

Male group fitness participation trends, barriers, and needs as discovered through literary

review and university survey

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OBSERVATION

As a student at The Ohio State University and active participant at The Recreation and Physical Activity Center, RPAC, I have noticed that an overwhelming percent of group fitness class participants are female. Group fitness classes are offered to students through the Department of Recreational Sports at the RPAC. The classes offered are similar to those offered at fitness and community centers throughout the nation. From personal participation in group fitness classes at various locations, it seems that regardless of the class format, the vast majority of participants are female. Group fitness classes cover all areas of physical fitness including cardiovascular, strength, and flexibility training. Unfortunately, there is a large bias in the participant population nationwide, as around 87% percent of group fitness participants are female exercisers ¹³. From observing typical trends in male group fitness participation and the preferred modes of physical activity by gender, there is a general assumption made that men tend to focus on strength training rather than cardiovascular and flexibility training. This is an assumption shared by many professional sources and onlookers.

PURPOSE OF THE STUDY

The purpose of this study is to discover trends in participation rates in group fitness classes. In addition to any trends discovered, the reasons behind the large female participation bias will be discovered and evaluated. A decision will then be made as to whether promoting group fitness classes to the male population would add any extra benefits to the fitness levels of active males.

METHODS

To answer these question several steps were taken. First, a review of professional literature was conducted. Previously conducted studies regarding physical activity frequencies and modes among men and women were evaluated. A study evaluating behavioral and environmental

determinants behind male physical activity was reviewed. Literature review methods will be described in full detail in “Literature Review.”

In addition to the literature review a Student Survey was administered to a sample of the active, male student body at The Ohio State University. A random sample of 2500 collegiate males who attended the RPAC during the winter 2012 quarter, out of 15,000 total male visitors, was emailed a link to a survey. The participants of the survey are all male students at The Ohio State University of various ethnicities, ages, backgrounds, and fitness levels. The sample size represents a general population of male college students who utilized the recreational facilities offered by The Ohio State University during the most recent academic quarter. This sample was chosen because group fitness classes at the university are only offered within the RPAC. So, the population of males actively using the RPAC is the most likely group to see group fitness classes in action and make a conscious decision to participate or not participate. Additionally, being an Ohio State University student, the RPAC facility was the most available population to investigate rather than an off campus recreational facility. The survey was administered with the help of the researchers at The Student Life Research and Assessment office. Student Life offers research and assessment resources and assistance to students. This organization has access to various population samples and contact information. Through the use of Student Life’s database and survey assessment software, SPSS, this survey was able to be sent to a random group of males in the specified population and their responses to be evaluated in a confidential manner. 400 responses allows for a representative sample of male RPAC attendees as the researchers have deduced from previous surveys and sample sizes. 400 responses from the 2500 surveys emailed would result in a 16% response rate. A typical response rate for surveys is around 30%. In

hoping for 400 responses as the ideal representative number, the survey was sent to more than enough people to allow for some leeway.

The survey was sent via email on March 28th and was open until April 9th, allowing participants a two week period to respond. A reminder email was sent to the entire sample Sunday April 1st to encourage responses from those who had not yet taken the survey. The responses to the survey were analyzed with SPSS software, software used by researchers for statistical analysis. All responses and contact information were kept completely confidential. The office of Student Life Research and Assessment provided the sample and contact information so the individual researcher was kept unaware of who received the survey. This data was used to support the proceeding conclusions. Following the initial literature review and analysis of Student Survey responses an additional category of literature was researched. The information gathered from these resources made it apparent that it was necessary to research the benefits of stretching and flexibility, which through the initial literature review, and later supported by Student Survey results, was found to be an area in which males lack practice. Flexibility is an area of physical fitness that is often disregarded and this was found to be true for the population of males surveyed. Therefore, a look into professional literature detailing the benefits and recommendations for stretching and flexibility was included.

REVIEW OF THE LITERATURE

A review of professional literature has provided some insight on various aspects of the observation that males seldom participate in group fitness. The literature investigated originated from multiple sources. Much of the literature was discovered through The Ohio State University library website, which provides access to several databases hosting information on physical activity topics. Searches include male group fitness participation, physical activity trends by

gender, physical activity recommendations, physical activity benefits, male health risks, male exercise determinants, and barriers to group exercise classes. Information regarding recommendations for physical activity and the benefits of regular activity was gathered from nationally recognized sources included the American College of Sports Medicine, American Council on Exercise, and Centers for Disease Control. A study published in the American Review of Nutrition provided insight on the determinants of physical activity; information which proved helpful when explaining the reasons for low male group fitness participation. The Bureau of Labor Statistics conducted an extremely useful study that identifies trends in sports and exercise participation of active people age fifteen and older. The study, as with this investigation, focused on the 16% of the population who participates in physical activity on an average day. Additional resources include medical journals and publications which describe health statuses that males are at a higher risk for than females. To support various barriers and preconceptions males have to group fitness classes, as discovered through the Student Survey, additional journal articles describing the benefits of group fitness classes and differences in male and female fitness motivations were examined.

Adult Male Health Issues:

The American College of Sports Medicine is a nationally accredited organization dedicated to the research and education of sports medicine and exercise science. ACSM recommends 150 minutes of moderate aerobic activity or 75 minutes of vigorous aerobic activity per week ⁴. Aerobic activity can be achieved through many modes. Cross country skiing, running, jogging, walking, swimming, and cycling are just a few of the activities that provide an aerobic workout. In addition to the aerobic recommendations, it is recommended that muscle strengthening activities be performed at least two days per week ⁴. When participating in muscle strengthening

activities, large muscle groups should be focused on before the more discrete. These include back, abdominals, biceps, triceps, shoulders, quadriceps, hamstrings, and gluteal. Many exercises are capable of working more than one muscle group at a time. Muscle strengthening activities include working the muscle group against a resistance to the point of muscular fatigue. Activities that provide muscle strengthening benefits include the use of free weights or dumbbells, resistance machines, resistance tubing, and body weight.

