GENERATION Z'S LEISURE CONSTRAINTS FOR CAMPUS RECREATION: TECHNOLOGY'S INFLUENCE ON CONSTRAINTS

By

BRAXTON GOINS

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Thesis Approved:

Dr. Taryn Price

Thesis Adviser

Dr. Donna Lindenmeier

Dr. Amber Manning-Ouellette

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Title of Study: GENERATION Z'S LEISURE CONSTRAINTS FOR CAMPUS RECREATION: TECHNOLOGY'S INFLUENCE ON CONSTRAINTS

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Abstract: This research looks at how Generation Z's technology usage affects their perception of Leisure Constraints for campus recreation participation. This research utilized Leisure Constraints Theory along with self-reporting technology usage to discover if statistical significance existed between technology usage and overall leisure constraints. Data was collected from university housing at a large, public, mid-west university. Mann-Whitney U testing was used to determine statistical significance. The results found no statistical significance between the technology usage groups and their level of leisure constraints for campus recreation participation. Future research suggestions and implications for campus recreation and student affairs professionals are provided.

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CHAPTER I

INTRODUCTION

The majority of the traditional college student population belong to Generation Z (Gen Z), and they will maintain the majority for the next 10-15 years. Understanding the dynamics and trends associated with Gen Z is imperative for higher education administrators to properly engage these students in academic, social, and wellness opportunities associated with their collegiate experience. Gen Z has never known a world without technology, and with an abundance of technology, it has created problems that are not seen in other generational groups. Gen Z is exposed to technology approximately eight hours daily (Turner, 2015). Constant connection to technology contributes to a more sedentary lifestyle (Seemiller & Grace, 2016), lower levels of self-esteem and physical activity, and higher levels of social isolation and mental illness, such as depression and anxiety (Rosen et al., 2013).

Counteracting the impact of Gen Z's overuse of technology imposes several challenges for higher education administrators who employ various student engagement opportunities. More recently, higher education administrators are placing greater emphasis on supportive systems to assist in students' well-being (Harward, 2016). A campus recreation facility is one of those entities that has emerged as a prominent source for student engagement that can mitigate the effects of a technology dependent generation. Research on student engagement through a campus

recreation facility is plentiful and indicates physical, social, psychological and academic benefits (Forrester, 2014; Miller, 2011; Smith 2018). Miller (2011) found that with consistent interaction with a campus recreation facility, students reported to have higher self-confidence, greater perceived happiness, increase in social interaction and increased physical fitness. Additional studies have shown that compared to students who did not engage with a campus recreation facility, students who utilized a campus recreation facility reported a higher GPA and desire to complete their collegiate degree (Belch et al., 2001). As such, campus recreation facilities continue to be utilized to enhance students' overall well-being, and this includes bridging the gap observed by Gen Z's generational differences.

Gen Z is reported to have a more sedentary lifestyle as compared to previous generations (Seemiller & Grace, 2016), and as their collegiate population increases, collegiate recreation participation numbers could be negatively affected. The National Intramural and Recreational Sports Association (NIRSA) is the largest professional organization for campus recreation. In recent studies, NIRSA has reported that 75% of college students have participated in campus recreation, and of those that have participated, 80% participate at least once a week (Forrester, 2014). Studies indicate high participation rates for campus recreation (Forrester, 2014; Hall, 2006; Myers et al., 2017), but are not focused on participation rates of Gen Z students.

A potential solution is identifying leisure constraints for the Gen Z student population. Leisure Constraints Theory (LCT) was conceptualized by Crawford and Godbey in 1987. This theory looks at constraints, which are defined as factors that affect activity participation and minimize satisfaction (White, 2008). These constraints are then broken down into three categories: intrapersonal, interpersonal and structural and directly influence recreation participation (Godbey et al., 2010). Examples of leisure constraints would be self-consciousness (intrapersonal), lack of friends to participate with (interpersonal) and not enough money to participate (structural) (Raymore, Godbey, Crawford, & von Eye, 1993).

Leisure Constraints Theory (LCT) has been utilized to define constraints for recreation participation (Raymore, Godbey, & Crawford, 1993). LCT has been used numerous times to look at identified constraints faced by college students participating in campus recreation. As Gen Z is already showing more sedentary lifestyles, a rise in obesity and social isolation (Lobstein et al., 2015; Seemiller & Grace, 2016), research is needed to identify and understand their perceived constraints. Young, Ross, and Barcelona (2003) identified existing constraints faced by students as lack of time due to work or family, no parking, no money, no knowledge of available programming, and no one to participate with. Though this research is beneficial in understanding constraints for participation, there is a lack of research on the present constraints faced by the Gen Z student population. As higher education professionals continually adapt to a changing student population, research is needed to understand trends and prepare for future directions. Identifying leisure constraints for Gen Z will specifically benefit the field of campus recreation and higher education administrators by providing insight on how to prepare for this incoming generation.

