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**Analyzing Intramural Sport Participation at the
State University of New York College at Cortland**

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APPRECIATION PAGE

I would like to thank my mom, dad and brother. You have all had unwavering support during this entire six-year process to get both my bachelor's and master's degree and have pushed me to be better each day. I would like to express my sincere appreciation to my entire committee. You have all given me fantastic insight and constructive criticism throughout this process that has assisted me in writing the best possible thesis I could have. A very specific thank you to Professor Erin Morris. You helped me each step of the way and I could not have finished this without you.

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Introduction

Intramural sports are an important aspect of the college experience. The program gives students another opportunity to experience college outside of schoolwork. According to the American College Health Association, the national average of college students who participate in intramural sports is 17% (Gleason, 2019). During the 2019 academic year, SUNY Cortland enrolled 6,834 students, both at the undergraduate and graduate level. Within that, 93% (6,379) were considered full time students (“Enrollment Fall 2019, n.d.). Based on the national average of 17%, approximately 1,161 SUNY Cortland students would have participated in intramural sports during the fall semester. While examining SUNY Cortland Intramural Sports departments’ annual reports, it was found that 1,581 unique students participated in various intramural sports events during the fall of 2019 and spring of 2020.

While the participation number is around the national average, it has declined in recent years. Using data from the 2015-2016 academic school year at SUNY Cortland, participation during the fall semester was 1,992. Spring registration, which is typically higher than fall registration for the Intramural Sports program, has seen a decline as well. 2,380 students participated in intramural sports during the spring of 2016, compared to 1,678 participants in the spring of 2019 (data is available for spring of 2020, but is not being included due to COVID-19 shortening the semester). Those are drastic decreases in participation levels that require further examination.

Understanding why college students do not participate in recreation and leisure activities has been researched heavily in the past, but very little in recent years. Young, Ross and Barcelona (2007) completed extensive research into the perceived constraints in campus recreational participation, but little research has been established since. Instead, researchers have

taken a broader perspective, looking more towards leisure constraints, rather than campus specific constraints. It is important to understand those constraints, as participation in leisure activities is not easy for some students. A great way for students to overcome their constraints is to utilize negotiation strategies. White (2008) defines constraints as factors that may inhibit activity participation or limit satisfaction. Researchers have recognized that interpersonal, intrapersonal, and structural constraints make participation in leisure activities challenging for students. Negotiation strategies help students to overcome the constraints they face, although they typically involve sacrificing something else in order to participate.

Equally important to understanding constraints to leisure participation is motivation to participate. Motivation for college students comes in many broad facets, such as spending time with friends, getting physical exercise, being able to spend time away from homework or to help them grow. Dillard & Bates (2011) analyzed those motivators and categorize them as inner direction, outer direction, results driven, and experience driven. Inner direction and outer direction fall on opposite ends of the spectrum, while results driven, and experience driven are opposites as well. Cooper, Schuett, & Phillip (2012) established a Physical Activity and Leisure Motivation Scale, which evaluates survey takers based on their intellectual, social, competency-mastery and stimulus-avoidance motivations. Researchers determined what is required to be motivated. The Self-Determination Theory recognizes that a person has to meet one of the three psychological needs to be motivated: autonomy, competency and relatedness (Zach, Bar-Eli, Morris, & Moore, 2012). If one of those is met, then a person will be motivated to participate in an activity. However, not all motivation is the same, as a person can receive intrinsic and extrinsic motivation. Both intrinsic and extrinsic motivation look to determine the causes that drive a person to behave a certain way.

Participation in recreational sport activities, specifically intramural sports, have countless benefits to college students. Astin's Theory of Student Development explores the relationship between the amount and quality of time and energy that students spend in college activities and the amount of learning and developing students receive (Sturts & Ross, 2013). The theory can be associated with campus recreation programs by examining how students learning and developing is affected by participation in campus recreation events. Outside of potential learning and developing, studies have shown how participation in campus recreation related to academic success (Vasold, Deere, & Pivarnik, 2019) and graduation rates among students who participate (McElveen & Ibele, 2019).

Marketing efforts put forth by recreational sport departments have a part to play in participation in their events. As technology has advanced, most recreational sport departments have started pushing out marketing content through social media. With the extensive social media content published now, campus recreation departments need to make sure their content stays engaging, otherwise it will fall to the wayside. Students will gravitate towards social media, but not if campus recreation departments fail to produce quality social media content. More importantly, Ciuffo, Johnson & Tracy (2014) discovered that the student body prefers mass e-mails more than any other means of marketing. However, social media and e-mail marketing have the potential to be less than ideal. Technopedia (n.d.) states social media fatigue means social media users tendency to pull back from social media when they become overwhelmed with too many social media sites, too many friends and followers and too much time spent online maintaining these connections. Students receive e-mails from most departments on campus, which causes some e-mails to be ignored out of fatigue from receiving constant e-mails.

Campus recreation professionals need to continue to grow and change their programs to accommodate the trends in campus recreation. College's campus recreation facilities have continued to become more and more state of the art each year, as facilities are including more groundbreaking aspects. Physical aspects of their facilities are not the only growing aspect of campus recreation, as integrating health, wellness and academics has moved to the forefront of Recreational Sports (Bogar, 2008). More specifically, intramural sports programs have been attempting to combat the students' requests to incorporate more eSports into their programs. The struggle with eSports is the different priorities students place on playing video games, whether it is competitively or casually.

The research does have its limitations though, mostly relating to publication dates, lack of research in some areas and differences between SUNY Cortland and the schools the research was conducted at. Some of the research is broad, concentrating more towards the overall motivators and constraints of recreational sport programs. The motivators and constraints that apply to fitness participants may not be the same ones that apply to intramural participants. Similarly, marketing efforts change from campus to campus. A school with poor social media content would not benefit from pushing content through social media. The research published has also been either not specific as to which school it has been conducted at or the school has a much different school size and location than SUNY Cortland, making it not very applicable. Therefore, more current research on intramural sport participation is needed. The purpose of this study is to understand the factors that impact intramural sport participation decisions of students at SUNY Cortland.

Literature Review

Leisure Time of College Students

An important aspect of students' collegiate experience is leisure activities. Their time in college is more than just going to class and doing homework. Full-time university and college students spend three to four hours in leisure activities per day (Doerksen, 2012). The age of a college student plays a large part in their free time and their leisure activities. 24-year-olds spend an average of 3.6 hours per day during school months going to class and doing homework. Meanwhile, that number decreases to 2.8 hours per day for 18-year-olds ("How College Students Spend Their Time", 2011). The overall average for 18-24-year-olds, typically the age range of college students, is 3.3 hours spent in class and doing homework ("How College Students Spend Their Time", 2011). How students spend that free time is important to understanding their interests. Full-time college students spend an average of 9 hours per day sleeping, meaning, on average, they spend 12.3 hours sleeping, attending class and completing homework ("How College Students Spend Their Time", 2011). Traveling (1.4 hours) and working and related activities (2.3 hours) take up a large portion of the day too ("American Time Use Survey", 2016). College students between the ages of 18-24 also spend an average of one hour per day eating and drinking, as well as 0.8 hours "grooming", which includes showering and dressing ("How College Students Spend Their Time", 2011). Furthermore, out of the 150 students that Mosony, Konyves, Fodor, & Muller (2013) studied, 75% identified themselves as being in a relationship. 82% of those students spend their free time with either their friends or significant others. While that is not surprising, as social interaction is a big piece of the college experience, it does not give enough of the information needed for intramural research. Their study does not ask what those students like to do with their friends or relationship partners. Kadir & Ibrahim

(2017) concluded that the highest rated leisure activity among students was watching various television shows and actively doing sports.

That does not paint the whole picture of what students are doing for leisure. The survey also listed going to the theatre, reading books, participating in social activities, participating in scientific and culture activities, surfing the internet, crafts, listening to music, walking around the town, visiting friends, watching sports and playing musical instruments as other options (Mosony, Konyves, Fodor, & Muller, 2013). The issue with those options lies in the vagueness and omission of other options. Subjects such as video games, working out, going to a bar or hiking, among other things, are not included in the survey. Their omissions do not allow readers to get a full grasp of popular activities students are partaking in. The advancement in technology may have also affected their leisure activities. High tech televisions and laptops give new opportunities for activities while new gaming systems make playing video games a different experience than in 2005. Furthermore, listing a topic as “actively doing sports” is very broad. Doing sports can consist of intramural sports, club sports, varsity sports or adult leagues. This causes the information to be less valuable, as it is not descriptive enough.

Constraints

With participation in leisure activities, such as intramural sports, there are also barriers and constraints. Unfortunately, there is not much research into the topic. The limited research breaks leisure constraints into three categories: interpersonal, intrapersonal and structural constraints (Shifman, Moss, D’Andrade, Eichel, & Forrester, 2011). Interpersonal constraints are viewed as the result of social relationships desired for leisure participation (Beggs, Elkins, & Powers, 2005). Essentially, interpersonal constraints address college students who only want to participate in leisure activities if they have friends to participate with and would likely not

participate on their own. The authors looked at intrapersonal constraints as the involvement of physiological attributes that interact with leisure preferences (Beggs, et al., 2005). A student who views themselves as out of shape and would therefore not want to join a flag football team out of an internal constraint of self-consciousness is considered an intrapersonal constraint. The final constraint is labeled as a structural constraint, which are concrete factors that result from external conditions (Beggs, et al., 2005). The amount of free time for leisure a college student possess is defined as a structural constraint. While understanding the different types of constraints is very important so departments can help students overcome them, departments also need to understand which are more prominent than others and which constraints are hardest for their students to overcome. Studies have shown structural constraints to be the most challenging that students must overcome (Wood & Danylchuk, 2015). Students who do not have the ability to participate in intramural events due to constraints that may be beyond their ability to control becomes a challenge for recreational sport programs. They must determine how to help a student bypass constraints such as a lack of time or stress. Recreational sport departments do have the ability to help students overcome these obstacles through strong leadership and constant communication.

Young, Ross and Barcelona (2007) conducted a study to determine, in depth, the specific constraints to recreational sport participation. Their research matched what has previously been established as constraints to general leisure participation. 83.9% of the subjects studied identified a lack of time because of work, school or family as their reason for not participating in recreational sport activities (Young, Ross and Barcelona, 2007). That mark was the highest of any constraints studied by the researchers. Fear of violence (83.1%), lack of transportation (82.7%), social-cultural norms (81.2%) and the available activities are inappropriate for their identified gender (80.8%) also received high results (Young, Ross and Barcelona, 2007). Some

of those constraints, such as social-cultural norms and a lack of transportation, represent a challenge to professionals, as solutions may be beyond their power. However, students who fear the potential violence of the program and view the activities as inappropriate for their gender are perceptions the program can alter. Perception is reality, so if students view a department in that light, then they will not participate and will pass it on to their friends. These constraints are drastically different from others, as they are perceived constraints, rather than physical constraints. That means negotiation strategies to overcome them come from intrapersonal constraints, something that students can overcome if they put their mind to it and change their perception.

College students overcome their interpersonal, intrapersonal and structural constraints through negotiation strategies. Those strategies are an internal negotiation for students, as they look to give up certain things in order to still partake in leisure activities. Young, Ross and Barcelona (2007) suggest that “leisure participation is not the absence of constraints, but on the negotiation through them.” A very popular negotiation strategy is time-management (Beggs, Elkins, & Powers, 2005). Students may not take part in the leisure activity they would ideally like to but have the ability to participate in another one. The most effective way to incorporate time-management strategies into participating in intramural events is to reorganizing priorities. Students who understand the benefits of Recreational Sport participation but struggle with structural constraints reprioritize their weekly activities. This usually comes in the way of setting aside time each week to participate in intramurals (Wood & Danylchuk, 2015). Beggs, Elkins, & Powers (2005) recognized that time-management strategies are the most common negotiation method but may be established prior to entering college and can take time to learn if not

previously learned. The research that determined the constraints to leisure participation is very useful in understanding the decline in intramural sports participation in recent years.