ACSM recently updated their exercise recommendations to include flexibility training.

Flexibility training increases joint range of motion. Big muscle groups and muscles that tend to be tight should be focused on. The muscles should be stretched to the point of tension, but not to the point of pain. Appropriate stretching includes holding a stretch for 10-30 seconds, repeating until each stretch is held at least 60 seconds total. This should be done two to three days per week⁴. Ballistic, or bouncy movements, should be avoided because they tend to stretch the muscles past their comfort zone to the point of overstretching or tearing. Activities that improve flexibility include stretching, yoga, etc. Flexibility is often neglected and its importance is a rather controversial topic. ACSM is known as the model institution for the health and fitness field and their recommendation should be held at the highest of standards.

The benefits of regular physical activity are endless. Regular exercise is known to reduce body weight, reduce body fat, increase lean muscle mass, reduce blood pressure and the risk for heart disease and stroke, reduce LDL (bad) cholesterol and increase HDL (good) cholesterol, decrease the risk for diabetes and increase insulin sensitivity, increase one's tolerance for exercise, improve the body's ability to intake and use oxygen, improve mental health, mood, and quality of sleep, and even reduce the risk of some cancers⁵. These benefits can be seen only with regular exercise.

Men have a much higher risk of developing many health issues that can be prevented by regular exercise than women. For this reason, it is especially important for men to be physically active in all areas- cardiovascular, strength, and flexibility. Heart disease is the leading cause of death in the United States. Men have a higher risk of developing heart disease than women- an unfortunate fact that has been linked to both the presence of the Y chromosome and the hormone estrogen. Heart disease also occurs at an earlier age in men than in women. Heart disease issues include heart attack, coronary artery disease, and heart arrhythmias (heart rate abnormalities) ⁷. Atrial fibrillation is a heart arrhythmia that men are at a higher risk for. Atrial fibrillation can lead to stroke. Studies have shown that regular exercise has the ability to help the heart maintain a normal rate and therefore lower atrial fibrillation incidences ¹². So many families are affected by heart disease, as more than one in four male deaths are due to this condition. A physically inactive lifestyle is the reason for 53% of heart disease related deaths ⁷. Therefore, at least half of the deaths resulting from heart disease could have been prevented.

Lowering blood pressure is known to be one of the many benefits of regular exercise. Males with upper-normal blood pressure were found to have at least a 60% higher risk of developing atrial fibrillation than males with normal blood pressure ⁹. High blood pressure contributes to the development of many health issues such as heart attack, stroke, aneurysm, heart failure, and metabolic syndrome. Again, regular exercise can reduce the risk of developing all of these states. Males have a higher chance than women of developing 32 of 35 cancers ⁸. Some cancers, specifically prostate cancer, can be prevented by regular exercise. Prostate cancer, the most prevalent form of cancer in men, leads to decreased force of urine output, blood in the urine, and swelling of the legs. All of these disease states for which men are at a high risk for simply

because they are men, can be prevented by regular physical activity. Therefore, it is eminent that males participate in regular exercise.

History of Physical Activity:

To address trends in male group fitness participation it is necessary to investigate the source of any misconceptions and opinion males have formed throughout the years. To do so, the history of group fitness will be explored. With all of the benefits physical activity brings, it is shocking that only 3 out of 10 Americans get the recommended amount of physical activity. For this reason, the Kennedy administration began the President's Council on Physical Fitness as a motion to combat the sedentary lifestyle of Americans. The goal was and remains to get more Americans involved in moderate physical activity. This council replaced the former President's Council on Youth Fitness previously started by Former President Eisenhower, which focused solely on the minimal muscular strength of American children. The President's Council on Physical Fitness was directed towards American's of all age groups. It also included standardized fitness testing performed in school. These fitness tests set norms by gender for overall fitness aspects such as muscular strength and endurance, flexibility, and aerobic capacity. Throughout the years the name of the organization has been changed and is currently The President's Council on Fitness, Sports, and Nutrition (PCFSN) to reflect all of the aspects of health for all Americans ².

During the surge in fitness promotion one name in particular became very popular. Dr. Kenneth Cooper emerged as a key influencer in the health and fitness fields. Dr. Cooper published eighteen books on health and fitness after experiencing his own health crisis. Dr. Cooper is known as the "Father of Aerobics" and originated the term "aerobics" in 1968. He defined aerobics as "a method of physical exercise for producing beneficial changes in the respiratory

and circulatory systems by activities which require meeting a modest increase in oxygen intake and so can be maintained ¹.”

From this, former dancers Jacki Sorenson and Judi Sheppard Missett combined their love of dance with aerobics. They choreographed exercise routines to music, which eventually Missett developed into Jazzercise. Jazzercise is the well-known beginning of structured group fitness classes. Jazzercise was the first program to train and franchise class instructors to lead large groups of exercisers. It was also the first program to hold group exercise classes in preexisting facilities like Y's and community centers. From here group fitness made its way to national TV with gurus such as Jack Lalanne, Denise Austin, Richard Simmons, Jane Fonda, and now, Jillian Michaels. Now there is a large variety of group fitness classes including step aerobics, dance, Zumba, spinning, body sculpting, kickboxing, boot camp, etc. ¹⁵. Group fitness has become exceedingly popular in the past few years. Les Mills, a popular group exercise program, administered a survey to 1,000 participants nationwide ¹¹. 91% of responders said that they attend their local gym at least once a week for the purpose of attending a group exercise program. 39% participate four times a week or more for the same purpose. 75% of responders stated that they would consider switching gyms if a Les Mills group fitness program was no longer offered at their current location. The results of this survey speak volumes to the popularity of group fitness classes and the reliance participants have on these classes as their form of regular physical activity. Group fitness classes provide an environment filled with social support for exercisers. However, this social environment is not preferred by all.

