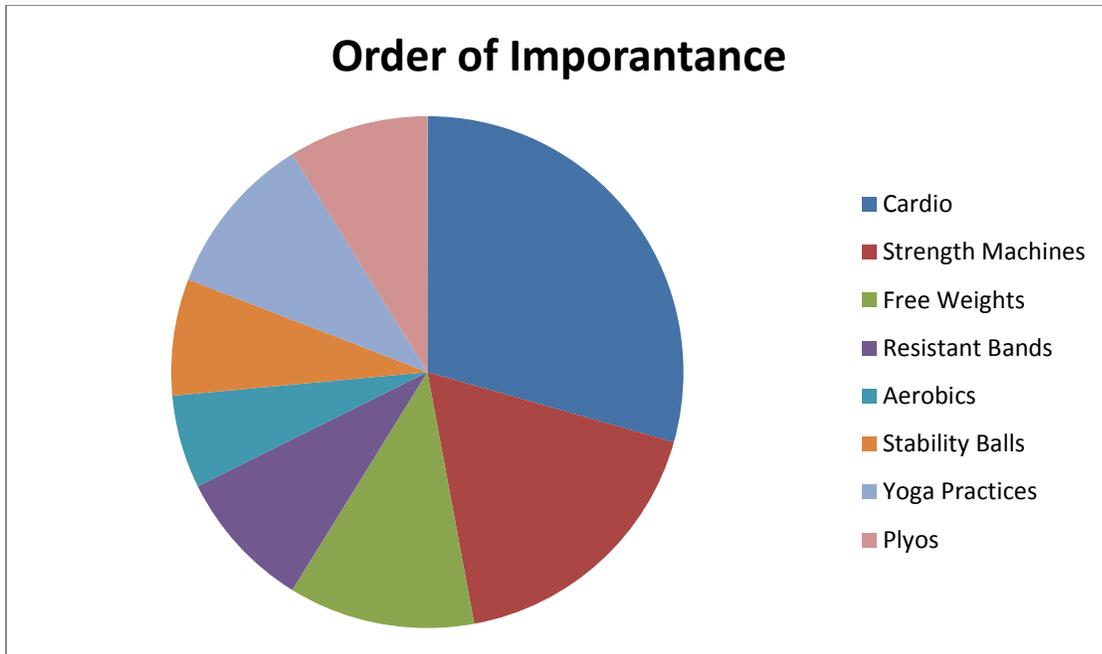


TABLE 3

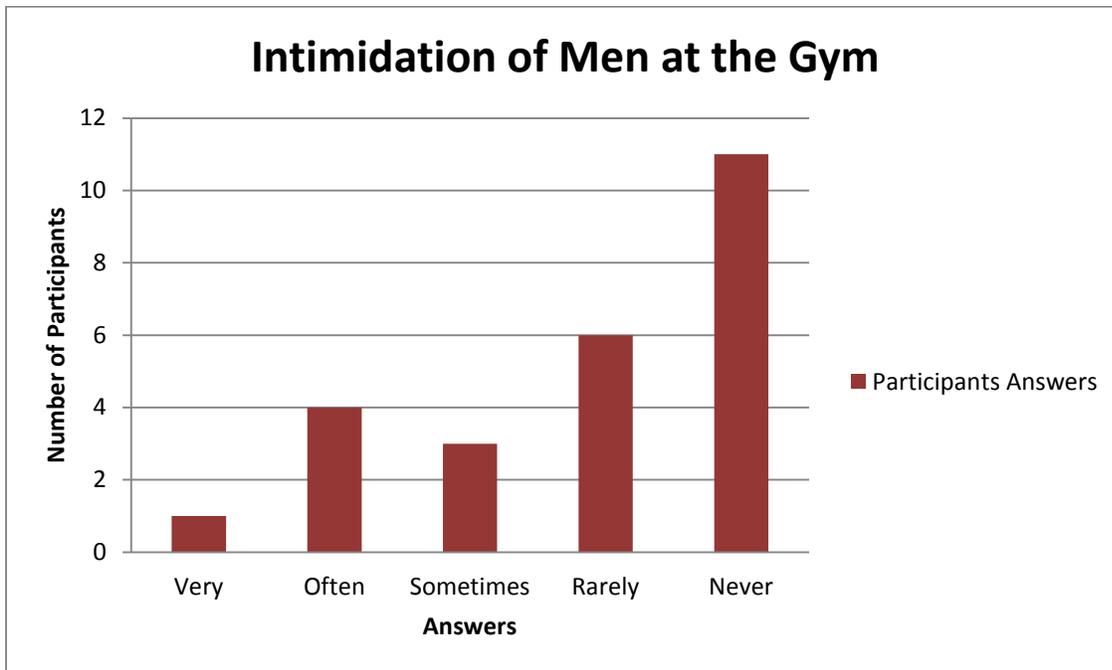


TABLE 4

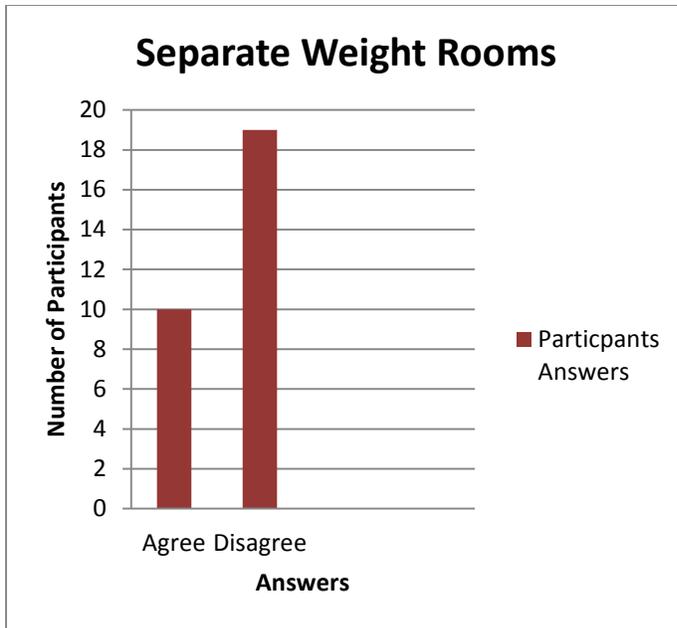


TABLE 5

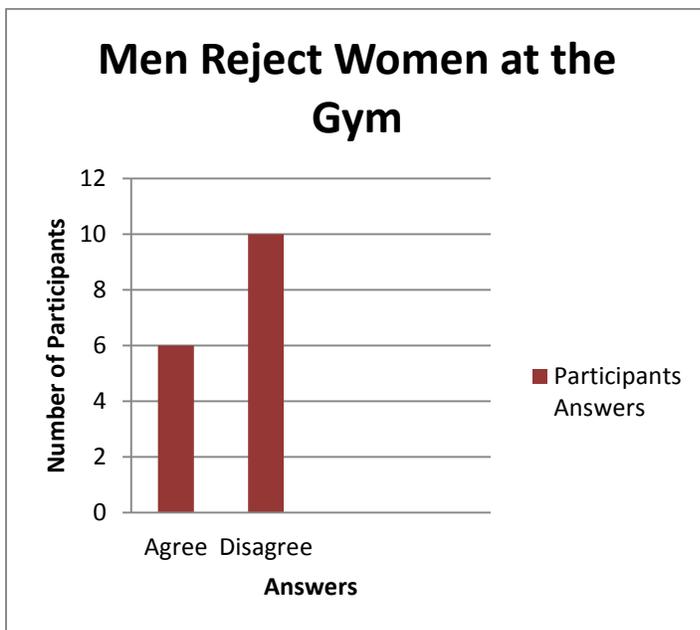


TABLE 6