Most of the research on constraints was published 15 years ago. Much has changed in the 15 years since the research was conducted. Technology has evolved, as many students now have personal laptops, smart phones and enhanced gaming systems. This all changes their leisure activities and their constraints to participation. Registration for Recreational Sport events used to be done on pen and paper, making it a longer process. Now, that same registration is on an app for smart phones, making it at students' fingertips. New research should be conducted in order to determine how constraints to participation have evolved and changed.

Motivators

When understanding the leisure activities that college students prefer to participate in, it is equally important to research their motivations for participating in those activities. Since Recreational Sports is considered to be a leisure activity, their specific motivators need to be studied independently. Dillard and Bates (2011) found four broad factors that help to explain why people partake in Recreational activities. Those four categories were inner direction, outer direction, results driven, and experience driven. Inner direction and outer direction are opposites, just as results driven and experience driven are also opposites. Inner direction refers to one's ability to participate in activities due to internal features, such as individual physical fitness or mastery. Opposite of that, outer direction looks at more of a social way to participate, as it is based around other people (Dillard & Bates, 2011). Researchers have also been able to categorize motivators into four broad categories: intellectual, social, competency-mastery and stimulus-avoidance. Those four categories make up the Physical Activity and Leisure Motivation Scale, also known as PALMS (Copper, Schuett, & Phillips, 2012). The scale uses a ranking

system, typically one through ten, for surveys to determine which motivators are stronger than others. Utilizing PALMS gives researchers three significant advantages when measuring physical activity. First, the motives that emerge from the qualitative research fit the intrinsic-extrinsic motivation framework that is utilized in the Self-Determination Theory (Zach, Bar-Eli, Morris, & Moore, 2012). Additionally, the process of generating a list of motivators supports a broad framework and the motives reflect considerable similarities with the items in a 30-item questionnaire designed by Zach, etc. (2012). The highest rated motivation to participate in Recreational Sport activities are physical motivators, which is a piece of competency-mastery motivation (Beggs, Nicholson, Elkins, & Dunleavy, 2014). Students who partake in intramural activities tend to enjoy the physical fitness they receive from it, whether that physical fitness is continued to be developed or to maintain their fitness. Every student has different motivators for participating in the leisure activities they partake in. While physical fitness is the most common motivation tactic, there are other factors to participating in recreational sport events, such as social interactions. When looking at social interactions, Webb & Forrester (2016) have identified peer-created motivation as another way of looking at intramural participation. More specifically, peers have the ability to both positively and negatively affect a person's experience in the activity they are partaking in. Furthermore, students' peers can also influence their perceptions of competence and comfort level (Webb & Forrester, 2016). Participating with peers allows a student's friends to either mock or support them on their athletic performance, therefore boosting or crumbling their competence and comfort level. Furthermore, participating with peers a student does not get along with can destroy their enjoyment in the event.

Competency and mastery skills have also become a common motivator for students, as well as stimulus and avoidance factors (Cooper, Schuett, & Phillips, 2012). Students are looking

for activities that are not related to academics and have the ability to stimulate their growth. Recreational Sports has become a great way for students to escape schoolwork for a little while. No student wants to spend their entire time at college strictly focusing on their grades and their homework. Part of the college experience is escaping academics in order to participate in other events and stimulate their maturity. Some researchers have viewed the level of priority on winning intramural events as a potential stimulus killer (Kanters & Forester, 1997). Instead of viewing the priority placed on winning in a negative light, those researchers could also look at the possibility winning has on students' motivations. Intramural sport participants have the ability to be driven to sign up for league play strictly in order to win. While losing a game would be a hit on morale, and possibly motivation, they also have the ability to motivate a student to try harder and try again. The motivation caused from losses is not a universal motivator, as students who participate for fun would not have the same mindset as those who are attempting to compete.

When comparing motivation tendencies of students who do not participate in Recreational Sports activities and those who do, most of their motivators stayed the same. Non-Recreational Sport participants were still motivated to partake in their leisure activities by social factors. Intramural sport events are not the only ability college students have to engage in social activities with their friends. Students who did not engage in intramural sports, however, lacked the same level of competency and mastery motivation as students who signed up for Recreational Sport events (Beggs, Stitt, & Elkins, 2004). Leisure activities consisting of reading books or watching television does not require a drive to have mastery level skills. College students who enjoy video games may have a high level of competency and mastery level motivation, as some of them may want to be the best at that particular game. However, a potential motivator for

students who create flag football teams is to improve their football skills, particularly playing defense, throwing a football and catching.

Ultimately, there are psychological needs that promote motivation, which has been described as the Self-Determination Theory (Cooper, Schuett, & Phillips, 2012). The theory provides a framework for understanding motivational and well-being issues linked with physical activity involvement (Wilson, Rogers, Rodgers, & Wild, 2006). Self-Determination Theory (SDT) is based around the concept that a person has three psychological needs that promote motivation: autonomy, competence and relatedness. Researchers have defined autonomy motivation as the need to feel self-dependent in the activity they are participating in. Meanwhile, competence motivation is looked at as the need to experience mastery of the activity. The last category, relatedness motivation, has been described as the need to experience social interactions from the activity. The important facet of the theory is its concept that a person will be motivated to participate in an activity if one or more of those psychological needs are met (Cooper, Schuett, & Phillips, 2012). Although self-determination is generally the goal for individuals, people also receive motivation from external sources (Ackerman, 2020). The Self-Determination Theory addresses both types of motivation; intrinsic and extrinsic motivation. Ackerman (2020) identified extrinsic motivation as a drive to behave in a certain way based on external sources, such as a grading system or employee evaluations. Alternatively, Ackerman (2020) defined intrinsic motivation as internal drives that inspire people to behave in certain ways, such as morale and core values. Ackerman (2020) argues that interpersonal events, rewards, communication and feedback that gear towards feelings of competence when performing an activity will enhance intrinsic motivation for that particular activity. Alternatively, Ackerman (2020) claims, in order to achieve that level of intrinsic motivation, an individual would need to

feel as though the performance itself is self-determined. It would be plausible for a Recreational Sports department to market themselves as a department that can provide specific psychological motivators.

Benefits

Students have their own preferences on which leisure activities to participate in, but that does not mean that they all have positive benefits for doing them. A student may enjoy watching television but watching television all the time is not productive and can be a massive strain on their eyes. The benefits of participating in Recreational Sports activities have been shown to have numerous benefits, both recognizable and underlying. Astin's Theory of Student Involvement suggests that the amount and quality of the time and energy that students spend in college activities is proportional to the amount of student learning and development they receive (Sturts & Ross, 2013). The theory assumes that student learning and development will not be impressive if educators focus most of their attention on course content, teaching techniques and books (Astin, 1984). Instead, student involvement becomes the focus of concern. The theory of student involvement is more concerned with the behavioral process that facilitate student development, essentially exploring how students develop (Astin, 1984). When examining Astin's Theory of Student Involvement to Recreational Sport programs, it can be concluded that high quality programs and multiple student participation rates lead to increased learning and student development. Astin (1984) was able to conclude that students who participate in extracurricular activities of almost any type are less likely to drop out. Since both faculty and staff are minimal at 2-year colleges, most students are commuters and a large portion of students are part-time students, there is less involvement in campus activities, such as Recreational Sports. Astin (1984) found that students have a greater chance of dropping out of 2-year colleges than 4-year colleges.

Students who participate in intramural sports report higher grade averages than students who do not. The results from a Vasold, Deere, and Pivarnik (2019) study have shown a small but positive correlation between recreational sports participation and several important collegiate core concepts, such as retention, graduation rates and various social factors, including a sense of belonging. More specifically, research has been conducted regarding retention rates among first-year college students who participate in intramural sports. Approximately 90% of first-year students who participate in intramural sport activities graduate from their respective colleges (McElveen & Ibele, 2019). Research does not dive into the reason why retention rates increase for first-year students who participate. Researchers have determined that recreation participants experience a greater sense of community while also improving their overall wellbeing, health and fitness levels. Furthermore, Recreational Sport participants receive an avenue for developing relationships through participation (McElveen & Ibele, 2019). No research has been published to explain the increased retention rates for students who participate in intramural sports activities. A possible explanation is the wellbeing, relationships and sense of community that students receive from participation causes them to stay more emotionally attached to the college, therefore not transferring or dropping out.

Marketing

Marketing could be essential to a Recreational Sport department pushing their message to an entire campus. The participation or lack of participation in intramural sport activities may be due to the lack of promotion (Achen, 2015). Students want to feel a connection with the activities they are investing their time in (Dyer, 2018). Social media is used by many universities to market their activities to their student body. Promoting some activities, such as flag football, indoor soccer and basketball, is easier, since those sports are already very popular. Utilizing social

media correctly can help to increase student interest in intramural events that they would not have typically attended (Dyer, 2018). Intramural sport programs should develop creative ways to market their programs to increase student participation and create two-way dialogues (Achen, 2015). Anything from highlight videos from games or quotes from star players can help to make intramural sports more personal through social media. Focusing on building and maintaining relationships with students deepens the connections between students and intramural sport programs (Achen, 2015).

Ciuffo, Johnson, and Tracy (2014) have determined awareness and marketing efforts to be the top factor affecting intramural participation. Recreational Sports programs may have a grasp over the motivations of college students to participate in their events, but it would be irrelevant if their use of marketing is less than ideal. Researchers have determined that the student body prefers mass e-mails and promotional materials to be informed of intramural events (Ciuffo, et al., 2014). Promotional materials can come in the form of a sticker for participating in a scavenger hunt. Participants may play intramural sports regardless of whether they receive a promotional item but would want the item if it was offered. In addition, when considering the use of promotional items, budgetary concerns are ever-present. Not everyone associated with a college prefers their information the same way. Alumni and faculty/staff prefer to learn through word of mouth (Ciuffo, et al., 2014). This opens the door to the possibility they are more inclined to participate for social reasons. Carbone (2020) explains techniques to successfully marketing to college students, as well a technique that is not well received. The biggest mistake to avoid is to market in the local paper and on television. Targeting incoming students at orientations and visiting classes are two aspects that the department does but does not do well. Visiting classes only occurs when teaching assistants reach out to the department, rather than the department

attempting to create strong relationship with COR 101 (a class required for first year students during their first semester on campus) professors and making it a piece of their curriculum. As for orientations, incoming freshman for the fall of 2020 were the first ones to have any engagement with intramural sports, as the department attempted to run a Fortnite casual play night during orientation. Carbone (2020) also recommends advertising on social networks, and using contests, giveaways, and other free items. SUNY Cortland Recreational Sports, as a whole, does market through social networks, although they do not have many current students as followers and typically register low engagement on their posts. Contests and giveaways are being incorporated in an attempt to increase engagement and attract more current students.

Achen's (2015) study utilized conducted a sample of undergraduate students at a large, public, Midwestern university to determine their engagement with their campus recreation's Facebook and Twitter accounts. The results showed a low level of following from students, although also found the majority of students at the Midwestern university used both Facebook and Twitter. SUNY Cortland's Recreational Sports social media accounts, including Facebook and Twitter, has experienced issues with current students following their social media accounts. Achen (2015) suggests two potential suggestions. One reason may be that students are not willing to interact online with student services such as Recreational Sports. The other suggestion is the Recreational Sports department does not make an adequate effort to connect with students on social media, including a lack of promotion of their social media accounts. Students who participate and engage with both Twitter and Facebook also participate in the least common activities, such as racquetball, outdoor pursuits and the climbing wall (Achen, 2015).

Trends

A big gap in the research regarding Recreational Sports and the departments participation numbers is concerning current trends. Research has not been conducted on where students' interests lie in regards to recreational sports. However, trends for recreational sport facilities have been established and published. The University of Michigan, University of Pennsylvania, University of Texas, and Pennsylvania State University have jump started renovating their older facilities (Bogar, 2008). The University of Nevada at Las Vegas incorporated a spa, swimming pools, a bistro and a juice bar in their new recreation center. The University of California, Santa Barbara invested in a 15-foot climbing wall. Likewise, the University of Michigan has a 30-foot-tall climbing wall that students must pay \$10 annually to use (Bogar, 2008). SUNY Cortland's Student Life Center already possess a climbing wall, swimming pools and a bistro to go along with basketball courts, a massage room and a table tennis room. Furthermore, the building was opened in March of 2015, so it is a relatively new facility.