Adult Male Physical Activity Participation:

The assumption that males engage in strength training activities more so than other aspects of fitness has been somewhat debunked. A study administered by the Bureau of Labor Statistics provided much information on this topic. The study, published in 2008, acquired information from the American Time Use Survey. ATUS provides information on where, how, and with whom Americans spend their time each year. The representative data is accumulated from over 110,000 interviews conducted throughout several years. The Bureau of Labor Statistics compiled information relevant to how Americans age fifteen and older spend their physical activity time. The study included charts describing popular exercise activities by gender, exercise activities popular among various age groups, companion preferences during physical activity for males and females, and amount of time spent exercises. This study found that men engage in cardiovascular training just as much, if not more, than women, depending on the mode of physical activity. 58% of men, compared to just 42% of women, run regularly. 66% of men regularly cycle, while only 34% of women engage in the activity. 44% of men regularly use cardiovascular equipment such as indoor cycles, treadmills, elliptical trainers, etc. This is not much less than the 56% of women who utilize the same equipment regularly. 72-96% of men engage in cardiovascular activity by participating in ball sports¹³. This percentage varies based on sport. Regarding structured aerobic classes such as Step Aerobics, only 17% of men participate as compared to 83% of women. This statistic supports the observation that men are not attending structured fitness classes. If the research stopped here, one could assume that because men are the minority in a group fitness class based on cardiovascular training, they must not be getting the recommended amount of cardiovascular training. However, when other modes of cardiovascular training are included, this common assumption is disproved. This study shows

that active males are not lacking cardiovascular training in comparison to strength training (Table 1). Between participation in sports and informal cardiovascular activities like running, males are engaging in aerobic exercise and therefore training their cardiovascular system. In the Student Survey the participants were asked to identify the amount of time they spent exercising in various modes including strength training, stretching, and cardio training. 42.9% strength trained “daily or almost daily.” 53.8% engaged in cardiovascular activities 3-5 times per week and 17.8% 5 or more times per week. However, 69.5% admitted to stretching or practicing flexibility less than the recommended 3 times per week- 33.5% never stretched and 36% only stretched one or two times per week. These percentages bring to light a less expected imbalance in male fitness training. As previously stated, there is a common misconception that males focus too much on strength training and not enough on the cardiovascular components of fitness. However, as seen by the 42.9% who regularly strength train and the 71.6% who engage in at least the minimum amount of cardiovascular training, this assumption is untrue for this population of males. Interestingly, when asked which form of physical activity they prefer between strength training and cardiovascular training, the preferences were very close. 53.4% preferred strength training over cardiovascular training and 46.6% vice versa. So the numbers, and the male’s personal opinions, do not coincide with popular beliefs. The imbalance pointed out by the survey is that males are not stretching their muscles as often as recommended. The importance of flexibility and the implications of this imbalance will be further addressed in “Male Health Issues” and “Conclusions.”

An additional table created from the same study further justifies the point that males are participating in enough cardiovascular activity by clarifying the amount of time spent being physically active on an average day (Table 2). The American College of Sports Medicine,

ACSM, is a nationally recognized organization dedicated to research in the exercise science and sports medicine fields. ACSM has come up with guidelines for the recommended amount of exercise for people of varying age groups. For adults age eighteen and older, it is recommended to acquire 150 minutes of moderate aerobic activity or 75 minutes of vigorous aerobic activity per week ⁴. As seen in Table 2, 90% of the active population surveyed engaged in sports or exercise activities for a minimum of 30 minutes on an average day. Being that this is not broken down by gender we must assume that both males and females are acquiring this minimum amount of activity. Between the evidence provided by the Bureau of Labor Statistics and the Student Survey it is seen that among active males, cardiovascular training is equally as important, preferred, and performed by males as strength training activities.

Table 1: Bureau of Labor Statistics- Sports and Exercise ¹³

| Percent distribution by sex of people aged 15 years and older who engaged in sports or exercise activities on an average day, by activity, 2003-06 | | |
|---|--|--------------|
| Sports and exercise activities | Percent of participants in each sport | |
| | Men | Women |
| Football | 96 | 4 |
| Basketball | 86 | 14 |
| Golfing | 82 | 18 |
| Soccer | 80 | 20 |
| Baseball, softball | 72 | 28 |
| Racquet sports | 69 | 31 |
| Cycling | 66 | 34 |
| Weightlifting | 64 | 36 |
| Running | 58 | 42 |
| Hiking | 56 | 44 |
| Bowling | 54 | 46 |
| Swimming, surfing, water skiing | 47 | 53 |

| | | |
|---------------------------------------|----|----|
| Using cardiovascular equipment | 44 | 56 |
| Dancing | 44 | 56 |
| Walking | 43 | 57 |
| Yoga | 20 | 80 |
| Aerobics | 17 | 83 |

Table 2: Bureau of Labor Statistics- Sports and Exercise ¹³

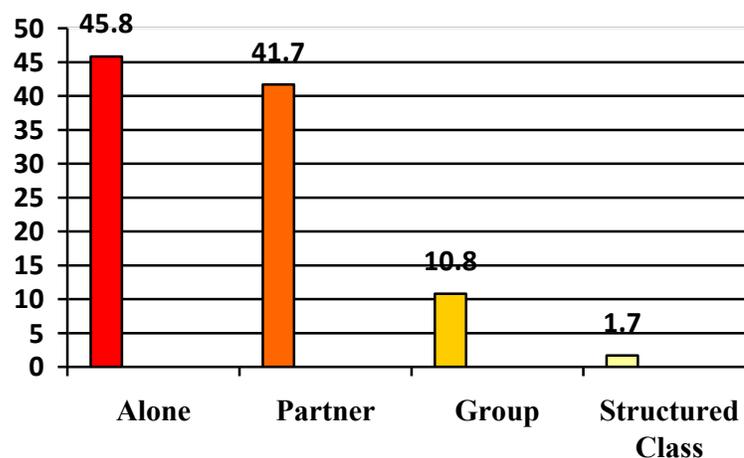
| Percent distribution by length of time spent exercising of people aged 15 years and older who engaged in sports or exercise activities on an average day, 2003-06 | |
|--|----------------|
| Average hours per day persons who engaged in sports and exercises spent engaged in them | Percent |
| less than 30 minutes | 10 |
| 30 to 59 minutes | 29 |
| 1 hour to 1 hour 29 minutes | 25 |
| 1 hour 30 minutes to 1 hour 59 minutes | 11 |
| 2 hours to 3 hours 59 minutes | 19 |
| 4 or more hours | 6 |