A lack of research on Gen Z creates a demand for the identification of the constraints that are being encountered for collegiate recreation participation; and allows higher education professionals to mitigate circumstances that are preventing Gen Z's participation in well-being supportive activities that complement their academic expectations.

Statement of Purpose

The primary purpose of this study is to identify leisure constraints that are preventing Gen Z college students from participating in on-campus recreation facilitated by campus recreation centers. This study will analyze the reported leisure constraints in Gen Z's campus recreation participation and attempt to provide context on reasons Gen Z is not participating in campus recreation facility offerings. Additionally, this study will look at leisure constraints for Gen Z in relation to their technology usage in an attempt to objectively identify a relationship

between technology usage and the type of leisure constraints impacting campus recreation center participation. Identification of perceived leisure constraints is an essential step to increase recreation participation for Gen Z college students allowing higher education administrators and campus recreation professionals to continuously engage an emerging population in beneficial development initiatives.

Research Question

The research questions guiding this project: What are the perceived leisure constraints preventing Gen Z college students from participating in recreation through campus recreation center? Additionally, what influence does technology usage have on leisure constraints in campus recreation facility participation?

Hypotheses

1. Students in high, medium, and low technology usage groups will report different levels of intrapersonal constraints.
2. Students in high, medium, and low technology usage groups will report levels of interpersonal constraints.
3. Students in high, medium, and low technology usage groups will report different levels of structural constraints.

Definition of Terms

Generation Z: Specific section of the population born between 1995-2010 (Seemiller & Grace, 2016).

Leisure Constraints: Factors that affect activity participation and minimize satisfaction (White, 2008).

Intrapersonal Constraints - Internal psychological qualities that influence leisure preference (White, 2008).

Interpersonal Constraints - Social factors that shape and develop leisure preference (White, 2008).

Structural Constraints - constraints that deal with the interaction of the physical environment in or around the activity. (White, 2008).

Well-being: Encompasses feelings of positive emotions, satisfaction with life and feeling good physically (Ryff & Keyes, 1995; Tay et al., 2015). Well-being is categorized into five types: emotional, physical, social, workplace, and societal (Davis, 2019).

Assumptions

1. It is assumed that participants are able to self-report leisure behaviors.
2. It is assumed participants will be able to self-report technology usage.
3. It is assumed that all participants are able to understand the LCT survey.
4. It is assumed that participants will answer the survey truthfully.

Significance of Study

Providing students with opportunities for holistic development is the primary goal for higher education professionals. Higher education professionals strive to continually find innovated ways to engage students; campus recreation becomes an indispensable asset. Campus recreation is a tool that provides students with opportunities for physical, emotional, social and intellectual development (Miller, 2011). The purpose of this study is to identify leisure constraints preventing Gen Z college students from participating at a campus recreation center. Identifying constraints can help campus recreation professionals implement new strategies to further engage Gen Z. Additionally, this research will look to see how technology usage effects the presence of

leisure constraints in Gen Z students. Constraints research proves to be valuable outside of the field of campus recreation by providing higher education professional a glimpse of the issues Gen Z is facing; whether intrapersonal, interpersonal or structural. Identifying these constraints can help bolster programmatic efforts in campus recreation, among higher education administrators and student affair professionals by contributing to a greater body of knowledge surrounding the Gen Z student population.

CHAPTER II

LITERATURE REVIEW

Generation Z

To better grasp the leisure constraints of Generation Z, we must identify their distinct traits and differences from previous generations. Gen Z, also called I-Gen, YouTube generation and digital natives are born between 1995 and 2010 (Prensky, 2001; Seemiller & Grace, 2011). Gen Z has aged dealing with the residual effects from the 9/11 terror attacks, the great recession, mass shootings and constant international war. According to Turner (2015), this has lead Gen Z to feel unsafe and experience increased reports of mental health issues. Alternatively, Gen Z has created a greater sense of global awareness, instilled values of fiscal responsibility, tolerance of others, education, employment flexibility and networking abilities. One of the most substantial defining traits for Gen Z is the abundance and prevalence of technology. Technology has simultaneously created benefits like greater access to information and interpersonal connectedness while simultaneously causing detrimental emotional, psychological and physical impacts in children and young adults (Rosen et al., 2013; Seemiller & Grace, 2016). Awareness of the effect that technology has on Gen Z is essential in understanding how to better adapt higher education and campus recreation programming to serve this population.