The two big trends in campus recreation facilities that SUNY Cortland does not possess are integrating academics and sports and integrating health and wellness (Bogar, 2008). Academics has traditionally been a separate entity from campus recreation at SUNY Cortland. While some collegiate campus recreation facilities will host classes for Physical Education or Recreation majors, SUNY Cortland's campus recreation facility is only utilized for open recreation. The closest academics and Recreational Sports get to collaboration is the occasional Graduate Assistant appearance in COR 101 classes. Likewise, health and wellness seem to be lacking in SUNY Cortland's Recreational Sports department. Peer health counseling for students, nutrition program and rehabilitation areas are just a few examples of wellness programs that are held by other organizations at SUNY Cortland.

ESports is becoming more popular each year. According to Adgate (2020), the global revenue for eSports was projected to reach \$1.1 billion by the end of 2020. The projected 2020 revenue would be a 15.7% increase from 2019 and would more than double the revenue from 2016. Adgate (2020) projects eSports revenue will surpass \$1.5 billion in 2023. Not every school has gotten on board with eSports. “College Esports Across the United States” (2020) shows there are over 400 eSports programs in the United States competing on an intercollegiate level. Alaska, Delaware, Idaho, Mississippi, and Wyoming each have one team in their state, respectfully (“College Esports Across the United States”, 2020). Alternatively, California, Illinois, Missouri, New York, Ohio, Pennsylvania and Texas each have over 20 teams and account for approximately 30% of the countries collegiate eSports programs (“College Esports Across the United States”, 2020). The amount of schools with eSports programs have begun booming in the past 3 years. 101 schools started an eSports program in 2017, with 233 starting up in 2018 and 346 beginning in 2019 (“College Esports Across the United States”, 2020). However, every school has a different student body, different resources available and different interests, which can lead to a lack of interest in eSports. Those differences are even very visible within SUNY. According to Shea (2018), SUNY Canton built a \$500,000 eSports arena for their varsity eSports teams in 2018. The universities chief information officer, Kyle Brown, says eSports helps to bolster students’ education and social standing (Shea, 2018). SUNY Canton also became the first SUNY school to create a system-wide eSports league, which was implemented when the COVID-19 pandemic began (Burt, 2020). On the other side, SUNY Cortland has been offering eSports as a part of their intramural sport programing but has had to cancel numerous events due to a lack of participation. That does not automatically mean there is no interest from the student body. Factors such as poor marketing, a lack of understanding of what students want or other

factors can contribute to that. Furthermore, no two schools are the same. Research conducted at one school may not be applicable to other schools, regardless if schools are similar in size or other demographics. Two schools can be similar sizes but offer vastly different degrees, meaning they would attract a very different student body. This can lead to different student interests. A school such as SUNY Canton may have an increased interest in eSports due to the schools focus on technology.

It is important to observe the trends in parks and recreation as well. Students may be gravitating away from recreational sport departments due to better offerings from parks and recreation. These trends can also serve as programming ideas for campus recreation departments. Dolesh (2020) identifies “adult recess” as one of the biggest booming trends in parks and recreation. Adult recess leagues have formed with multiweek seasons for games such as tetherball, hopscotch and kickball. Another big trend Dolesh (2020) identifies is cause-related programming. Those programs would be sponsored by a local organization that would pair the participants with an item from their organization. Dolesh (2020) explains how a local animal shelter would sponsor a 5K run that would pair shelter dogs with the runners. The event would raise revenue, as well as expanding audiences for both the shelter and the parks and recreation program. The big constant between collegiate recreation and parks and recreation is their inclusion of eSports. Dolesh (2020) explains how many parks and recreation organizations are starting to build eSports gaming rooms and facilities for their patrons to use. Some of their eSports gamers are even hiring coaches so they can improve their performance.

Previous research has helped Recreational Sport programs to understand why college students participate in their programs. Those reasons vary tremendously, from physical fitness to social interactions to mastery. Furthermore, the Self-Determination Theory shows how there are

three psychological needs that promote motivation and student's only need to achieve one of them to participate in leisure activities. Somewhat similarly, Astin's Theory of Student Involvement shows how students who participate in recreational activities will receive an increase in student development (Astin, 1984). Student development is not the only benefit of participation, as students may also get a greater sense of community, social interactions and wellbeing. None of that matters if Recreational Sport programs do not market themselves well. E-mails and promotional items are the most successful ways to promote activities to college students, while word of mouth dominates faculty/staff and alumni marketing. While all of that helps to understand why college students are participating, it does not help to uncover why they do not participate. Most of the research on participation in campus recreation was conducted more than 10 years ago. Therefore, it does not take into account the changing student body or the changes to colleges. Furthermore, most of the research conducted was at larger universities, which may draw different student demographics than SUNY Cortland. Therefore, this study is meant to better understand the choices SUNY Cortland students make around intramural participation.

Methods

Introduction

This study used quantitative surveys to determine the reasons SUNY Cortland students do not participate in intramural sports. The participants were current SUNY Cortland students. The list of participants included undergraduate students and graduate students, as both are eligible to participate in intramural sport activities. Barriers and constraints change for individual sectors of college campuses. Freshman may be unaware of offerings and those who are aware of it may be timid to fully branching out to the college experience. Sophomores and juniors who have been more established on campus may get entrenched in the activities they have partaken, causing them to potentially lack the interest to try new activities. Seniors focus is more towards graduation and ensuring they have as much fun as they can before they graduate, rather than participation in some of their other leisure activities. Graduate students typically have either a graduate assistantship or part time job to focus on as well as academic, giving them limited free time. Additionally, graduate courses are typically later in the day at SUNY Cortland, causing time conflicts with the time intramural sports are typically held. The differences in each select groups potential constraints causes a need for a survey to be sent to each group. The survey starts by focusing on which activities the students have participated in last year as well as the leisure activities they partake in. The focus then shifts to the leisure motivation questionnaire, which addresses the reasons why students and faculty/staff enjoy participating in leisure activities (“Leisure Motivation Questionnaire”, n.d.). After determining the most appealing marketing concepts, survey participants focus on the constraints they experience to participation in leisure activities and their reasons for not wanting to participate. One potential reason for a lack of participation could be a lack of intriguing offerings. Therefore, a section is dedicated to

understanding the types of offerings respondents wish to see. The last aspects of the survey relate to demographics, as it is important to understand if the constraints facing leisure participation are related to class, race, gender, living situations or amount of time on campus. IRB approval was received before data collection began

Sampling

A population survey was utilized for this study. Every member of SUNY Cortland's student body had access to participate in the survey (McCombes, 2019). The survey was deployed using seven separate tactics. The first tactic to be employed was via flyers in academic & residence life buildings. The design of the flyer was created using Canva and included a QR code that linked students directly to the survey. On the same day the flyers were posted, the survey was deployed using a campus communicator e-mail. Since the researcher did not have access to the campus communicator, the IRB approved email was sent to the Professional Studies Dean's secretary for deployment. A second email was sent exactly 15 days after the first one through the Professional Studies dean's secretary. Social media was then utilized to distribute the survey. SUNY Cortland's Intramural Sports and Sport Club Instagram page posted an approved graphic for the survey while putting the link to the survey in their bio. As the graduate assistant for intramural sports, the researcher was able to upload the social media post without requiring approval. SUNY Cortland's Sport Management Department's Twitter account also posted the graphic to the survey, which included the URL. In order to get the graphic posted, the researcher received approval from Professor Ryan Vooris, who is in charge of the Sport Management social media accounts. The graphics used for social media were the same graphic as the flyers but included a Tiny URL instead of a QR code. Later that day, SUNY Cortland Bulletin released a graphic of the flyer with a QR code on the schools Visual Messaging System

(VMS). This message would stay on the VMS for two full weeks and was included in the cycle of messages twice in order to allow the graphic to be seen more. During that week, Dr. Erin Morris, the chair of the researcher's thesis committee, sent a link to fellow Sport Management professors to share with their students. The final marketing effort for the survey consisted of a focused email. Institutional Research and the Student Registration office provided a list of students who were either sophomores, juniors or seniors and their email address. The email list consisted of 4,823 unique email addresses, all of whom were sent the survey. Due to the COVID-19 pandemic, first years were excluded because they had not had the opportunity to participate in traditional intramural sport offerings. Zheng (n.d.) conducted a sample of individual respondents to a survey invitation and found that 80% of responses were collected within a week, with only 11% collected during the second week. While Zheng found the number of responses dipped during the second week, the researcher found it beneficial to still send it out during the second week, in an attempt to receive as many responses as possible. The original deployment of the focused email was dispersed over Wednesday, Thursday and Friday of the first week of deployment. In order to avoid the email being detected as clutter or junk, the email was only sent to 50 students at a time and broken up in 15-minute intervals. The focused emails were then sent again on Thursday and Friday of the following week. This time, the email list was sent in reverse and each email was sent to 100 students. This would allow students to receive the email on a different date and time than the original email.

Data Analysis

Factor analysis was used for this research. Information was provided on the basis of data, which will include mean and standard deviation. Factor analysis was chosen to reduce the large number of variables that were a part of the Physical Activity and Leisure Motivation Scale and

the Constraints Scale. The analysis extracts the maximum common variance from all variables and puts them into a common score (“Factor Analysis”, n.d.). Following the factor analysis, a T-Test and ANOVA test was run on the data sets. Hayes (2020) described a t-test as an inferential statistic used to determine if there is a significant difference between the means of two groups, which may be related in certain features. It specifically helps with hypothesis testing in statistics. Since male and female genders were identified in 99.99% of responses to the survey, T-Tests were used to find any significant differences between gender and both the Physical Activity and Leisure Motivation Scale and the Constraints Scale. Additionally, Glen (n.d.) explains that an ANOVA test is a way to find out if survey or experiment results are significant. The test helps to determine if the null hypothesis should be rejected or if the alternate hypothesis should be accepted. Seeing as class has more than two variables, an ANOVA test will need to be used to compare class with the Physical Activity and Leisure Motivation Scale and the Constraints Scale. Ultimately, receiving the factor analysis data allows the researcher to present the data in a more meaningful way, which will allow simpler interpretation of the data. Based on previous experience in SUNY Cortland’s Intramural Sports program, the researcher speculates to a few hypotheses.

Hypothesis 1: Students choose alternate forms of exercise that enable them to exercise on their own time.

Data has shown a decrease in participation since the Student Life Center opened in February of 2015, meaning there may be a correlation between the buildings opening and a decrease in intramural participation. Before the Student Life Center opened, intramural sports were one of the only ways students could get exercise. Once the building opened, students had an alternative

option to exercise. The big difference was student's ability to go to the Student Life Center whenever they wanted, instead of needing to adhere to intramural sports schedules.

Hypothesis 2: Intramural sports forfeit fees are too high, and students do not want to take the risk of paying them.

If a team forfeits an intramural sports game, their fees are equivalent to the wages of the staff, since they still get paid. For example, a basketball game has 3 officials (\$12.30/hour), 1 scorekeeper (\$11.80/hour) and 1 supervisor (\$12.80/hour), so the team is charged \$55 for a forfeit. The high cost of a forfeit may turn away students from participating, as they are not willing to risk forfeiting a game and paying that much money.

Hypothesis 3: SUNY Cortland students spend their time elsewhere and do not prioritize participation in intramural sports

College students participate in many activities, whether it is student government activities, varsity or club sports, sorority and fraternities or academic clubs. They also work out, have jobs and have homework. Intramural sports simply may not have the priority that those other activities do, and students make the choice to spend their time elsewhere.

Utilizing descriptive research allowed the researcher to recognize which of the constraints are more prevalent on SUNY Cortland's campus. Each category has a ranking associated with it, allowing descriptive research to determine which categories are rated higher than others. Compiling all of the collected data determined the mean scores for each category. The mean scores are used to determine which categories are stronger constraints than others. While all constraints are important, solving the more prevalent ones will open participation back up the most.

Researcher Positionality

The researcher's experience in SUNY Cortland's Intramural Sport program could result in potential bias. As a former official, supervisor, participant and current graduate assistant for the program, he has seen the highs and lows of the program. He utilized that previous experience to determine hypotheses for the problem, which could skew the data collected. Since he created the survey to distribute to SUNY Cortland's population, the questions and answer choices could be based on his perspectives and miss some options that he was not aware of.