Multiple determinants of physical activity participation influence males. Males have various reasons for participating or not participating in regular physical activity, defined as at least thirty minutes of moderate physical activity most days of the week. A study titled “The behavioral determinants of exercise: implications for physical activity interventions,” published by The American Review of Nutrition, identified many of these determinants ¹⁰. Personal barriers to physical activity participation that adult males encounter include injury, work commitments, family activities, exhaustion, and lack of time. Environmental barriers to physical activity include inclement weather, access to facilities, and proximity of facilities. It was found that if a local recreational facility was within walking distance of an individual’s residence, exercise was

more frequent. If farther than walking distance, responders were either sedentary or relied on walking or running outdoors for activity ¹⁰. What does this have to do with group fitness classes? Group fitness classes are performed out of recreational facilities under the supervision of instructors. These classes therefore take place within the facility- with the occasional outdoor class. If an individual does not reside close to a recreational facility that offers group fitness classes, they are highly unlikely to attend any of the classes. Social support is a key factor in exercise adherence, especially for new movers. Exercisers who had the support of family members, spouses, or friends, were more likely to be physically active. The group dynamic of group fitness classes provides this support to all participants. Even if participants do not know one another, the group provides a sense of involvement, encouragement, and commitment. Much like having a scheduled meeting, a commitment to attend a class keeps individuals motivated to attend and exercise. Exercising with a group provides individuals with a structured class based around a well-rounded routine which can prevent plateaus in results. Exercising in a group requires accountability- whether it is a group fitness class or a scheduling group training session, having people relying on each other's presence is motivation for consistent attendance. Finally, group fitness classes allow for a social environment that can be much more enjoyable than the solitude of an individual workout. Despite this, the study from The Bureau of Labor Statistics found that 52% exercisers over age 15, both men and women, exercise alone, as seen in Table 3 ¹³. It is important to look at the motivations behind exercising when addressing this point. Multiple studies have found that males and females clearly have different motivations for engaging in physical activity ^{6, 10, 14}. While women want to get thin, tone up, have more energy, etc., men are interested in building bulk muscle and losing overall body fat. It is plausible to infer that men also tend to participate in physical activity for pure enjoyment, as seen through

participation in sport activities. While the intention may not be to exercise their cardiovascular systems, participating in regular sport activities does just that. An interesting parallel here is that although based on the responses males are less likely to exercise in a group than alone, their participation in sports (which again results in exercise) provides the same social interaction as exercising with a group. This preference can be seen in Chart 1 below. The information in Table 3 is in regards to a question from the Student Survey asking “Do you prefer to exercise alone, with a partner, with a group, or in a class?” The overwhelming majority of males answered that they preferred to exercise alone or with a partner. Only 10.8% of the responders preferred to exercise in a group. This number is up for interpretation because it is unable to be determined if the males considered group sports part of their exercise or not. Only 1.7% of responders preferred exercising in a class structure. This was expected and favors the original observation that male attendance is lacking in group fitness classes. The preference to exercise alone seems to be a notable reason for the attendance bias.