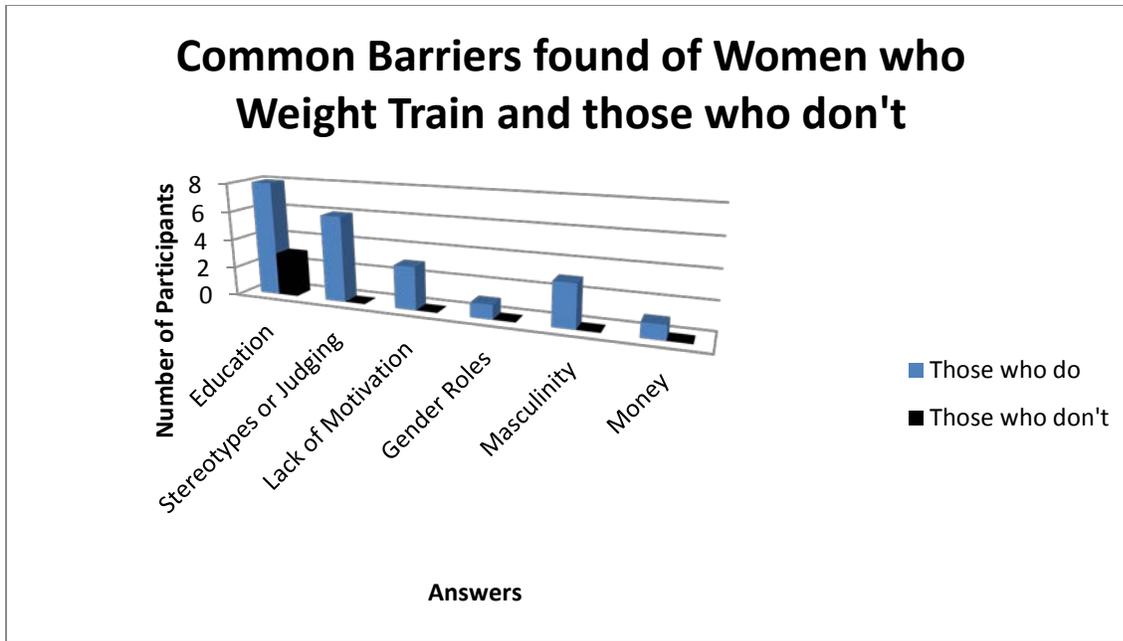


TABLE 7

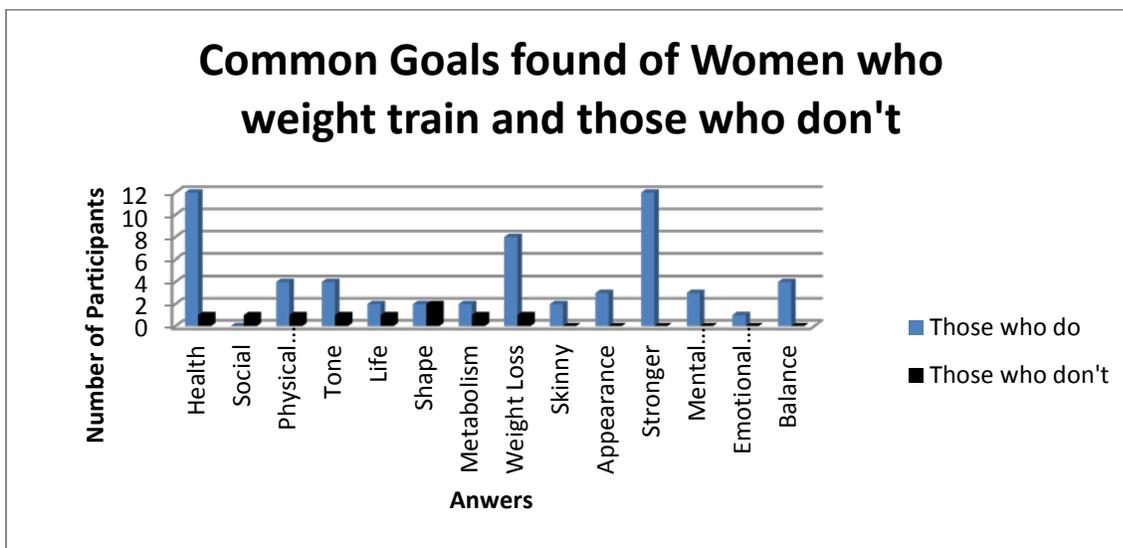


TABLE 8

C) Thank You Note

Dear,

Date

Thank you very much for allowing me to come to your gym and pass along my survey to your female members. This helped my study tremendously and I greatly appreciate your kindness of opening your gym to me. Thank you again-

Sincerely,
Alexandra Rohloff

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