Results

Socio-Demographic

The survey generated 531 total responses. Sixty-six surveys were submitted that did not record any information after voluntarily agreeing to participate and agreeing to all the information on the first page of the survey. 274 responses were labeled as incomplete, as they left at least one section of the survey blank. 191 surveys were fully completed.

Table 1

Participant Gender

Gender	N	Percentage
Female	126	66.32%
Male	63	33.16%
Gender variant/non-conforming	1	0.01%
Total	191	100%

Out of the 190 survey participants who identified their gender, 126 (66.32%) identified themselves as female, while 63 (33.16%) identified as male and 1 (0.01%) individual identified as gender variant/non-conforming. “SUNY College – Cortland” (n.d.) describes SUNY Cortland’s gender distribution for undergraduate students as 44% male and 56% female. For the purpose of this study, the gender variant/non-conforming individual was removed from the gender count when determining correlation between gender and both the Physical Activity and Leisure Motivation Scale and the Constraints Scale. While this was not done to intentionally exclude the gender variant/non-conforming individual, there is not enough data for gender

variant/non-conforming that could reasonably explain any potential correlations between either scale and gender variant/non-conforming individuals at SUNY Cortland.

Table 2

Class Status

Class	N	Percentage
Freshman/First-Year	14	7.33%
Sophomore	29	15.18%
Junior	53	27.75%
Senior	70	36.65%
Graduate Student	25	13.09%
Total	191	100%

The purpose of this study was to analyze intramural sport participation at SUNY Cortland and to understand that, it is important to understand the number of survey respondents that did not participate in intramural sports. 129 students (39.33%) did not participate in intramural sports in any capacity. Meanwhile 73 students (22.26%) have participated in intramural sports during the 2018-2019 academic year. 58 individuals (17.68%) participated in club sports, while 56 (17.07%) were varsity athletes and 94 (28.66%) participated in non-organized physical activities.

Table 3

Activity participation

Activity	N	Percentage
Intramural Sports	73	22.26%

Club Sports	58	17.68%
Varsity Athletics	56	17.07%
Non-organized physical activities	94	28.66%
None of the above	129	39.33%

Race and ethnicity were also surveyed as a part of the demographics section of the survey. Due to the overwhelming number of individuals that identified themselves as white (n=167, 89.30%) it was decided not to find a correlation between race and factors of the two scales. Asian (n=3, 1.60%), Black or African American (n=6, 3.21%), Hispanic/Latino (n=6, 3.21%) and multiracial (n=1, 0.53%), were all identified through the results, but none of the groups were large enough to find significant correlations.

Students were surveyed on their student status. 178 respondents were identified as full-time students (93.19%), which is defined by a student who takes 12 or more credits in the semester. Anything less than 12 credits is considered a part-time student, which only applied to 13 respondents (6.81%). Due to the high volume of individuals who were full-time students, the data would not have shown any identifiable correlations between student status and any factors of the survey scales.

The survey participants identified their current living situations and how frequently they went to campus. Out of the 191 students who identified their living situation, 88 (46.07%) live off campus in the Cortland area while 47 (24.61%) are off campus but are not near Cortland. While 135 survey participants did not live on campus, 50 (26.18%) did live on campus and 6 (3.14%) live in the College Suites. Meanwhile, 41 students (21.58%) claimed they rarely or never come to campus while 8 students (4.21%) identified they only come to campus one time

per week. 41 survey respondents (21.58%) came to campus two to three times per week. Additionally, 29 students (15.26%) come to campus during the week only and 71 students (37.37%) come to campus daily. While the data distribution could provide correlations that give useful information, this data was collected during the COVID-19 pandemic, which has caused students to live at home when they would normally be on campus or off campus in the Cortland area. Additionally, those students normally coming to campus daily are not because they are learning remotely. The results of those correlations would not give useful information since they are not indicative of how it relates during a traditional year.

Marketing

Survey participants were asked to identify the means of marketing they would most prefer to find out about intramural sport events through. One hundred and eighty-six students responded to the marketing questions on the survey. Students had the ability to select multiple marketing methods, as they can find out about intramural sport events multiple ways. Campus television displays are controlled through the Campus Activities Department on SUNY Cortland's campus. Their televisions are located in numerous locations across the entire campus, including the building that is home to the SUNY Cortland Recreational Sports Department. Additionally, IM Leagues is an online program utilized by the Intramural Sport Department for event registration. Students must create an account in order to register for events or see any upcoming events, thus not making it accessible to everyone but not creating a barrier for anyone to join.

Table 4*Preferred Marketing Tactics*

Marketing Tactic	N	Percentage
Campus wide-email	146	78.49%
Social media posts	85	45.70%
Campus television displays	25	13.44%
Flyers/posters	51	27.42%
Word of mouth	60	32.26%
Recreational Sports Website	35	18.82%
IM Leagues	25	13.44%

The highest rated marketing effort was campus wide-emails, with 146 individuals (78.49%) identifying them as a preferred method of learning about intramural sport activities. Social media posts are the second highest marketing tool, as it was identified by 85 students (45.70%) as a recommended mean of marketing. Word of mouth is also a preferred marketing tool, with 60 students (32.26%) claiming they want to learn about intramural sport events via word of mouth. Flyers/posters is identified on 51 (27.42%) responses from students. The Recreational Sports Website (n=35, 18.82%), Campus Television Displays (n=25, 13.44%) and IM Leagues (n=25, 13.44%) are all identified from the survey, but none of them are identified on more than 20% of surveys.

Physical Activity and Leisure Motivation Scale

The Physical Activity and Leisure Motivation Scale (PALMS) was utilized to understand SUNY Cortland student's motivation for participating in leisure activities, which are not specific

to intramural sports. The factors of the data set were predetermined, as the scale is an authenticated scale, but it is still valuable to understand how the factors relate to each statement in this context. The first factor is considered competency/mastery, as it deals with statements are related to improving one's abilities and to be successful in those activities. The second factor is labeled intellectual because it relates to learning, exploring and discovering. The third factor is called social, due to its involvement with motivation in relation others. The fourth factor is determined to be stimulus/avoidance, as it relates to relaxing, slowing down and resting. As shown in Table Four, all items loaded to their proper factors.

Table 5

Factor Analysis of the Physical Activity and Leisure Motivation Scale

	Competency/ Mastery	Intellectual	Social	Stimulus/ Avoidance
To develop physical skills and abilities	0.9	0.029	0.215	-0.054
To keep in shape physically	0.878	0	0.144	-0.121
To develop physical fitness	0.873	0.01	0.147	-0.059
To be active	0.855	0.001	0.195	-0.088
To use my physical abilities	0.85	0.092	0.246	-0.09
To improve my skill and ability in my activities	0.75	0.175	0.258	-0.004
To challenge my abilities	0.714	0.253	0.152	0.039
To be good in my activities	0.71	0.075	0.276	0.024
To explore new ideas	0.087	0.88	0.104	0.082
To learn things around me	0.091	0.792	0.13	0.101
To satisfy my curiosity	0.063	0.787	0.208	0.076
To use my imagination	-0.033	0.776	0.175	0.057

To be creative	-0.065	0.767	0.209	0.107
To explore new ideas	0.087	0.88	0.104	0.082
To learn things around me	0.091	0.792	0.13	0.101
To satisfy my curiosity	0.063	0.787	0.208	0.076
To use my imagination	-0.033	0.776	0.175	0.057
To be creative	-0.065	0.767	0.209	0.107
To expand my knowledge	0.226	0.76	0.027	0.208
To discover new things	0.125	0.751	0.098	0.154
To learn about myself	0.132	0.735	0.189	0.067
To develop close friendships	0.13	0.094	0.872	0.004
To build friendships with others	0.139	0.16	0.827	-0.027
To interact with others	0.22	0.095	0.814	0.057
To gain a feeling of belonging	0.193	0.178	0.782	-0.055
To meet new and different people	0.273	0.171	0.781	0.044
To be socially competent and skillful	0.402	0.193	0.739	0.031
To gain others respect	0.224	0.224	0.616	-0.095
To reveal my thoughts, feelings or physical skills to others	0.37	0.26	0.532	0.043
To relax mentally	0.017	0.032	-0.048	0.834
To avoid the hustle and bustle of daily activities	-0.04	0.037	0.026	0.828
To rest	-0.095	0.121	0.01	0.803
Because I sometimes like to be alone	-0.09	0.08	-0.229	0.75
To slow down	-0.057	0.205	-0.003	0.727
To relieve stress and tension	0.076	0.063	0.034	0.709
To unstrucutre my time	-0.118	0.211	0.179	0.681

A T Test was run to find the means, standard deviations, and significance of the Physical Activities and Leisure Motivation Scale and gender of survey participants. Women have a higher mean score than males in five of the eight intellectual factors. Women also have a higher mean score than men in six out of the eight social factors, with “to gain others respect” having an identical mean between the two genders. The competency/mastery factors were the opposite, as men had a higher mean score in every item in that factor. The final factor is stimulus/avoidance factors, in which women scored higher than men in every item. In total, women scored higher in 18 items while men scored higher in 12 items with one item having the same score across both genders.

The highest-rated items for men was “To keep in shape physical” ($M=4.55$, $SD=0.78$), “To be active” ($M=4.45$, $SD=0.80$) and “To develop physical fitness” ($M=4.37$, $SD=0.98$). The highest-rated items for women was “To relieve stress and tension” ($M=4.42$, $SD=0.84$), “To interact with others” ($M=4.20$, $SD=1.03$), and “To relax mentally” ($M=4.20$, $SD=0.98$).

There are seven significant differences between men and women found in the T Test. One difference is found in the intellectual factor, one is found in the social factor and five are included in the competency mastery factor. No significant differences are present in the stimulus/avoidance factors.

Table 6

Means, Standard Deviations, and Significance of the Physical Activity and Motivation Scale by Gender

	Women		Men		t	df	p
	M	SD	M	SD			
To learn things around me	3.38	1.23	3.17	1.37	1.044	187	0.195

To satisfy my curiosity	3.45	1.20	3.51	1.35	-0.309	186	0.138
To explore new ideas	3.61	1.17	3.63	1.23	-0.146	186	0.451
To learn about myself	3.54	1.18	3.41	1.35	0.662	187	0.141
To expand my knowledge	3.77	1.01	3.82	1.19	-0.357	185	0.341
To discover new things	3.97	0.97	3.79	1.12	1.099	186	0.021*
To be creative	3.67	1.13	3.40	1.29	1.367	185	0.723
To use my imagination	3.35	1.33	3.11	1.35	1.157	187	0.862
To build friendships with others	4.02	1.14	3.94	1.08	0.505	187	0.469
To interact with others	4.20	1.03	4.02	0.95	1.177	185	0.213
To develop close friendships	4.02	1.11	3.84	1.05	1.084	186	0.784
To meet new and different people	3.94	1.16	3.63	1.27	1.632	187	0.043*
To reveal my thoughts, feelings, or physical skills to others	3.21	1.37	3.38	1.28	-0.845	187	0.471
To be socially competent and skillful	3.74	1.23	3.65	1.12	0.472	187	0.523
To gain a feeling of belonging	3.67	1.31	3.51	1.26	0.797	187	0.894
To gain others respect	3.27	1.43	3.27	1.30	-0.020	186	0.117
To challenge my abilities	3.76	1.18	4.13	0.86	-2.177	186	0.002**
To be good in my activities	3.87	1.03	4.27	0.87	-2.637	185	0.331
To improve my skill and my ability in my activities	4.08	0.99	4.32	0.84	-1.655	185	0.872
To be active	4.17	1.12	4.45	0.80	-1.733	186	0.013*
To develop physical skills and abilities	3.88	1.21	4.31	0.86	-2.429	185	0.021*
To keep in shape physically	4.11	1.13	4.55	0.78	-2.728	184	0.004**
To use my physical abilities	3.95	1.14	4.31	0.88	-2.143	186	0.173

To develop physical fitness	3.94	1.28	4.37	0.98	-2.351	186	0.021*
To slow down	3.10	1.35	2.63	1.42	2.211	187	0.37
Because I sometimes like to be alone	3.53	1.40	3.37	1.34	0.785	187	0.532
To relax mentally	4.20	0.98	3.86	1.13	2.152	186	0.345
To avoid the hustle and bustle of daily activities	3.78	1.30	3.52	1.27	1.265	186	0.504
To rest	3.57	1.38	3.33	1.41	1.108	187	0.740
To relieve stress and tension	4.42	0.84	4.21	1.03	1.554	186	0.191
To unstrucutre my time	3.23	1.36	2.84	1.43	1.833	185	0.551

NOTE: * $p < .05$, ** $p < .005$

An Anova test was run to find the means, standard deviations and significant differences between the Physical Activity and Leisure Motivation Scale and Class. Freshman/first year students have the highest mean in three of the intellectual items, although one of those items registered the same mean amongst juniors. Seniors have two of the highest mean scores in different items, as did juniors, although one of those items contained the same mean score as freshman/first years. Sophomores and graduate students registered the highest mean in one intellectual item each. Freshman/first year students have the highest mean score in six out of the eight items for social factors. The other two items were registered highest with sophomores. Freshman/first year students also had the highest mean score in four of the competency/mastery factors. Three of the items were ranked highest by juniors, although one of those factors had the same mean score as freshman/first year students. Sophomores consisted of two of the highest scored items while seniors and graduate students did not have any of the highest means. The final factor, stimulus/avoidance, sees five items rated highest by graduate students. The other two items have the highest mean score by freshman/first year students.