Chart 1: Student Survey social preferences in exercising

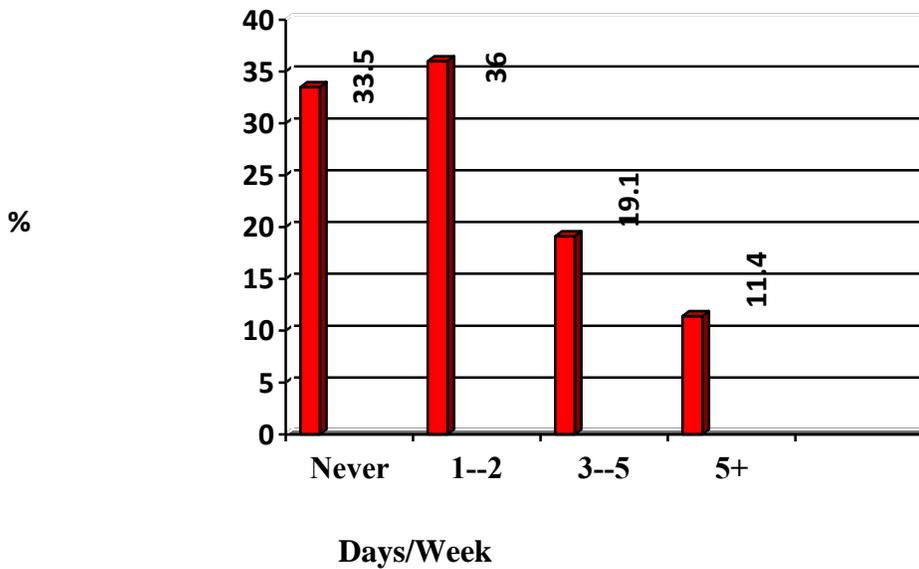


An area of physical fitness not fully addressed by the Bureau of Labor Statistics survey is that of flexibility. The survey listed yoga as one of the modes of physical activity. Yoga provides many benefits which includes stretching and flexibility. Because improved flexibility is a benefit of practicing yoga, yoga will be considered stretching in regards to this study as all other forms of physical activity are addressed in the other modes. As seen in Table 2, 20% of male exercisers practice yoga, compared to 80% of females ¹³. A trusted organization in the fitness industry, ACE (American Council on Exercise), dubs flexibility training a regrettably neglected area. Flexibility training has the ability to reduce the risk of injury, allow greater range of motion, improve posture, promote relaxation, and reduce muscle tension and soreness ³. Males tend to abandon flexibility training and stretching in their high school years. This may be due to the ballistic or bouncy stretching typically done before sporting events. The ballistic stretching technique favored by athletic coaches can promote muscle stretching and tear as a result of pushing the muscle past its comfortable length, which is very painful. Although unsubstantiated, this is a common explanation for the poor flexibility typically seen in males. More safe, beneficial modes of increasing flexibility include yoga and static stretching. Static stretching involves stretching a muscle to the point of tension, not sharp pain, and holding for at least twenty seconds.

So far the information provided by The Bureau of Labor Statistics study has shown that male exercisers train cardiovascular and strength systems the recommended amount. If yoga is considered practicing flexibility and stretching, then only a minority, 20%, of males regularly practice this behavior. However, this single source is not enough to deduce that males do not stretch or practice flexibility often enough as it does not specifically site stretching as a form of physical activity. Some group fitness classes designate a portion at the end of each session for

stretching and some classes are fully devoted to stretching. The guided structure of group fitness classes allows for each important area of fitness and safe exercising to be addressed. When asked how many times in the past 7 days they had stretched or practiced flexibility for at least 15 minutes, the majority of responders to the Student Survey did not stretch for the recommended amount of time, defined by ACSM as 60 seconds per stretch 2-3 days per week. A breakdown of stretching frequencies can be seen in Chart 2. Based on these results flexibility may be an area that group fitness can address and promote to males. The importance and benefits of flexibility is discussed in “Male Health Issues.”

Chart 2: Stretching frequencies from Student Survey



STUDENT SURVEY

The Student Survey was conducted to substantiate some discoveries found through the professional literature review as well as to observe local participation trends and barriers in group fitness classes. Open for responses from March 28th through April 9th, the two week survey received a 14% response rate. After the link was open for one week and received 200

responses a follow up email was sent to the sample to remind the group to participate and increase the response rate. Following the reminder email an additional 150 responses were received, totaling 350 responses. Although this response rate seems low, the survey was delivered to a larger than necessary sample size in order to assure a representative sample of responses. The researchers at the Student Life Research and Assessment office were satisfied with the number of responses and were confident that the number was a representation of active males on campus. An issue that may have affected the response rate is the timing of the administration of the survey. The students of the Ohio State University had just returned from the Spring break term and were likely busy preparing for the start of the academic quarter. One flaw about the Student Survey is although it is fairly representative of the active population of males on The Ohio State University campus, the information gathered from it cannot be generalized to apply to all active males or even all active college- aged males. The information is limited to the population it represents. This is still very helpful however, as the original observation of the gender imbalance in group fitness classes was observed at The Ohio State University campus. The Student Survey can be seen below.

Student Survey

Please select your place of residence

- On-campus housing
- Fraternity or sorority housing
- Off-campus housing (within walking distance of campus)
- Off-campus housing (within driving distance of campus)

Thinking about your average week, do you exercise three or more times per week?

- Yes
- No

How many times in the last 7 days did you exercise?

- None
- 1-2
- 3-5
- 5+

For what reasons do you exercise? Please check all that apply.

- Weight management
- Emotional reasons/stress reduction
- Appearance
- Overall health
- Athletic performance
- Energy
- Strength gain
- Other

If other, please specify:

How long does your entire workout typically last?

- 0-15 minutes
- 15-30 minutes
- 30-45 minutes
- 45-60 minutes
- 60+ minutes

How often do you participate in the following activities in a typical week:

| | Never | Seldom | Sometimes | Daily or Almost daily |
|-------------------|--------------------------|--------------------------|--------------------------|----------------------------------|
| Strength Training | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

| | | | | |
|--|--------------------------|--------------------------|--------------------------|--------------------------|
| Stretching | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Group led fitness class | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Varsity sports | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Informal cardio indoors (e.g. cardio machines) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Informal cardio outdoors (e.g. pick-up games) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Programmed cardio indoors (e.g. PAES fitness class) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Programmed cardio outdoors (e.g. outdoor intramurals) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Cardio without equipment (e.g. running) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Cardio with equipment (e.g. with machines, balls, rackets) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Other | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

Where do you prefer to exercise?

- Place of residence
- Outdoors
- Jesse Owens South
- Jesse Owens North
- Recreation & Physical Activity Center (RPAC)
- Adventure Recreation Center (ARC)
- Other

Do you prefer to exercise alone, with a partner, with a group, or in a class?

- Alone
- Partner
- Small group
- Structured class

In the past 7 days, how many days did you stretch or practice flexibility or at least 15 minutes?

- None
- 1-2
- 3-5
- 5+

How many days per week do you engage in cardio activities?

- None
- 1-2
- 3-5
- 5+

| | | | | | | |
|-------------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| Cycling | <input type="checkbox"/> |
| Strength-training based class | <input type="checkbox"/> |
| Core-based class | <input type="checkbox"/> |
| Pilates | <input type="checkbox"/> |
| Water/aquatic | <input type="checkbox"/> |
| Yoga | <input type="checkbox"/> |
| Rowing | <input type="checkbox"/> |

Please select the TOP 3 reasons why you attend group fitness classes.

- Structured workout
- Social environment
- Fun atmosphere
- Instructor you enjoy
- Guided Instruction
- Competitive environment
- Other

Please select your TOP 3 barriers for not attending group fitness classes.