Technology Usage

According to Prensky (2001), no generation has grown up with technology so readily available. Gen Z has never known a world without the existence of the internet. While other generations had to adapt to technology, Gen Z was born with digital in their DNA, with some attaining a digital presence before birth (Palley, 2012). Previous generations needed separate devices for video games, music, phone calls and GPS; Gen Z can do everything with a single device that fits in their pocket (Seemiller & Grace, 2016). Constant technology interaction has benefits among the Gen Z population. With instant news at their fingertips, Gen Z is trending towards becoming a more socially conscious generation (Seemiller & Grace, 2017). The world becomes a smaller place with immediate access to news, which allows Gen Z to see problems and solutions in real time. Bers (2010) shows positive uses of technology include: meeting new people, keeping up with family and friends, finding romance partners and seeking therapeutic support in crisis. One of the most prevalent benefits we are seeing is the incorporation of technology in schools. Technology is used in schools with the desire to transform education and facilitate student learning (Xiaoqing et al., 2013). Technology in the classroom allows students to apply real-world skills, synthesize complex content, develop effective collaboration techniques and learn creative ways to express their ideas (Shank, 2005).

While technology is used to benefit many aspects of daily living, scholars are starting to observe the effects an abundance of technology usage has on Generation Z. With constant technology exposure, Gen Z is being negatively affected by the reliance on instant gratification. Gen Z can now be rewarded, gratified, hurt or rendered hopeless instantly through content exposure on their technology devices (Turner, 2015). Additionally, instant gratification has created a social dependence on technology that no longer accommodates downtime, day dreaming or moments to sit and reflect on major issues (Turkle, 2011).

This abundance of technology influenced by instant gratification has then created a dependence on technology. Ninety percent of Gen Z students reported they would be upset if they had to give up the internet, and 75% said they would be upset if they were not allowed to use their phones (JWT Intelligence, 2012). Turner (2015) shows that Generation Z spends approximately eight hours a day connected with technology. Constantly checking text messages, social media and phone calls fosters dependence on technology. Seventy-five percent of Gen Z reported checking their phone every hour for social updates, with some reports as frequent as every 15 minutes, which was shown to promote anxiety (Rosen et al. 2015). Rosen et al. (2015) also provided context stating extensive evidence between depression and constant texting, gaming, video watching and other forms of media. Technology dependence does not stop at depression and anxiety, it also has substantial effects on social competency. Caplan (2007) found that problematic internet use (i.e. internet overuse) leads to increased levels of loneliness and low social skills. Additionally, Caplan (2007) shows a correlation between social anxiety and a pre-disposition to communicate online rather than face-to-face. Turner (2015) mirrors this finding stating that Gen Z is overly reliant on technology at the detriment of face-to-face communication skills. Another way technology is negatively affecting Gen Z is through the overuse of social media. Social media use has been linked to depressive symptoms and decrease well-being in young adults (Kross et al., 2013; Lin et al., 2016). Further research shows that social media addiction or problematic social media use – defined as excessive concern or motivation to use social media that it impairs social activities, jobs, schooling or relationships is strongly associated with depression along with deteriorating psychological health and well-being indicators (Shensa et al., 2017; Andreassen & Pallesen, 2014; Kuss & Griffiths, 2011). Technology and social media usage are primary characteristics for Gen Z students and will continue to affect how they perceive and interact with their environment, including a college campus. Understood in this way, it is important for professionals in the field of higher education and campus recreation to know the effects of technology in order to establish a needs baseline for Gen Z student in the future.

Well-Being

People around the world view happiness as an essential life goal (Tay et al., 2015). Yet with Gen Z, scholars observe instances where technology and societal issues are beginning to affect their experiences of well-being (Seemiller & Grace, 2017; Silverstone & Teatum, 2011; Sisson et al., 2010; Turner, 2015). There is no set definition for well-being, but the general consensus states that well-being encompasses feelings of positive emotions, satisfaction with life and feeling good physically (Ryff & Keyes, 1995; Tay et al., 2015) Davis (2019) highlights five types of well-being including emotional, physical, social, workplace, and societal. Based on the context of the current study, this paper will focus on the emotional, physical, and social types of well-being as defined by Davis (2019).