The highest-rated items for freshman/first year students are “To keep in shape physically” ($M=4.38$, $SD=0.77$) and “To be active” ($M=4.36$, $SD=0.84$). The highest-rated items for sophomores are “To be active” ($M=4.38$, $SD=0.98$) and “To relieve stress and tension” ($M=4.38$, $SD=0.98$). The highest-rated items for juniors are “To relieve stress and tension” ($M=4.40$, $SD=0.75$) and “To keep in shape physically” ($M=4.33$, $SD=0.79$). The highest-rated items for seniors are “To relieve stress and tension” ($M=4.29$, $SD=1.04$) and “To be active” ($M=4.28$, $SD=1.07$). The highest-rated items for graduate students are “To relieve stress and tension” ($M=4.44$, $SD=0.82$) and “To relax mentally” ($M=4.36$, $SD=0.91$).

There is one significant difference between freshman/first years, sophomores, juniors, seniors and graduate students. The difference is “To rest”, which is a stimulus/avoidance factor.

Table 7

Means, Standard Deviations, and Significance of PALMS by Class

	Freshman/ First Year	Sophomore	Junior	Senior	Graduate Student	f	df	p
To learn things around me	3.29 (1.33)	3.17 (1.34)	3.43 (1.18)	3.41 (1.36)	2.92 (1.26)	0.888	190	0.472
To satisfy my curiosity	3.43 (1.22)	3.55 (1.18)	3.45 (1.17)	3.49 (1.35)	3.28 (1.31)	0.180	189	0.949
To explore new ideas	3.64 (1.22)	3.52 (1.24)	3.55 (1.19)	3.67 (1.20)	3.64 (1.19)	0.124	189	0.974
To learn about myself	3.36 (1.39)	3.51 (1.15)	3.40 (1.32)	3.53 (1.22)	3.56 (1.26)	0.150	190	0.963
To expand my knowledge	4.08 (0.79)	3.62 (1.11)	3.75 (1.09)	3.84 (1.04)	3.76 (1.16)	0.467	188	0.760
To discover new things	4.00 (1.18)	3.86 (0.97)	4.00 (0.94)	3.94 (1.06)	3.60 (1.08)	0.733	189	0.570
To be creative	3.79 (1.18)	3.41 (1.38)	3.57 (1.20)	3.75 (1.26)	3.32 (1.35)	0.780	188	0.540
To use my imagination	3.07 (1.44)	3.03 (1.30)	3.28 (1.36)	3.47 (1.30)	3.12 (1.36)	0.777	190	0.541
To build friendships with others	4.29 (0.82)	4.28 (1.10)	3.81 (1.24)	4.00 (1.04)	3.98 (1.12)	1.314	190	0.266
To interact with others	4.29 (0.99)	4.24 (0.91)	4.02 (1.16)	4.24 (0.86)	3.84 (1.14)	1.070	188	0.373

To develop close friendships	4.14 (0.95)	4.28 (1.03)	3.92 (1.21)	3.91 (0.99)	3.64 (1.19)	1.298	189	0.272
To meet new and different people	4.07 (1.14)	4.14 (1.03)	3.83 (1.25)	3.80 (1.20)	3.28 (1.37)	1.901	190	0.289
To reveal my thoughts, feelings, or physical skills to others	4.00 (1.30)	3.28 (1.51)	3.25 (1.16)	3.14 (1.35)	3.16 (1.43)	1.255	190	0.289
To be socially competent and skillful	4.00 (1.30)	3.93 (1.22)	3.75 (1.16)	3.63 (1.21)	3.24 (1.23)	1.474	190	0.212
To gain a feeling of belonging	3.93 (1.21)	3.83 (1.26)	3.60 (1.32)	3.59 (1.17)	3.24 (1.59)	0.947	190	0.438
To gain others respect	3.79 (0.97)	3.59 (1.43)	3.28 (1.38)	3.11 (1.37)	2.92 (1.53)	1.488	189	0.207
To challenge my abilities	3.71 (1.20)	3.72 (1.10)	3.98 (1.03)	3.91 (1.11)	3.84 (1.25)	0.353	189	0.841
To be good in my activities	3.79 (0.89)	4.07 (0.92)	4.08 (0.86)	3.96 (1.10)	4.04 (1.00)	0.310	188	0.871
To improve my skill and my ability in my activities	3.79 (1.12)	4.24 (0.87)	4.23 (0.78)	4.13 (1.03)	4.20 (1.04)	0.694	188	0.597
To be active	4.36 (0.84)	4.38 (0.98)	4.23 (0.95)	4.28 (1.07)	4.08 (1.29)	0.329	189	0.858
To develop physical skills and abilities	4.23 (1.17)	4.07 (1.13)	4.09 (0.97)	3.91 (1.15)	4.00 (1.35)	0.342	188	0.850
To keep in shape physically	4.38 (0.77)	4.24 (1.06)	4.33 (0.79)	4.20 (1.16)	4.16 (1.31)	0.204	187	0.936
To use my physical abilities	4.07 (1.14)	4.17 (0.97)	4.17 (0.94)	3.94 (1.17)	3.96 (1.31)	0.457	189	0.767
To develop physical fitness	4.21 (1.19)	4.21 (1.08)	4.25 (0.92)	3.88 (1.36)	4.00 (1.41)	0.858	189	0.491
To slow down	2.86 (1.35)	2.72 (1.49)	2.83 (1.33)	3.01 (1.41)	3.36 (1.38)	0.886	190	0.474
Because I sometimes like to be alone	3.43 (1.40)	3.41 (1.32)	3.55 (1.38)	3.41 (1.38)	3.64 (1.44)	0.177	190	0.950

To relax mentally	3.93 (1.00)	4.17 (1.00)	3.87 (1.12)	4.16 (1.03)	4.36 (0.91)	1.242	189	0.294
To avoid the hustle and bustle of daily activities	3.93 (1.14)	3.45 (1.30)	3.38 (1.43)	3.91 (1.14)	3.88 (1.36)	1.798	189	0.131
To rest	3.93 (1.07)	3.72 (1.36)	2.94 (1.51)	3.66 (1.34)	3.76 (1.20)	3.227	190	0.014*
To relieve stress and tension	4.29 (0.83)	4.38 (0.98)	4.40 (0.75)	4.29 (1.04)	4.44 (0.82)	0.217	189	0.929
To unstrucutre my time	3.14 (1.41)	3.04 (1.37)	2.79 (1.49)	3.21 (1.24)	3.48 (1.56)	1.259	188	0.288

NOTE: * $p < .05$

Constraints

A separate research question asked if students faced constraints to intramural sport participation and, if they do, which constraints to they faced the most. Three separate factors were predetermined by Shifman, Moss, D'Andrade, Eichel, & Forrester (2011). The first of those factors is intrapersonal constraints, as those constraints consist of physiological attributes that interact with leisure preferences, such as potential fears and individuals that are self-conscious. The second factor is interpersonal constraints, which are viewed as the result of social relationships desired for leisure participation. As you can see on Table Seven, the items loaded “fear of violence”, “fear of injury” and “available activities are inappropriate for my gender” loaded under the interpersonal factor. However, these items are considered intrapersonal factors. The third factor is structural constraints, which are concrete factors that result from external conditions. Facilities, finances and lack of time are all considered structural constraints.

Table 8

Factor Analysis of the Constraints Scale

	Interpersonal	Intrapersonal	Structural
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Participation makes me self-conscious	0.841	0.181	0.278
Fear of failure	0.812	0.217	0.097
Feel uncomfortable participating	0.811	0.176	0.281
I am too shy to participate	0.808	0.221	0.169
I lack the skill to participate	0.767	0.145	0.028
Don't have the will to participate	0.674	0.246	0.162
Activities are too competitive	0.669	0.375	0.137
I don't enjoy Intramural Sports	0.615	0.303	0.154
Fear of violence	0.264	0.824	0.054
Fear of injury	0.175	0.798	0.132
Available activities are inappropriate for my gender	0.193	0.74	0.237
Physically unable to participate	0.195	0.565	0.003
Social cultural norms prevent me from participating	0.34	0.468	0.334
Lack of transportation	0.127	0.391	0.252
I do not know what is available	0.187	0.008	0.604
Parking availability/convenience	0.023	0.195	0.593
Facilities are too crowded	0.046	0.412	0.586
Lack of money	0.14	0.279	0.579
Lack of time due to work, school or family	0.162	0.064	0.578
Lack of time because of other leisure activities	-0.017	0.07	0.552
No one to participate with	0.366	-0.063	0.473
Friends don't like Intramural Sports	0.418	0.015	0.458
Inappropriate social environment	0.255	0.321	0.429
Inability to manage personal time	0.272	0.159	0.422

A second T Test was run find the means, standard deviations, and significance of the Constraints Scale and gender of survey participants. Women register a higher mean score in all constraints than men, including interpersonal, intrapersonal and structural constraints.

The highest rated items for women are “Lack of time due to work, family or school” ($M=3.99$, $SD=1.10$), “Lack of time because of other leisure activities” ($M=3.02$, $SD=1.38$) and “No one to participate with” ($M=3.01$, $SD=1.53$). The highest rated items for men are “Lack of time due to work, family or school” ($M=3.39$, $SD=1.26$), “Lack of time because of other leisure activities” ($M=2.80$, $SD=1.33$) and “No one to participate with” ($M=2.77$, $SD=1.37$).

Fifteen significant differences were found when comparing gender with constraints. Twelve of those significant differences are considered intrapersonal constraints. The other three significant differences are found under structural constraints. There are no significant differences in interpersonal constraints.