- Cost of pass (\$50 for whole quarter, \$30 half quarter, \$5 single class)
- I don't have time
- Schedule conflicts
- Location
- Classes are female dominated
- Classes do not fit my "style" of exercising
- Prefer to work out alone
- Not a good workout
- Other

If other, please specify:

What group fitness classes do you wish were offered at the place you exercise that currently are not?

Which of the following statements regarding group fitness classes do you agree with? Please check all that apply.

- Group fitness classes are not a good workout
- Group fitness classes are not how I like to workout
- Group fitness classes are too crowded
- Group fitness classes are too expensive
- I do not like that group fitness classes are mainly attended by females
- I do not like that group fitness classes are mainly led by female instructors
- I do not like the choreography/dance aspect of most group fitness classes
- Other

If other, please specify:

Please rate your level of agreement with the following statement: Group fitness classes are geared towards women’s exercise preferences.

- Strongly Agree
- Agree
- Neither agree nor disagree
- Disagree
- Strongly Disagree

Do you think attending group exercise classes add (or would add) any benefits to your fitness?

- Yes
- No

If group fitness classes were led by male instructors would you be more inclined to participate?

- Yes
- No

How likely are you to attend a class with the following class title:

| | Very unlikely | Somewhat unlikely | Somewhat likely | Very likely |
|--|--------------------------|------------------------------|----------------------------|--------------------------|
| Yoga | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Yoga for Athletes | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Cardio Kickboxing | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Plyometric Punching | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Bootcamp | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Two-a-days Conditioning | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Indoor Cycle | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Extreme Cycle | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Body Sculpt | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Olympic Lifting | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Full Body Bulk | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Mixed Aerobics | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| MMA (Mixed Martial Arts) Conditioning | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

What can be done to make you more likely to attend group fitness classes?

Male Group Fitness Participation:

Despite the various aspects of fitness that group fitness classes provide training in, females dominate attendance rates country wide. The demographics of the responders to the Les Mills survey put truth to this observation being that 87% of responders were female participants, and only 13% male ¹¹. The classes with the highest male participation rates were indoor cycling classes and martial arts based classes ⁵. Surprisingly, when Student Survey responders were asked which types of classes they participated in, the responses were evenly distributed among all forms including cycling-based classes, strength-training based classes, core-based classes, and yoga classes. However, only 23 responders reported attending group fitness classes in the past 10 weeks, so this is a very small sample. Similar to this question, the Student Survey asked all responders, not just those who had attended fitness classes, their likelihood of attending classes with various titles. The purpose of this question was to gauge the level of interest in various class formats (flexibility, cardiovascular, and strength based) as well as identify any red flags in class descriptions. The hypothetical classes included titles such as Yoga for Athletes, Cardio Kickbox, Plyometric Punch, Boot Camp, Two-a-Days Conditioning, Indoor Cycling, Extreme Cycling, Body Sculpting, Olympic Lifting, Full Body Bulk, Aerobics, and Mixed Martial Arts MMA Conditioning. Surprisingly, the percent of males that stated they would be “very unlikely” to attend varied around 35% for all class titles and 6.4-8% “very likely.” The only two class titles that had notable differences in interest levels were Yoga for Athletes and MMA Conditioning. 16.3% of males would “very likely” attend a class titled Yoga for Athletes. Including “athletes” in the title seems to be more welcoming to males as it entitles a more challenging class. 17.9% of males would be “very likely” to attend a class based on MMA

Conditioning. These responses make it seem as if the males who are not interested in attending group fitness classes for one reason or another, are no more likely to attend if more classes were introduced that cater more towards their interests. However, at the very end of the Student Survey an open-ended question asked participants to list anything that was not addressed that may make them more interested in or likely to attend group fitness classes. Included in these responses were many suggestions to offer classes based off of the popular exercise system P90X, cross fit programs, and sport-based classes. These were very popular suggestions. An explanation for this inconsistency may be that the males responded to the question about class titles/formats, were unable to divert back to that question and answer, but became intrigued and included this in their final comments. The listed hypothetical class titles may not have interested them regardless of the intent to include sport based classes. From the suggestions, males seem to be seeking a high intensity class that other males attend. This open-ended question will be referred to later in this section.

In addition to barriers to physical activity in general, males experience barriers to participating in group fitness classes. Males participating in the Student Survey were asked a series of questions pertaining to any opinions or barriers they have towards participating in the group fitness classes offered to students. One question asked participants to identify their top three barriers for not participating in group fitness classes. The top three barriers were selected from a list that included: class prices, lack of free time, schedule conflicts, location of classes, most attendees being female, group fitness classes not fitting the preferred style of exercise, a preference to work out alone, and the idea that group fitness classes do not provide a good work out. The most common barriers to participation in group fitness classes include “Group fitness classes do not fit my style of exercising” “Cost of attending is too high,” and “I prefer to work out alone.” The

percent of males who included these selections as part of their top three barriers to participation can be seen in Table 3 below. This question was asked of each of the 350 responders, not just those who had participated in group fitness classes in the past. Therefore, these barriers are highly representative of the barriers deterring most active college males from attending group fitness classes.

Table 3: Student Survey- OSU active males top 3 barriers to attending group fitness classes

| Response | % |
|---|----------|
| Classes do not fit style of exercising | 51.3 |
| Cost of attending | 50.5 |
| Prefer to work out alone | 35.55 |
| Schedule Conflicts | 35.1 |
| Classes are female dominated | 29.7 |
| I don't have time | 33.7 |
| Location of classes | 5.7 |
| Not a good work out | 12.2 |

Following the question addressing participation barriers, survey responders were asked to identify their level of agreement with statements regarding group fitness classes. Responders were asked to either agree or disagree with a series of statements about group fitness classes. An additional question asked the group to rate their level of agreement with another statement that evaluates a common preconceptions pertaining to group fitness classes- that they are designed towards the exercise styles and needs of women. A look into common opinions about group fitness classes is provided in the answers listed in Table 4 and 5.