Emotional well-being is defined as the ability to manage stress, be resilient, and generate positive emotions (Davis, 2019). One of the major benefits of emotional well-being is the ability to cope with difficult situations throughout one's lifetime (Davis, 2019). Each generation is defined by major world events, tragedies, and the political landscapes they lived through. Gen Z has been heavily influenced by major impactful events in the United States including 9/11, mass shootings, a major recession and constant media coverage on issues such as terrorism, protests and immigration concerns. These large scale, high-stress events have led to the construction of low self-esteem, stress and anxiety (Seemiller & Grace, 2017). For example, Gen Z children were raised during the height of the Great Recession of 2008. Because of this recession, children were raised in a household where many parents were experiencing financial hardships for the first time (Turner, 2015). In these times of crisis, Gen Z youth learned to be more conscious of their money and were subjected to harsh parenting tactics, which affected their behavior and potentially influenced the development of stress and anxiety (Seemiller & Grace, 2017; Turner, 2015). The American Psychological Association (2018) conducted a study on 3,458 adults to analyze the levels of stress and mental health of the living generations. Twenty seven percent of Gen Z adults

reported their mental health to be poor or fair compared to 15% of millennials, 13% of Generation X, and only 7% of Baby Boomers (American Psychological Association [APA], 2018). This rise in anxiety can be attributed to constant media exposure of events related to terrorism and violence (Seemiller & Grace, 2017). The same study reported three out of four Gen Z students said the fear of mass shootings was a significant source of stress in schools (APA, 2018). Twenge (2015) found that more people are reporting depressive symptoms and teenagers are now twice as likely to seek professional help for depression. While current events are contributing to the way Gen Z sees the world, technology is equally responsible for the rise in mental health issues. In a study of 180 college students, the more time reported spent on Facebook, the higher the incidence of depressive symptoms were experienced (Steers et al., 2014). It does not end there, depression can be linked to excessive texting, online video streaming, video gaming, and emailing (Rosen et al., 2013). Gen Z struggles with emotional well-being more than any other generation (APA, 2018), therefore it is important for higher education professionals to continually challenge Gen Z with programming that reinforces positive mental health.

Davis (2019) defines physical well-being as the ability to improve your overall health through exercise and healthy eating habits. Physical well-being not only contributes to the overall health of an individual, but it also affects emotional well-being through confidence and healthy habit formation (Davis, 2019). In Gen Z, research show a preference of sedentary activity which is accompanied by a spike in adolescent obesity, meaning more students entering college are struggling with obesity (Seemiller & Grace, 2017). Lobstein et al. (2015) found that childhood obesity has risen substantially over the last generation and currently one third of American children are obese. In a study of Gen Z children, increased sedentary patterns such as taking a bus to school, removal of physical education classes, and increasing quantity of technology exposure has been suggested to negatively impact to childhood obesity (Chakravarthy & Booth, 2003).

Looking at past research on adolescents and teenagers helps us to observe Gen Z in a wider lens before they arrive on college campuses, and further understand how to help them navigate towards healthy well-being.

A large part of Gen Z's sedentary lifestyle is contributed to the excessive hours spent engaging with technology (Silverstone & Teatum, 2011). Studies found that nearly half of Gen Z adolescents spend two or more hours in sedentary, screen-based leisure activities daily (Sisson et al., 2010). Furthermore, Sisson et al. study also shows that when adolescents increased their screen time, their physical activity time decreased (Sisson et al., 2010). When considering technology and social media exposure, watching television, internet use, and playing video games predicted multiple mental and physical health issues (Martin, 2011). Rosen et al. (2014) found that in Gen Z teenagers ages 13-18 years old, personal technology use such as texting, phone calls and social media were predictors of ill-being such as behavioral, psychological, attention and physical health problems. These issues of ill-being are then carried into the Gen Z college experience, and it is the job of higher education professionals to then create a pathway towards initiatives that promote overall well-being.

Social well-being is defined as the ability to communicate, develop relationships, and establish social support systems (Davis, 2019). The development of social skills helps one to have positive interactions with others and to feel less disconnected (Davis, 2019). Constant connection to technology and social media use contribute to social isolation and development of mental illness such as anxiety and depression (Rosen et al., 2015). Furthermore, Meena et al. (2012) found that addictive social media use negatively affects social relationships, community involvement and academic achievement, and is heightened by social isolation. Social media use also has a strong to relation to one's self-esteem (Andreassen et al., 2017). Individuals with a low self-esteem tend to be more reliant on social media to avoid problems and attain validation (Blachino et al. 2016), yet social media feedback tends to be negative and less supportive than

anticipated (Forest & Wood, 2012). Alternatively, research indicates that individuals with high self-esteem are less dependent on social media (Blanchino et al., 2016). Turner (2015) discussed that technology originally was used to supplement face-to-face interactions and make communication more convenient. However as technology interactions became more prevalent, face-to-face communication is now seen as impractical. This creates problems for Gen Z because as they become more reliant on technology for social interactions, it deteriorates face-to-face social skills and promotes heightened anxiety when placed in social situations (Turner, 2015). Caplan (2007) had similar findings crediting internet overuse to increased levels of loneliness.