Table 9

Means, Standard Deviations, and Significance of Constraints by Gender

	Women		Men		t	df	p
	M	SD	M	SD			
No one to participate with	3.01	1.53	2.77	1.37	1.023	181	0.108
Inappropriate social environment	1.94	1.16	1.59	0.99	2.032	181	0.195
Friends don't like Intramural Sports	2.78	1.50	2.28	1.32	2.214	181	0.249
Don't have the will to participate	2.56	1.51	1.90	1.04	3.053	181	<0.001***
Feel uncomfortable participating	2.69	1.50	1.95	1.19	3.356	182	0.001***
I lack the skill to participate	2.47	1.49	1.97	1.60	2.077	180	0.026*
Participation makes me self-conscious	2.50	1.54	1.72	1.08	3.520	179	<0.001***

Activities are too competitive	2.36	1.47	1.57	0.93	3.816	181	< 0.001 ***
Activities are dominated by a specific gender	2.40	1.45	1.40	0.72	5.042	180	< 0.001 ***
I am too shy to participate	2.48	1.49	1.69	1.01	3.708	181	< 0.001 ***
Fear of failure	2.30	1.50	1.62	0.94	3.236	180	< 0.001 ***
I don't enjoy Intramural Sports	1.90	1.29	1.57	1.16	1.660	179	0.065
Social cultural norms prevent me from participating	1.75	1.12	1.36	0.86	2.366	181	< 0.001 ***
Available activities are inappropriate for my gender	1.53	0.99	1.17	0.53	2.684	180	< 0.001 ***
Fear of violence	1.45	0.93	1.20	0.57	1.959	181	< 0.001 ***
Fear of injury	1.88	1.24	1.48	0.87	2.310	181	< 0.001 ***
Lack of time due to work, school or family	3.99	1.10	3.39	1.26	3.303	181	0.122
I do not know what is available	2.63	1.40	2.36	1.35	1.228	180	0.519
Lack of time because of other leisure activities	3.02	1.38	2.80	1.33	0.995	180	0.79
Parking availability/convenience	1.92	1.31	1.80	1.21	0.570	180	0.154
Lack of money	2.18	1.29	1.92	1.22	1.327	180	0.312
Facilities are too crowded	1.78	1.18	1.71	1.07	0.346	177	0.303
Inability to manage personal time	2.33	1.36	1.97	1.18	1.773	180	0.017 **
Lack of transportation	1.59	1.11	1.31	0.72	1.761	180	0.001 ***
Physically unable to participate	1.39	0.86	1.16	0.52	1.891	179	< 0.001 ***

NOTE: * $p < .05$, ** $p < .005$, *** $p < .001$ level

A second Anova test was run to find the means, standard deviations and significance of constraints related to class. Graduate students have the highest mean score for two of the three

interpersonal constraints, with sophomores consisting of the other highest mean score. There are thirteen items that make up the intrapersonal constraints section. Freshman/first year students have the highest mean score for four of the intrapersonal constraints, while graduate students are responsible for six of the highest scores. Sophomores have two of the highest scores and juniors have one. Seniors did not have any of the highest mean scores for intrapersonal constraints. The final factor is structural constraints, and it contains nine items. Graduate students have the highest mean for four of those factors, although one of them have the same mean score as seniors. Accounting for the one mean score that is the same as graduate students, seniors had two items with the highest mean. The other four items have freshman/first year students with the highest mean. Sophomores and juniors did not have any of the highest mean scores for structural constraints.

The highest rated items for freshman/first year students are “I do not know what is available” ($M=3.85$, $SD=0.80$) and “Lack of time due to work, family or school” ($M=3.62$, $SD=1.45$). The highest rated items for sophomores are “Lack of time due to work, family or school” ($M=3.59$, $SD=1.21$) and “Lack of time because of other leisure activities”. ($M=3.07$, $SD=1.33$). The highest rated items for juniors are “Lack of time due to work, family or school” ($M=3.88$, $SD=1.13$) and “Lack of time because of other leisure activities” ($M=2.80$, $SD=1.46$). The highest rated items for seniors are “Lack of time due to work, family or school” ($M=3.69$, $SD=1.28$), “No one to participate with” ($M=2.91$, $SD=1.53$) and “Lack of time because of other leisure activities” ($M=2.91$, $SD=1.32$). The highest rated items for graduate students are “Lack of time because of work, family or school” ($M=4.17$, $SD=0.91$), “Lack of time because of other leisure activities” ($M=3.38$, $SD=1.43$) and “No one to participate with” ($M=3.29$, $SD=1.57$).

There is one significant difference between freshman/first years, sophomores, juniors, seniors and graduate students in relation to constraints. The difference is not knowing what is available, which is a structural constraint.

Table 10

Means, Standard Deviation and Significance of Constraints by Class

	Freshman/ First-Year	Sophomore	Junior	Senior	Graduate Student	f	df	p
No one to participate with	2.77 (1.30)	2.86 (1.50)	2.79 (1.45)	2.91 (1.53)	3.29 (1.57)	0.512	184	0.727
Inappropriate social environment	1.77 (1.09)	1.72 (0.99)	1.77 (0.98)	1.78 (1.14)	2.33 (1.52)	1.334	184	0.259
Friends don't like Intramural Sports	2.54 (1.13)	2.72 (1.39)	2.52 (1.50)	2.61 (1.51)	2.58 (1.56)	0.098	184	0.983
Don't have the will to participate	1.77 (1.17)	2.41 (1.43)	2.33 (1.49)	2.35 (1.32)	2.50 (1.47)	0.641	184	0.634
Feel uncomfortable participating	2.15 (1.34)	2.83 (1.41)	2.46 (1.49)	2.26 (1.35)	2.63 (1.66)	1.006	185	0.406
I lack the skill to participate	2.15 (1.46)	2.69 (2.19)	2.23 (1.42)	2.21 (1.29)	2.50 (1.64)	0.672	183	0.612
Participation makes me self-conscious	1.93 (1.26)	2.41 (1.50)	2.26 (1.45)	2.09 (1.37)	2.58 (1.67)	0.781	182	0.539
Activities are too competitive	2.38 (1.26)	1.72 (1.10)	2.18 (1.40)	2.10 (1.43)	2.29 (1.46)	0.847	184	0.497
Activities are dominated by a specific gender	2.08 (1.19)	1.83 (1.28)	2.12 (1.47)	2.09 (1.35)	2.25 (1.29)	0.358	183	0.839
I am too shy to participate	2.46 (1.51)	2.21 (1.37)	2.41 (1.51)	1.99 (1.22)	2.29 (1.60)	0.829	184	0.508
Fear of failure	2.23 (1.36)	1.97 (1.38)	2.22 (1.50)	1.92 (1.25)	2.25 (1.51)	0.515	183	0.725
I don't enjoy Intramural Sports	1.62 (1.26)	1.72 (1.28)	1.72 (1.25)	1.78 (1.15)	2.38 (1.64)	1.354	182	0.252
Social cultural norms prevent me from participating	1.46 (0.97)	1.62 (0.94)	1.73 (1.13)	1.59 (1.08)	1.63 (1.10)	0.208	184	0.934
Available activities are	1.69 (1.25)	1.34 (0.61)	1.38 (0.99)	1.44 (0.87)	1.29 (0.69)	0.517	183	0.723

inappropriate for my gender								
Fear of violence	1.69 (1.25)	1.38 (0.68)	1.43 (1.01)	1.25 (0.66)	1.33 (0.76)	0.922	184	0.452
Fear of injury	1.92 (1.32)	1.55 (0.91)	1.88 (1.26)	1.60 (1.04)	1.96 (1.30)	0.943	184	0.440
Lack of time due to work, school or family	3.62 (1.45)	3.59 (1.21)	3.88 (1.13)	3.69 (1.28)	4.17 (0.91)	1.073	184	0.371
I do not know what is available	3.85 (0.80)	2.41 (1.43)	2.43 (1.35)	2.49 (1.36)	2.46 (1.53)	3.170	183	0.015*
Lack of time because of other leisure activities	2.61 (1.26)	3.07 (1.33)	2.80 (1.46)	2.91 (1.32)	3.38 (1.43)	0.978	183	0.421
Parking availability/ convenience	2.00 (1.08)	1.66 (1.17)	1.73 (1.17)	2.04 (1.44)	2.04 (1.33)	0.793	183	0.531
Lack of money	2.31 (1.03)	1.90 (1.23)	1.98 (1.30)	2.19 (1.33)	2.25 (1.33)	0.545	193	0.703
Facilities are too crowded	1.85 (1.07)	1.41 (0.91)	1.82 (1.26)	1.80 (1.15)	1.88 (1.19)	0.794	180	0.530
Inability to manage personal time	2.62 (1.50)	2.10 (1.29)	2.10 (1.19)	2.25 (1.33)	2.25 (1.51)	0.467	183	0.760
Lack of transportation	1.77 (1.09)	1.52 (1.06)	1.51 (1.05)	1.39 (0.87)	1.54 (1.14)	0.451	183	0.772
Physically unable to participate	1.31 (0.75)	1.24 (0.51)	1.31 (0.84)	1.35 (0.79)	1.33 (0.87)	0.099	182	0.983

NOTE: *p < .05

Discussion

The purpose of this study is to understand the factors that impact intramural sport participation decisions of students at SUNY Cortland. The survey and its subsequent results helped to give insight into intramural sport participation, especially when comparing them to the tactics that SUNY Cortland's Intramural Sport Department currently deploys. The first factor that will be discussed is the marketing efforts of the Intramural Sports Department.

SUNY Cortland students identified campus wide-emails as the most preferred method of marketing. Social media posts and word of mouth advertising followed that. Ciuffo, Johnson, and Tracy (2014) identified mass digital communication, such as a department's website and emails as highly effective means of marketing. The results of this study found emails to be the highest form of marketing, with 78.49% of respondents identifying it as a preferred method. SUNY Cortland's Intramural Sports department utilizes campus wide emails for marketing, as well as personalized emails. Ciuffo, Johnson, and Tracy (2014) suggest that personalized emails can decrease skepticism or avoidance of marketing material. Response rates for emails sent by the Intramural Sports Department remain low, even with students identifying a preference for communication through email. Email fatigue is a noted problem, both in work environments and academic environments (Stratovich, 2019). If students prefer to learn about offerings through campus wide-emails but are being sent a high frequency of emails, the emails sent from the Intramural Sports Department may be getting lost in the shuffle.

Similarly, social media was the second highest marketing method, but under 50% of survey respondents preferred to learn about intramural sports events through that method. Social media has become one of the most effective means of marketing in recent years. One of the biggest reasons social media marketing has boomed in the past is that digital consumers spend

over 2.5 hours per day on social platforms, according to Selders (2019). Ciuffo, Johnson, and Tracy (2014) also found social media to be a lower ranked mode of marketing than previously hypothesized. This may be caused by social media fatigue. Agarwal (2018) defines social media fatigue as social media users' tendency to pull back from social media when they become overwhelmed with too many social media sites, too many friends and followers and too much time spent online maintaining these connections. Ciuffo, Johnson, and Tracy (2014) note that social media fatigue results in users visiting social media websites less frequently. While it is still worthwhile for organizations such as SUNY Cortland's Intramural Sports Department to conduct social media marketing, as almost half of the survey respondents identified it as a preferred method of marketing, it may not be worth it to invest as much time and effort into it.

This studies results vary from Ciuffo, Johnson, and Tracy (2014) in that the Recreational Sports website was not very highly rated. In their study, the Recreation website was the fifth most preferred marketing technique out of ten techniques for freshman, sophomores and seniors. This study found the Recreational Sports website to be the third lowest marketing technique, as IM Leagues and Campus Television displays registered the lowest mean scores. The lack of interest from SUNY Cortland students to learn about intramural sport events through the Recreational Sports website could be indicative of the student body or of the website itself. The potential lack of a quality, interactive and informative could turn students away from using it as a consistent marketing tool. Alternatively, SUNY Cortland's student body may want marketing tactics that come to them, such as a campus wide-email or social media posts, rather than having to take it upon themselves to find the information. This insinuates college students may not want to put in the effort to learn of intramural offerings by visiting IM Leagues or visiting the

Recreational Sports website. Instead, they would rather learn of intramural sport offerings with little to no effort.

Additionally, there is a significant correlation between freshman/first year students and not knowing what activities are being offered. No other class had a mean over 2.50, while freshman/first-year students had a mean of 3.85 when responding to “I do not know what is available”. There is not much current research on this topic, but it is an issue that the current intramural sports staff at SUNY Cortland is aware of. Between the 2019 spring semester and 2019 fall semester, freshman participation in intramural sports was lower than any other class. Of the 1,936 unique participants during that time frame, 399 (20.61%) were freshman/first years. That compares to 543 (28.05%) sophomores, 758 juniors (39.15%) and 556 (28.72%) seniors. 30 (1.55%) graduate students and 19 (0.60%) faculty/staff also participated during that time, but those individuals tend to not participate in high numbers (see Appendix A). This is similar to typical participation numbers for first-year students. Based on participation data drawn from IM Leagues, first-year students have the lowest participation numbers of any students. This shows that low-participation from first-year students is not related to the COVID-19 pandemic. A potential reason for the low awareness of intramural offerings for freshman/first-year students is their attempt to get comfortable with a collegiate setting before participating in different activities. This finding echo’s what Young, Ross, and Barcelona (2007) found in their study. During their 2007 study, they found a lack of knowledge of the recreational sport programs and activities available by the students was the second most highly perceived constraint. Recreational professionals can remedy this issue by increasing presence to first-year students. This is achievable through an effort to attend more COR 101 classes, which are required classes for all

first-year students at SUNY Cortland. Additionally, campus recreation programs can make an effort to be more present during summer orientation for incoming students.