Table 4: Student Survey- Popular opinions about group fitness classes

| Opinion | % Agree | % Disagree |
|--|----------------|-------------------|
| Group fitness classes are not a good workout | 14.6 | 85.4 |
| Group fitness classes are not how I like to workout | 60.5 | 39.5 |
| Group fitness classes are too crowded | 36.4 | 63.6 |
| Group fitness classes are too expensive | 49.8 | 50.2 |
| I do not like that group fitness classes are mainly attended by females | 21.8 | 78.2 |
| I do not like that group fitness classes are mainly led by female instructors | 11.1 | 88.9 |
| I do not like the choreography/dance aspect of most group fitness classes | 58.6 | 41.4 |

Table 5: Student Survey- Rate level of agreement with the following statement: Group fitness classes are geared towards women’s exercise preferences

| Strongly Agree | Agree | Neither | Disagree | Strongly Disagree |
|----------------|-------|---------|----------|-------------------|
| 23.8 | 49.1 | 22.3 | 3.3 | 1.5 |

These responses bring to light the popular opinions and common misconceptions males form about group fitness classes. The biggest issues males seem to have with group fitness classes are that the format does not suit their style of exercising, they prefer to exercise alone, and classes cost too much to attend. The undesirable style of exercise provided by group exercise was explored further via the statement about choreography. 58.6% of responders noted that they dislike the choreography and dance used in group fitness classes. Being that group fitness originated with choreographed aerobics, the 58.6% of responders that claim that classes are dance-related have a somewhat substantiated opinion. Dance and step classes are not typically considered “manly” or “intense” workouts. Although group fitness class formats have branched out from their original format, this change may not be evident to males. This is where marketing and class format promotion come into play. It is human nature to judge an exercise class based on its title. It is not uncommon to hear “Bootcamp- I can’t do that, that sounds hard,” or, “Jazzercise is for girls.” Participation can be impacted by class titles. This aspect of group fitness was addressed in the survey by asked males to what degree they would consider attending classes with various titles. Descriptions of the hypothetical classes were not provided. Judgment

of attendance was provided solely based on the male's interpretation of the class title. Some of the titles insinuated that the classes would be more intense than others or be more sport-based than others, a factor that was expected to appeal to males. As discussed earlier, there were not many significant changes in interest level from class to class. In addition to class titles, the gender of the instructor has been thought to play a role in male attendance. Many fitness centers are eager to hire male instructors for group fitness classes in hopes of attracting more male participants. This notion may be tied into the thought that males may not think group fitness work outs are difficult enough for their level of fitness- a misconception shown to be unpopular among survey responders in Table 3. However, the majority of males in the Student Survey seemed to be indifferent to the gender of group fitness instructors as only 28% of them stated that they would be more inclined to participate in classes if they were led by a male instructor. Aside from the male instructor, the open-ended question addressed earlier about suggestions for increasing male interest and participation in group fitness classes received many comments recommending that more males participate, because then that particular male would be more inclined to participate as well. This is clearly an unreasonable suggestion, as a program cannot just create male participants for others to feel comfortable around. To recruit the males who suggested this it is necessary to market classes to all males in the population. Methods of doing so will be discussed in "Conclusions."

Aside from the barriers males face in participating in group fitness classes, the 6% of males surveyed who had participated in group fitness classes in the past 10 weeks were asked to identify reasons for their participation. Those who attended group fitness classes in any recreational facility within the past 10 weeks were asked to select the top three reasons why they attended. The list of responses includes: group fitness classes provide a structured work out,

social environment of classes, fun atmosphere, classes are led by an instructor you enjoy, classes provide guided instruction, and a competitive environment. The top three reasons for attending overall were structured work out (73.9%), guided instruction (60.9%), and social environment/fun atmosphere/competitive environment all tied for third with 39.1%. The 39.1% of males who stated a reason for attending group fitness classes is for the social or competitive environment seem to be motivated to participate in group fitness for the very reason 35.55% of males do not participate. 45.8% of responders stated that they prefer to work out alone rather than with a partner, small group, or class. And 51.3% of males who did not recently participate in group fitness classes selected group fitness classes not fitting into their preferred work out style as part of their reasoning. The majority of all active males surveyed do not engage in group fitness classes because it is not their style. Style can include many aspects of an exercise session including mode, duration of session, setting, other participants, etc. A large portion of those who chose not to participate in group fitness, 45.8%, did so because they prefer to be alone when they exercise. Looking at these two percentages and the fact that only 6.5% of survey takers actually partake in group fitness classes- it can be deduced that the majority of males do not enjoy or entertain the thought of group fitness classes for exercise.

The Student Survey included an open-ended question asking the participants to list the first three words or phrases that came to mind when they thought of group fitness classes. This question was asked prior to any other group fitness related question as to avoid any planted preconceptions. This question received very insightful responses of mixed implications.

Common positive phrases included: motivational, intense, encouraging, and underutilized.

Popular negative words or phrases that came to mind were: too slow, not intense enough, made for women, girly, expensive, makes participants open for scrutiny by others/feelings of

vulnerability/feelings of self-consciousness/embarrassment, fears of not keeping up with the class, too crowded, too much dancing, and unwilling/prefer to be alone. Responses that were interesting but did not identify with a positive or negative response include: Spinning, Yoga, Zumba, for old people or inexperienced people, Richard Simmons, and unknown/not promoted/would like more information about the schedules. These responses further justified the reasoning of many of the males for not participating. They simply prefer to exercise alone, are unaware that group fitness classes are going on around them, or they feel that the classes are not for males or their style of exercising. Although it was expected for males to tie their lack of participation to the style of the classes and their popularity among women, it was interesting to see that a number of males feel uneasy about participating because they feel they may be embarrassed or not be able to keep up with the intensity of a class. The responses also reaffirmed the notion that males are unaware that group fitness classes have expanded from their choreographed origins and now include strength based classes and other forms of cardiovascular classes.