Campus Recreation

Historically, higher education has emphasized support for well-being and development of the whole student, which creates the challenge of adjusting to the generational shift for Gen Z students. As such, higher education professionals are seeking new ways to properly engage Gen Z in beneficial developmental activities. One of the most impactful ways is through campus recreation programming. Campus recreation is a branch of student affairs that caters to university students through specified programming including fitness, recreational sport, group fitness classes, and educational classes such as cooking or stress management. A campus recreation center is a centralized location that houses all aspects of campus recreation. A campus recreation center is not as simple as a weight room in a student union, but is instead often an independent facility with specialized programming and full-time staff members. Past research has shown there is a positive relationship between campus recreation centers and student development (Dalgarn, 2001). Gen Z is shown as having issues with technology dependence, high obesity rates, sedentary lifestyles and increased levels of mental illness (Silverstone & Teatum, 2011; Lobstein et al., 2015; Seemiller & Grace, 2016; Turner, 2015). Campus recreation center participation is shown to increase physical activity, enhance social skill development, and improve student GPA and university retention rates, while decreasing levels of stress, anxiety, and depression (Miller,

2011; Smith, 2018; Bell et al., 2014; LaFave, 2016). The relationship between campus recreation participation and student benefits is abundant. When we look at Gen Z and their struggle with well-being, we begin to see how campus recreation can be a beneficial intervention for higher education professionals.

Benefits

Many studies have been conducted providing evidence of campus recreation facilities being used as a tool to benefit students' lives (Miller, 2011; Smith 2018; Bell et al., 2014; LaFave, 2016). Though research on this topic is plenty, studies conclusively show that participation in campus recreation positively affects the well-being of students. Campus recreation facilities also improve the institution. Approximately 68% of students took campus recreation facilities into consideration when deciding which school to attend (Forrester, 2014). Forrester (2014) showed that 91% of students who utilized a campus recreation facility said it increased their feeling of well-being. As universities begin to focus on well-being, we see that campus recreation can be used as a beneficial tool for Gen Z student development.

Emotional well-being issues are widely reported among Gen Z (APA, 2018; Seemiller & Grace, 2017; Steers et al., 2014; Twenge, 2015). Campus recreation not only affords students an opportunity to get physically active, but provides students with opportunities to increase their emotional well-being. Research shows that with consistent interaction with a campus recreation facility, students reported to have higher self-confidence, greater perceived happiness, and improved emotional well-being (Miller, 2011; NIRSA, 2004). Forrester (2014) reported over 80% of students also reported stress management and self-confidence as benefits of campus recreation. Additionally, students indicated that relieving stress was a primary reason for attending a campus recreation center (Forrester, 2014).

The most widely reported benefit of campus recreation participation is physical fitness, strength, and overall health (Forrester, 2014). In a generation that is struggling with issues of obesity and inclination to sedentary activities (Lobstein et al., 2015; Seemiller & Grace, 2017), campus recreation provides a much needed service of getting students active. In a census of students, The Ohio State University (2002), reported that students used the recreation facilities to develop physical well-being, relieve stress, and attain fun and enjoyment. In a large study across college campuses, it was found that 75% of students agreed campus recreation facilities helped them stay healthy and active and over 90% of students said they increased their fitness, health and well-being after regular participation (Forrester, 2015).

Social well-being is one of primary benefits that campus recreation provides to a student population. Research indicates that participation in campus recreation helped students feel more at home and make new friends (Forrester, 2014; Watson et al., 2006). Research also shows that campus recreation facilities help to foster communities on college campuses (Hall, 2006), and that a campus recreation center environment helps foster social interaction among students and assist new students with adjusting to campus life (Elkins et al., 2011). The social skill development component of campus recreation allows higher education professionals to incorporate unique strategies to mitigate combat social well-being issues in Gen Z.

Participation

Collegiate recreation is beneficial in getting students involved on campus, while encouraging students to improve mental health, social skills and physical fitness (Miller, 2011; Webb & Forrester, 2015). There have been many studies done to determine the participation rate in college recreation among current college students. In a study consisting of 35,500 college students across 38 institutions in North America, Forrester (2015) and Hall (2006) concluded that approximately 75% of students were using their recreation centers on a weekly basis, and that

approximately 90% of students would stay at the recreation center for 30 minutes or more per visit. Another study at The Ohio State University (2002) reported that 92% of students participated in physical activity at least once a week. Yet, Rosen (2000) found that 40-75% of college students are not participating in vigorous physical activity or meeting American College Health Association minimum guidelines (American College Health Association, 2011; Rosen 2000). The challenge for current and future campus recreation professionals is maintaining and increasing active participation in campus recreation amongst a population that battles increased mental health issues and decreased physical activity levels than years past. One way this is possible is by identifying what barriers Gen Z are confronting that constraints their campus recreation participation.