Constraints

A piece of the research question was understanding the constraints that SUNY Cortland students face to intramural participation. The highest loaded constraint was participation making individuals feel self-conscious, with a fear of violence the second highest. Interpersonal factors did not load well, as an inability to manage personal time, an inappropriate social environment and a lack of friends who like intramural sports did not load into interpersonal factors. In fact, they did not load into any factor in the factor analysis. Due to the credibility of the scale, they are not removed from the analysis, but they do not factor into the data set. Ultimately, structural constraints received low factor scores, with none of them exceeding 0.65. This shows that students identify intrapersonal constraints as the most challenging constraints to participation in intramural sports. There is a possibility that structural constraints are more present, but students struggle to identify the external conditions that make participation challenging.

When comparing constraints with the gender of SUNY Cortland students, there were many significant differences, especially with intrapersonal constraints. Multiple constraints items received a p score of 0 when crossing them with gender. A p score of <0.001 means there is a 99.99% certainty that there is a significant difference between the groups. All the items that have a significant difference for constraints in relation to gender have a higher mean score for females than for males. That could explain the lower participation rates for women over men. A lack of will to participate, feeling uncomfortable participating, and participation causing a feeling of self-consciousness all had significant differences where women had a higher mean score than men. Professionals should take this into account and create a more welcoming environment for women

participants. First and foremost, an increased number of women participants will make other women more likely to participate. Sluss (2019) interviewed a women participant from a 3v3 basketball tournament who said, “I felt like I didn’t belong. There were so few of us females in a male-dominated space that I felt like I really faded into the background”. Simply by having more women participate in intramural sports and an increase in women representation may result in other women participating and, therefore, increasing the number of participants. Whaley, Titlebaum & Wallace (n.d.) suggest indoor sports, such as pool, bowling, volleyball and swimming to entice more women to play. They also suggested changing rules to make women feel more welcome, including a rule change to basketball and football that allows women to score more points than a man would. An atmosphere that fosters comfort participating and encourages those who may lack the skill to participate can open up possibilities for increased registration.

Motivation

This research also seeks to understand what motivates students to participate in intramural activities at SUNY Cortland. When comparing PALMS and class, the data showed a significant difference amongst individuals who participate to rest. Freshman/first-year students ($M=3.93$, $SD=1.07$), sophomores ($M=3.72$, $SD=1.36$), seniors ($M=3.66$, $SD=1.34$) and graduate students ($M=3.76$, $SD=1.20$) all recorded high mean scores. Alternatively, juniors ($M=2.94$, $SD=1.51$) had the lowest mean score for that item. That shows juniors do not tend to participate in order to rest, while all other classes are motivated to participate to rest. There were no other significant differences when comparing the Physical Activity and Leisure Motivation Scale with class. That implies that, while there may be some differences amongst the groups, there is a low probability of that. Overall, the top loaded item for the competency/mastery factor was to

develop physical skills and abilities, which was also the highest rated item of all motivators. Motivation through competency/mastery and intellectual factors rated the highest amongst all motivation factors, with stimulus/avoidance factors collecting the lowest data. That insinuates that students are motivated most by the opportunity to keep in shape and to develop physical fitness the most. Professionals should lean into the strongest motivators and promote their offerings as an opportunity to develop physical skills and abilities and to stay physically active.

The most significant difference in motivation when compared to gender is amongst individuals who participate to challenge their abilities. Men ($M=4.13$, $SD=0.86$) showed more motivation than women ($M=3.76$, $SD=1.18$) in regard to challenging their abilities. There is also a significant difference amongst men and women in relation to meeting new people, being active, developing physical skills and abilities, keeping in shape physically and developing physical fitness. Notably, five of those items are competency/mastery factors, while participation to meet new and different people is a social factor. This is vastly different than the research conducted by Cooper, Schuett and Phillips (2012). They compared motivation factors to participate in intramural sports with gender. Their data showed significantly higher motivation to participate due to appearance and social motives in women. Additionally, they found no significant differences in motivations to participate across class rank. One can suggest the student body populations are vastly different, as SUNY Cortland is known for being an athletic and active school. That can cause their students to search for activities that can push their athletic endeavors. Recreation professionals can market their events as a challenge, which will cause SUNY Cortland students to challenge their abilities. Additionally, intramural coordinators can create events that are more challenging to complete, such as advanced obstacle courses and football combines.

Hypotheses

The first hypothesis speculated that SUNY Cortland students choose alternate forms of exercise that enables them to exercise on their own time. This is based around the construction of the campuses \$56 million recreation and fitness facility, which allows students the opportunity to exercise whenever they want instead of being regulated to an intramural sports schedule. The study's results showed that physical fitness and exercise is still a strong motivator to participation in intramural sports. To be active was a top ranked item when comparing the Physical Activity and Leisure Motivation Scale with both gender and class. Additionally, to keep in shape physically, to be active and to develop physical fitness were the three highest ranked motivators amongst males. However, there were significant differences in many competency/mastery items. To develop physical skills and abilities ($Men=4.31$, $Women=3.88$, $p=0.021$), to be active ($Men=4.45$, $Women=4.17$, $p=0.013$), to challenge my abilities ($Men=4.13$, $Women=3.76$, $p=0.002$), to keep in shape physically ($Men=4.55$, $Women=4.11$, $p=0.004$) and to develop physical fitness ($Men=4.37$, $Women=3.94$, $p=0.021$) all had significant differences when comparing the Physical Activity and Leisure Motivation Scale with gender. The results of that T Test suggest male participants are significantly more motivated by competency/mastery factors than female participants. This follows Beggs, Nicholson, Elkins and Dunleavy (2014) study, where they found campus recreation participants to be motivated by competency/mastery factors the most. Their study compared motivation factors with different areas in campus recreation, such as fitness, aquatics and intramural participants. Intramural sport participants were found to be highly motivated by competency/mastery factors ($M=4.32$, $SD=0.66$) and least motivated by stimulus/avoidance factors ($M=2.92$, $SD=0.73$). This indicates that, while SUNY Cortland students do have the opportunity to exercise using different methods,

they still utilize intramural sport activities to gain physical fitness and to maintain a level of activity. While it is known that students utilize intramural sports to gain physical fitness and maintain physical activity, it is not known to what extent intramural sports plays a role in their planning of physical activity. Therefore, the hypothesis is rejected, since students are receiving exercise through intramural sports. Students may prioritize receiving physical activity from exercising in the fitness facility, with intramural sports serving as an add on. Essentially, intramural sports may act as extra physical activity for some students. That may mean some students receive all their physical activity from the fitness facility and do not feel they need intramural sports to maintain physical activity. Intramural sports, in that scenario, is an unnecessary activity to maintain physical activity. The results do not specify what role intramural sports plays in students' physical activity, only that it is a main proponent of it.

The second hypothesis suggested the intramural sports forfeit fee is too high, and students do not want to take the risk of paying them. The concept of a forfeit fee in intramural sports is a no-win scenario. From the department's standpoint, the intramural sport staff gets paid for any forfeits that occur. Therefore, the department is essentially paying to the staff to not work a game due to the forfeit. Previously, the forfeit fees equated to the amount of money spent to pay staff for that game. Florida Atlantic University (FAU) (Florida Atlantic University, n.d) published their forfeit fee structure online to show their process, their reasoning and their losses from forfeits. During the 2009-2010 academic year, FAU had 183 forfeits out of 807 games. Those forfeits amounted to \$5,119.75 in losses. While students may view payment of a forfeit as unnecessary, FAU's forfeit document shows the reason why a forfeit fee is needed. From a student's perspective, intramural sports at SUNY Cortland are advertised as a free opportunity to participate in sport leagues, with the exception of a few off-campus activities. Asking students to

pay nearly \$60 for a single forfeit, or \$120 if they forfeit twice, is a high cost. This research does not support the notion that SUNY Cortland students view participation in intramural sports as expensive. There was no significant difference with “Lack of money” when comparing that constraint with both gender and class. None of the mean scores exceeded 2.5, showing a low constraint in regard to finances. Additionally, “Lack of money” exceeded a factor analysis rating of 0.5, thus loading into its proper factor. Although it loaded properly into structural constraints, it was not a highly loaded factor. A speculation can thus be made that the high forfeit fees may not be a reason why SUNY Cortland students choose not to participate in intramural sports and, therefore, the hypothesis is rejected. However, this information may not give the full insight into the question at hand. The results of the survey do not specifically identify whether or not students believed the forfeit fee was too high, only that they did not identify a lack of money as a primary constraint. Students may believe the forfeit fees are too high, but do not forfeit games, and therefore do not worry about the fee. The other possibility is SUNY Cortland students view participation in intramural sports as free, but recognize the potential fees associated with a forfeit. That insinuates that students may not view cost as a constraint to a participation, but view forfeits as a constraint.

The third hypothesis speculated that SUNY Cortland students spend their time elsewhere and do not prioritize participation in intramural sports. Many structural constraints consist of items related to how college students spend their time. “Lack of time due to work, school or family”, “Lack of time because of other leisure activities” and “Inability to manage personal time” all relate to how to spend time. None of those items had a significant difference when related to class, as all of their p scores were above 0.05. Additionally, “Inability to manage personal time” did not load into the structural factor, as it did not load into any factor. Its factor

of 0.422 does load closest to structural factors, but it registers less than 0.5. However, that item does have a significant difference of 0.017 when comparing it with the gender of the survey participants. A higher mean score for women than men shows that women face a stronger constraint to participation in relation to managing their personal time.

No other item relating to time management registered a significant difference. “Lack of time due to work, school or family” and “lack of time because of other leisure activities” did both load into their proper factor, but the factor analysis was not as high for structural constraints as it was for intrapersonal constraints. Additionally, “Lack of time due to work, school or family” had the highest mean score amongst sophomores, juniors, seniors and graduate students, while ranking second amongst freshman/first-year students. The same can be said when comparing it to gender, as it was the highest ranked mean for both men and women. While there seems to be no significant difference amongst gender or class in regard to “Lack of time due to work, school or family”, the high means score shows that it is an extremely challenging constraint to participation for all students at SUNY Cortland. In the study conducted by Young, Ross and Barcelona (2007), the research found “Lack of time because of work, school or family” to be the most highly perceived constraint of students. Their results indicated that students did enjoy participating in recreational sports activities, but simply did not have the time to participate. This study echo’s those results by finding that students lack the time or the time management to participate.

The notion of a lack of time causing an inability to participate is not surprising. It shows that there may be an interest to participate from students, but they simply do not feel they have the time. There is a possibility that the lack of time is a perception that is not accurate. Mackay (2020) details an issue called time anxiety, which is described as a feeling that you never have

enough time and aren't doing enough with the time you do have. Additionally, Mackay (2020) claims the more people focus on the limited time they have, the more limiting their time feels. This may insinuate that students feel they do not have enough time to participate because of schoolwork, their jobs or their families, but actually do have more time than they believe. Another possibility is the potential perception that intramural sports takes up more time than it actually does, and students may believe they cannot fit it into their schedule. At SUNY Cortland, all intramural teams are scheduled for one game per week with the option to play two if they wish. Students would only participate for one hour per week and they have the ability to set the times they are able to participate. This shows there may be an ability to participate in intramural sports if students choose to, as it does not take much time out of a student's schedule. What this may show is students perceive intramural sports to take up more time than it actually does. Since sport clubs and varsity athletics have multi-hour competitions multiple days of the week in addition to many practices, students may see intramural sports as a similar commitment. While this is far from true, perception is reality. Recreation professionals should put effort into marketing their intramural offerings as low time commitment activities to show it only takes an hour per week to participate.