CONCLUSIONS AND IMPLICATIONS

Conclusion:

There is without a doubt a lack of male participation, compared to female participation, in group fitness classes. Of the 400 responders to the Student Survey, only 6% partook in group fitness classes in the past few months. This can be attributed to multiple factors including style preferences, intensity preferences, and exercise companions preferences. The males who do participate in group fitness classes as part of their weekly exercise do so because they have very different preferences as compared to their non-participating peers. The majority of males do not participate because the class structures do not fit their preferred style of exercise, they prefer to

exercise alone (also linked to style), they are not partial to the choreography included in classes, the classes are too expensive to attend, and they believe the classes are directed towards women's exercise preferences.

There is no one answer when addressing whether or not males would benefit from engaging in group fitness programs. Engaging in physical activity has ongoing benefits, regardless of the mode. It was found that the vast majority of males decide not to participate in group fitness classes because this type of structured, social program does not suit their exercise styles. 60.5% of males who refused to participate in group fitness classes stated that the classes do not suit their preferred style of exercising. This "style" includes the preference to exercise alone, with a partner, or in a group. As discovered through literary reviews of previous studies and the Student Survey, 45.8-52% of active males prefer to exercise alone. Exercise is not a social event for males as it is females. Socialization is not as much of a motivating factor for males. As one male worded this notion in the Student Survey, "I don't like working out with friends... I compare fitness classes to the fact that girls all go the bathroom together. I'm never going to ask my buddy to come to the bathroom with me-- same with working out." There are simply social differences between males and females and this is seen through exercise preferences. On the other hand, the 6% of males in the Student Survey who did participate in group fitness classes did so for the structured workout, guided instruction, and, surprisingly, the social environment. This minor percent of males who enjoy participating in group fitness classes do so because they have very different preferences and motivations to exercise than their peers.

It is important to get more men involved in activities that focus on improving flexibility. As previously stated, there is a misconception that men only focus on strength training and avoid aerobic and flexibility training. It has been found by the Bureau of Labor Statistics, however,

that males engage in just as much cardiovascular activity as women. Whether this activity is accomplished through the use of cardio equipment, running, walking, jogging, swimming, cycling, or ball sports, is irrelevant. The bottom line is that males do not need to alter this aspect of their training. There is no benefit in participating in a step aerobics class for cardiovascular benefits instead of a pick-up soccer game. With their competitive nature and enjoyment of sports, men receive ample cardiovascular benefits participating in ball sports while enjoying the activity at the same time. Engaging in more flexibility training can prevent injuries from strength training, sporting events, and activities of daily living. With more males participating in sporting activities as a form of exercise, injury prevention is especially important. In the Student Survey responders were asked a series of questions that described their typical exercise formats including mode or type and frequency. The purpose of these questions was to deduce whether the particular population of males trains in all three areas of fitness or not. Through these responses it has been determined that the vast majority of males are not stretching as often as recommended by ACSM. Although not addressed in the topic of this research, it would not be surprising to find that this is a problem common among both males and females. Stretching and flexibility are much neglected in terms of overall fitness. Regular stretching reduces muscle tension, increases range of motion, and reduces risk of injury. With many males participating in sports as their form of cardiovascular activity, reducing the risk of injury is very important. Popular sports males participate in for aerobic gains such as basketball, soccer, and football all include quick changes of pace and require a certain level of agility to participate. These actions can very easily cause injury to the body if not for proper body mechanics, allowed through supple, strong muscles.

Implications:

Based on the information gathered that identifies males as lacking in flexibility and not participating because of personal preferences, is reaching out to the male population and programming towards their needs worthwhile? Since the males who are active are already getting the recommended amount of strength and cardiovascular training, regardless of the mode they prefer, promoting these types of classes to them is unnecessary. The males who have opposing preferences regarding exercise style than the majority of the population are those who are already participating in the classes. Although some males in the Student Survey suggested that high intensity, short duration classes based off of cross fit and P90X training be offered, the number of male participants these classes would actually acquire is most likely very small. This is because despite the basis of the class, the main components of group exercise that the majority of males dislike- structure, style, and social setting, would still be included and therefore a deterrent. Listening to the opinions and preferences of these males and programming classes based off of this feedback could result in slightly higher participation, and there is something to be said for improving the fitness level of individuals. However, these males are already training in the way that would be addressed by these types of high intensity classes, without the downside of the social environment.

To address the issue of flexibility, the same issue arises. What better way to get more males to stretch their muscles than to gather them all in a group and show them exactly how to effectively stretch? Efforts could be made to create shorter duration group fitness classes based solely on stretching, or to promote yoga classes to males. But yet again, the social aspect would still be present in this environment. Perhaps the best way to encourage stretching among active males to

decrease their risk of injury is through educational programming. Recreational facilities can make efforts to educate their members on the benefits and importance of stretching without turning it into a group class. Offering small educational demonstrations about effective and safe stretches is a suitable option. By keeping the group to a minimum and focusing solely on stretching rather than an entire work out, the social environment and undesirable style of exercise would be somewhat removed. Perhaps personal training departments in recreational facilities could offer this service. Additionally, relating the benefits of stretching to the training styles and interests of males would increase the likelihood of them engaging in the activity. So, describing the benefits as related to sport participation or power and strength is something that would create an appealing twist. Group fitness classes are an extremely useful resource for participation in physical activity. However, what is useful and motivating to one person or group of people is not necessarily useful, motivating, or desirable to others. As long as males are partaking in the recommended amount of physical activity and are satisfied with the way they are doing so, there is no need to change their ways.

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