Leisure Constraints Theory

The Leisure Constraints Theory was conceptualized in 1987 by Crawford and Godbey. The Leisure Constraints Theory breaks down constraints into interpersonal, intrapersonal, and structural constraints, which are all encountered before the decision of participation (Godbey et al., 2010). If the individual decides to participate, they again face the interpersonal, intrapersonal, and structural constraints of the activity at hand before deciding upon adoption of the activity for the future (Godbey et al., 2010). The only addition to Leisure Constraints Theory has been the concept that the individual faces interpersonal negotiation after experiencing intrapersonal and interpersonal constraints before dealing with structural constraints, as well as each person has a pre-existing motivation towards an activity (Jackson et al., 1993). Interpersonal negotiation is when the participant negotiates, with others around them, whether they want to participate based on interpersonal and intrapersonal constraints (Jackson et al., 1993). However, before contemplation of constraints begins, the individual must take into account their existing motivation towards an activity (Jackson et al., 1993). Existing motivation is high when they find

interest and intrinsic satisfaction from the activity. Motivation is low when they are being forced, or directed to participate in an activity by others, or by a social situation.

Leisure constraints research has been used to define barriers in everything from public park visitation to adventure recreation participation. For campus recreation, research is plentiful and looks at the reasons in which students do not participate or engage with campus recreation centers. As we look at past research, it is important to see how constraints have been defined, and how we can continually add to the previous body of knowledge. One way in which constraints has changed across all sectors is looking at the incorporation of technology. This becomes extremely impactful when considering the constraints for Gen Z participation where technology is engrained in their everyday life. Sisson et al. (2010) noted that in Gen Z students, the more time spent using technology, the less time they spent engaging in physical activity. In similar constraints research, it was also found among college students that cell-phone addiction increased the prevalence of leisure constraints (Soyer, 2019). Research on intrapersonal, interpersonal, and structural constraints to campus recreation is more abundant, and studies are continually being completed to reevaluate the presence of known constraints.

Intrapersonal constraints

Intrapersonal constraints are internal psychological qualities that influence leisure preference (White, 2008). Raymore, Godbey, Crawford, and von Eye (1993) defined the most common intrapersonal constraints to leisure activity being self-consciousness, not having other friends or family to join them, and not having the necessary skill to participate`. In a study of constraints faced by residential college students to leisure participation, the researchers found that the most prevalent intrapersonal constraints were not having the will to participate, and feeling self-conscious in participation (Young et al., 2003). A more recent study added the intrapersonal

constraint of not having enough physical energy to be physically active as a top constraint as well as lacking confidence and skill (Powers et al., 2019).

Interpersonal constraints

Interpersonal constraints are the social factors that shape and develop leisure preference (White, 2008). Raymore, Godbey, Crawford, and von Eye (1993) defined the most common interpersonal barriers as not having someone to join you because they do not have proper transportation, they do not have the time to participate, or they live too far away from the recreational activity. Young et al. (2003) identified the most common interpersonal constraints faced by residential students were lack of friends to participate with and perceiving an uncomfortable social environment. More recent studies have added interpersonal constraints, such overcrowded facilities or not having friends that are interested in physical activity (Powers et al., 2019).

Structural constraints

Structural constraints deal with the interaction of the physical environment in or around the activity. (White, 2008). Raymore, Godbey, Crawford and von Eye (1993) defined the most common structural barriers as facilities being too crowded, facilities not being in a convenient location, and not having proper transportation. Results found in the study by Young et al. (2003) found that residential students faced structural constraints more than commuter students. The researchers found this to be true across the three prevalent reported structural constraints: overcrowded facilities, lack of transportation, and parking availability. More recently, research shows that the most encountered structural constraints are lack of free time and parking availability (Stankowski et al., 2017). Structural constraints are generally the most prevalent of the constraints listed due to college students perceiving a lack of time or other obligations that would interfere with physical activity (Stankowski et al., 2017)

Conclusion

Research clearly indicates that Gen Z struggles with poor emotional, physical, and social well-being (APA, 2018; Seemiller & Grace, 2017; Turner, 2015**).** Though there are many suggested causes, one of the most substantial is Gen Z's reliance and overuse of technology (Rosen et al. 2015; Turner, 2015**).** As higher education professionals prepare for the generational shift from millennials to Gen Z, it is important to continually adapt strategies that further engage students. One of the greatest tools to engage students in developing positive well-being is campus recreation participation. Campus recreation helps to increase social skill development, physical activity, and lower rates of depression and anxiety (Forrester, 2014; Miller, 2011; Smith 2018; Bell et al., 2014; LaFave, 2016). This research will look to define the leisure constrains faced by Gen Z students for campus recreation participation, and how technology use influences the prevalence of perceived constraints.