Another possibility that is not answered by this survey is if students simply do not prioritize participation in intramural sports. As mentioned before, intramural sport participation can take up as little as one hour per week, with an opportunity to participate more. When determining how to allocate their time during the week, students simply may not prioritize participation in intramural sports and are choosing to spend their time elsewhere. Seeing as a lack of time due to other leisure activities was the second highest constraint for both men and women, it is possible to conclude that intramural sports simply is not a priority for the students.

Limitations and Recommendations for Future Research

Study Limitations

There are several potential limitations to this study. The biggest one lies in the potential distribution of the survey. There is no specific group inside of SUNY Cortland's population that the survey is being distributed to. Instead, former intramural participants, current intramural participants and non-intramural participants will all receive the survey. If one of those groups, such as non-intramural participants, do not take the survey at the same rate as other groups, the results will be skewed. Former intramural participants could use the platform to vent about previous issues, such as horrible officials, while current participants would check off that they do play. That would not give an accurate representation of why current students do not participate in intramural sports.

Some survey participants may use the survey as an opportunity to vent about intramural sports. While the purpose of the survey is to understand the cause of declining participation, previous surveys sent out by the department have seen a heightened level of aggressive responses from survey takers. Typically, surveys get sent out at the end of a league's season to understand which aspects of the league participants enjoyed and which aspects could be improved. Very rarely do the answers given that shed light on the positives of intramural sports. Most of the time, the answers given reflect poor officiating, claiming the department should do a better job of hiring quality officials. This survey has the potential to have the same results, with responses only coming from those with severe issues, rather than those who may just not have time to participate anymore.

COVID-19 may have also skewed inaccurate results. Students may participate without the global pandemic, causing some data to skew towards the pandemic as the rationale for not participating. This could alter the data received by not highlighting the reasons for not participating during a typical academic year. A former participant may have chosen to not participate this year due to a previously poor experience, but ultimately chose not to participate due to concerns over COVID-19. Furthermore, COVID-19 has caused some students to not attend classes virtually this year. Some of those students may participate during a typical semester but are not currently on campus.

Recommendations for Future Research

While this study did generate significant data that answered many questions, there are recommendations that can be made to assist with better research going forwards. The first, and potentially biggest, recommendation would be to not conduct research on recreation participation at a college during a global pandemic. The COVID-19 pandemic caused many students to stay at home rather than attend school in-person. The increase in virtual learning made it possible for students to stay at home to receive their education. Additionally, the number of incoming first-year students may have decreased, as some may have made the decision to wait until the pandemic concluded so they can attend classes in-person. Those first-year students who did make the decision to attend college through the pandemic did not get the opportunity to participate in traditional intramural sports, such as 7v7 flag football, basketball, 6v6 volleyball and soccer. Typically, there are approximately 1,200 first-year students each year at SUNY Cortland (“First-year applicants”, n.d.). Many sophomores also missed out on a few traditional intramural sports, as 6v6 volleyball and arena flag football had yet to start when the pandemic began. Individuals who were waiting for those sport leagues may not have participated in

intramural sports yet. That means there is a potential that all 2020 first-year students and some 2019 first-year students had never participated in intramural sports, which is a large percentage of SUNY Cortland's student body.

Another recommendation for future research would be to incentivize participation in the studies research. A lack of incentive for students means that those who did participate did so out of good faith. There is also the potential that without any incentive, students who do not participate in intramural sports saw the email containing "intramural sports" and disregarded it. An incentive for them to take the survey could result in an increased number of non-intramural participant responses. A common incentive used at SUNY Cortland to increase participation in surveys is a \$25 Visa gift card or a piece of apparel from the college store.

Conclusion

Current research shows that there is a decrease in intramural sport participation. This decline is of great concern to the administrators of not only the intramural sports program at SUNY Cortland, but of campus recreation programs across the United States. Identifying a lack of time as one of the largest constraints to participation helps to understand why students are choosing not to participate. Additionally, a lack of time is the most strongly perceived constraint for all classes except first-year students, as they identified a lack of knowledge of activities available to them as their strongest constraint. Providers of intramural sport programs can take action toward eliminating this constraint by improved communication and creative campus marketing techniques focused on first-year students. They can do this by increasing their presence in COR 101 classes and summer orientation. The study also found that there are many significant differences amongst gender when determining constraints to participation, with women facing stronger constraints than men. Intrapersonal constraints consisted of the majority of the items with significant differences amongst gender. Each of the intrapersonal constraints with significant differences related to gender had a higher mean for women than men. Creating a more welcoming and inclusive atmosphere for all genders can help with decreasing perceived constraints amongst women and increasing their participation numbers. Research has suggested that recreation professionals should offer indoor sports, such as pool, bowling, volleyball and swimming to entice more women to play. They also suggested changing rules to make women feel more welcome, including a rule change to basketball and football that allows women to score more points than a man would. Some women decide not to participate due to the lack of women representation in intramural sports. Therefore, offering events that help promote participation for women will bring more women to the intramural sports program.

College students do have motivation to participate in intramural sport activities, as competency/mastery factors were amongst the highest rated motivators. Men found competency/mastery factors to be stronger motivators to intramural participation than women do. This means campus recreation professionals can put the effort forth to create activities that challenge the abilities of college students, such as an obstacle course or an advanced football combine. Alternatively, women are more motivated to participate due to stimulus/avoidance factors and most social factors than men are. Marketing intramural events as an opportunity to participate in leisure activities as an escape from academics can help to increase participation. Campus recreation professionals should lean into those motivators and present their programs as such. Collegiate students who are motivated to participate and can see a program that is offering activities that meet their motivation will likely decide to participate.

This study's results regarding marketing efforts can help campus recreation professionals to understand the most effective and preferred tactics for college students. Campus wide-emails were the most preferred way to learn about intramural sport activities, with social media ranking as the second most preferred. Seeing as those two methods were the highest ranked, a strong effort should be put forth by recreation professionals to ensure their campus wide-emails and social media are both strong. Additionally, word of mouth marketing was ranked as the third highest marketing tactic. Word of mouth will always be dangerous because it can go either way. Students who have positive experiences with intramural sport programs will tell their friends about it and recruit them to participate in the future. The opposite is also true, as those who have poor experiences will tell their friends and convince them not to participate. That makes it much more important to ensure participants have positive experiences with the program. Sometimes, that may mean doing whatever is necessary to turn a negative experience into a positive

experience. Situations that result in a participant turning their experience around will be remembered and they will tell their friends about it.

Overall, intramural sport participation at SUNY Cortland has been declining for a few years. Recreation professionals have many options to improve their intramural programs. By simply being more present at COR 101 classes and summer orientation will help recruit more first-year students. Advertising is a key component to a successful intramural sport program. Showing SUNY Cortland students that intramural events are not a large time commitment and can be easily fit into their schedule will allow more students to participate. Additionally, understanding which means of marketing are the most successful is equally important. While not every college will have the same successful marketing tactics, SUNY Cortland professionals should focus on campus wide-emails and social media, while also ensuring participants are having positive experience so they can share their experience with their friends. Lastly, finding ways to increase participation amongst women is very important. Instituting programming that is enjoyed by women will increase participation. By seeing an increased presence of women participation, more women will want to participate.

Appendices

Appendix A

Intramural Sports Participation Survey

1. Which of the following did you participate in since the beginning of the 2018 academic year? (select all that apply)
 - a. Club Sports
 - b. Intramural Sports
 - c. Varsity Sports
 - d. Non-organized physical activity
 - e. None of the above
2. How many hours per week do you typically participate in the following?
 - a. Club Sports: _____
 - b. Intramural Sports: _____
 - c. Varsity Sports: _____
 - d. Physical Activities (not club sports, intramural sports or varsity athletics): _____
3. How do you spend your leisure time? (select all that apply)
 - a. Socializing with friends (i.e. going to a bar, going to dinner)
 - b. Playing video games
 - c. Outdoor activities (i.e. hiking, fishing, biking)
 - d. Athletic endeavors (i.e. club sports, intramural sports, varsity athletics)
 - e. Relaxing (i.e. listening to music, reading, watching television)
 - f. Exercising
 - g. Other (please specify)
4. Which of the following best describes your motivation for participating in leisure activities? (1-5 scale)

Intellectual Factors

 - a. To learn about things around me
 - b. To satisfy my curiosity
 - c. To explore new ideas
 - d. To learn about myself
 - e. To expand my knowledge
 - f. To discover new things
 - g. To be creative
 - h. To use my imagination

Social Factors

 - i. To build friendships with others
 - j. To interact with others
 - k. To develop close friendships
 - l. To meet new and different people
 - m. To reveal my thoughts, feelings or physical skills to others
 - n. To be socially competent and skillful
 - o. To gain a feeling of belonging
 - p. To gain other's respect

Competency/mastery factors

- q. To challenge my abilities
- r. To be good in doing them
- s. To improve my skill and ability in doing them
- t. To be active
- u. To develop physical skills and abilities
- v. To keep in shape physically
- w. To use my physical abilities
- x. To develop physical fitness

Stimulus/avoidance factors

- y. To slow down
 - z. Because I sometimes like to be alone
 - aa. To relax mentally
 - bb. To avoid the hustle and bustle of daily activities
 - cc. To rest
 - dd. To relieve stress and tension
 - ee. To unstrucutre my time
5. How do you deal with stress?
6. How would you prefer to learn about upcoming Intramural Sport activities? (select all that apply)
- a. Campus wide e-mail
 - b. Social media posts
 - c. Campus television displays
 - d. Flyers/Posters
 - e. Word of mouth
 - f. Recreational Sports Website
 - g. IM Leagues
7. What obstacles make it challenging to participate in Intramural Sport events? (1-5)
- Interpersonal Constraints**
- a. No one to participate with
 - b. Inappropriate social environment
 - c. Friends don't like intramural sports
- Intrapersonal Constraints**
- d. Don't have the will to participate
 - e. Feel uncomfortable participating
 - f. I lack the skill to participate
 - g. Participation makes me self-conscious
 - h. Activities are too competitive
 - i. Activities are dominated by a specific gender
 - j. I am too shy to participate
 - k. Fear of failure
 - l. I don't enjoy intramural sports

- m. Social/cultural norms prevent me from participating
- n. Available activities are inappropriate for my gender
- o. Fear of violence
- p. Fear of injury

Structural Constraints

- q. Lack of time due to work, family, or school
 - r. I do not know what is available
 - s. Lack of time because of other leisure activities
 - t. Parking availability/convenience
 - u. Lack of money
 - v. Facilities are too crowded
 - w. Inability to manage personal time
 - x. Lack of transportation
 - y. Physically unable to participate
8. What Intramural Sport activities would you want to see offered?
9. To which gender identity do you most identify?
- a. Male
 - b. Female
 - c. Transgender female
 - d. Transgender male
 - e. Gender variant/non-conforming
 - f. Not listed (please specify)
 - g. Prefer not to answer
10. How would you describe yourself? (select all that apply)
- a. American Indian or Alaska Native
 - b. Asian
 - c. Black or African American
 - d. Native Hawaiian or Other Pacific Islander
 - e. White
 - f. Other (please specify)
11. Which of the following best describes your class rank?
- a. Freshman/First Year
 - b. Sophomore
 - c. Junior
 - d. Senior
 - e. Graduate Student
 - f. Faculty/Staff
12. Which of the following best describes your student status?
- a. Full-time
 - b. Part-time
13. Where do you currently live?

- a. On campus
 - b. Off campus (in Cortland area)
 - c. Off campus (not in Cortland area)
 - d. College suites
 - e. West campus
14. How frequently do you come to campus normally?
- a. Daily
 - b. Only during the week
 - c. 2-3 times per week
 - d. 1 time per week
 - e. Rarely/never

Appendix B

IM Leagues Participation Data (Spring 2019-Fall 2019)

Class/Gender	N	Percentage
First Year Students	399	20.61%
Male	265	66.42%
Female	134	33.58%
Sophomore	543	28.05%
Male	375	69.06%
Female	168	30.94%
Junior	758	39.15%
Male	512	67.55%
Female	246	32.45%
Senior	556	28.72%
Male	364	65.47%
Female	192	34.53%
Graduate Student	30	1.55%
Male	19	63.33%
Female	11	36.67%
Total	2,286	100%

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