CHAPTER III

METHODOLOGY

Generation Z college students have been raised with constant exposure to technology. (Seemiller & Grace, 2017; Turner, 2015). The overuse of technology is shown to create issues in areas of well-being for Gen Z college students (APA, 2018; Seemiller & Grace, 2017; Turner, 2015). For higher education professionals, indispensable benefits are provided to students who engage in campus recreation centers (Forrester, 2014; Miller, 2011; Smith 2018; Bell et al., 2014; LaFave, 2016). The current study will gauge technology usage in Gen Z to identify relationships between leisure constraints in context of campus recreation center participation and levels of technology usage.

Participants

This study will employ a quantitative survey to students at a public, land grant, residential university with an enrollment of approximately 25,000 students located in a rural town in the mid-west United States of America. The population defined by the study is Gen Z college students. The sample for this survey will be taken from residential freshman college students attending the mid-west university. Exclusionary criteria include students born before the year 2000 as to collect a sample fully consisting of Gen Z students. This institution has a current projected freshman enrollment of 4,100, while total number of students living in housing is approximately 5,300. At this specific institution, freshman are required to live in campus housing

during the first year of enrollment, making a survey of freshman living in campus housing a convenience sample. To maintain a confidence level of .95 with a confidence interval of +/- 5 the estimated sample size needed for this study will be 351 participants (Henderson & Bialeschki, 1995). Permission was acquired through the Department of Housing and Residential Life to contact freshman students through a housing listserv. An email was sent out requesting students to complete a survey about their campus recreation participation. After one week, a reminder email was sent out asking for participation. One week after the reminder email the survey link was closed and data analysis began using the completed surveys.

Instruments

Participants in this survey will take 5-10 minutes to answer 33 questions about demographics, campus recreation center usage, technology usage, and leisure constraints based to assess Gen Z campus recreation center usage. This survey will be administered through the online survey platform Qualtrics. Demographic questions will include age, classification, and gender. Campus recreation center usage questions will include hours of participation per week, optimal hours of participation per week, and services used within campus recreation center. Technology usage will be determined by asking survey participants to self-report hours spent engaging with technology daily. The survey will give three parameters in which participants can self-report and will be coded accordingly: low (1-4 hours); medium (4-7 hours); and high technology usage (7+ hours). For statistical analysis, technology usage will be separated into high, medium and low usage groups based on previous research documenting average technology usage among Gen Z college students (Barkley & Lepp, 2016; Giunta, 2017; Soyer, 2019). A leisure constraints survey will then be administered adapted from Powers et al. (2019) based off of leisure constraints theory by Crawford & Godbey (1987). This survey was adapted to include language specifically asking for campus recreation center usage, but the structure of each question remains intact. This survey uses a Likert-type scale asking participants to rate each statement from (1) strongly disagree to (5) strongly agree. The mean of each question is then used to define the overall

existence of leisure constraints faced by the participants. Using an exploratory factor analysis with a varimax rotation, the 25 leisure constraints questions were then factored into five domains (time, $\alpha = .62$; management, $\alpha = .73$; social support, $\alpha = .75$; self-efficacy, $\alpha = .86$; transportation, $\alpha = .64$; safe environment, $\alpha = .83$) (Powers et al., 2019). Additionally, internal consistency test revealed strong reliability for all constraints (DeVellis, 1991; Powers et al., 2019). For statistical analysis each of the five domains will be further grouped into their accompanying constraint category according to leisure constraints theory by Crawford & Godbey (1987) including but not limited to: interpersonal (social-support); intrapersonal (self-efficacy); structural (transportation).

Statistical Analysis

Statistical analysis will take place on SPSS version 24. The data collected will be non-identifiable and anonymously transferred from Qualtrics to SPSS. Descriptive will be run to determine mean, median, mode, and standard deviation of constraints and identify technology usage groups. The comparison of the different technology usage groups will be statistically analyzed using an ANOVA test. This test will show the differences between the different technology groups and their reported leisure constraints. The specific ANOVA analysis being used is the nonparametric Mann-Whitney U test. This test was chosen in order to determine the differences when comparing the leisure constraints levels of each technology usage group.

CHAPTER IV

RESULTS

Overview

The data collected in this research was used to discover the level of constraints faced by Gen Z college students in relation to their estimated technology usage. Data collection took place among campus residential housing students at a single university. The survey was sent out to a total of 4,411 housing students. Of this sample there were 345 responses. After excluding responses due to incompletion, student age, and student classification, there were a total of 201 usable surveys, which computes to a 4.6% response rate.

To assess the results, statistics were ran using SPSS software by initially dividing participants into their technology usage groupings. Technology usage was a self-assessment question on the survey asking the respondents to estimate their technology usage daily from 1-4 hours, 4-7 hours, and 7+ hours. The responses were then directly translated to the three technology groupings of low, medium, and high. Table 1 represents the responses as the defining groups for this study.

Table 1

Technology Usage (Hours)

Category	N	Percentage
1-4 (Low)	49	24.4%
4-7 (Medium)	95	47.3%
7+ (High)	57	28.3%
Total	201	100%

Next the leisure constraints questions were divided into their appropriate category as defined by leisure constraints theory (Crawford & Godbey, 1987). The 25 question leisure constraint questionnaire was further divided into three categories: intrapersonal (12), interpersonal (8), and structural (5) constraints. Each hypothesis looks at a different category of leisure constraints and their overall presence among the different technology groups. Mann-Whitney U testing was then ran to determine if statistical differences were present between the technology groups, and their overall reported leisure constraints.

Demographics

Of the respondents to this survey, 54 (26.9%) were male and 146 (72.6%) were female, while 1 (.5%) responded as other (Table 2). The inclusion criteria for this research required all participants to be freshman students. For the research to be specific to Gen Z, participants were asked to report their age to meet the exclusion criteria of being born on or after 2000. The results of the respondents' ages are provided in Table 2. Lastly, to further assess for the demographics of participants, participants were asked to report the race they identify with. Though not used in the statistical analysis, this helps to better understand the participants received from the sample, identify limitations, and assess future research directions. The results of this assessment is observed in Table 2.

Table 2

Participant Demographics

Category	**N**	**Percentage**
Gender		
Male	54	26.9%
Female	146	72.6%
Other	1	0.5%
Total	201	100%
Age		
18	62	30.8%
19	127	63.2%
20	12	6%
Total	201	100%
Race		
White	151	75%
Hispanic or Latino	17	8.5%
American Indian or Alaska Native	15	7.5%
Black or African American	7	3.5%
Asian	7	3.5%
Other	4	2%
Total	201	100%

Additional questions were asked to better understand the recreation preferences of the population of Gen Z students. The first question asked for average number of visits per week. This question helps to gather background knowledge of how often Gen Z students, in this population, are utilizing recreation center services. The responses to this question showed 41 (20.4%) answered “0 visits” per week, 93 (46.3%) answered “1-2 visits”, 49 (24.4%) answered 3-4 visits, and 17 (8.5%) answered 5+. Results are provided in Table 3. The next question sought to discover if students perceived they were visiting the recreation center as much as they should be. With the question asking if students went to the recreation center as often as they would like to, 63 (31.3%) answered yes while 137 (68.2%) answered no with one (.5%) not answering the question (Table 3). The next question sought to evaluate how often this population of Gen Z students believed they should participate at the campus recreation facility by asking them to report the optimal number of visits per week. Fourteen (7%) students indicated “0 visits” per

week, 34 (16.9%) answered “1-2 visits”, 104 (51.7) answered “3-4 visits”, and 49 (24.4%) answered “5+ visits” per week. (Table 3).

Table 3

Participant Visitation Results

Category	**N**	**Percentage**
Average number of visits per week		
0 Visits	41	20.4%
1-2 Visits	93	46.3%
3-4 Visits	49	24.4%
5+ Visits	17	8.5%
Total	201	100%
Do you visit as often as you would like?		
Yes	63	31.3%
No	137	68.2%
Missing	1	0.5%
Total	201	100%
Optimal number of visits per week		
0 Visits	14	7%
1-2 Visits	34	16.9%
3-4 Visits	104	51.7%
5+ Visits	49	24.4%
Total	201	100%

An additional question was asked to identify what services are most used by the Gen Z target population. This question was included to add to the body of knowledge for campus recreation professionals, and to help better understand Gen Z preference. This question asked participants to select all services that they use when attending the recreation center out of 13 pre-selected activities. Responses showed services used as: 117 (58.2%) open gym; 94 (46.8%) free weights; 148 (73.6%) cardio equipment; 18 (9%) outdoor adventure; 0 (0%) golf; 58 (28.9%) group fitness; 6 (3%) personal training; 13 (6.5%) aquatics; 17 (8.5%) racquetball; 10 (5%) soccer/futsal; 36 (17.9%) intramurals; 13 (6.5%) performance studio; 4 (2%) e-sports (Table 4).

Table 4

What services do you use?

Category	N	Percentage
Open gym	117	58.2%
Free weights	94	46.8%
Cardio equipment	148	73.6%
Outdoor adventure	18	9%
Golf	0	0%
Group fitness	58	28.9%
Personal training	6	3%
Aquatics	13	6.5%
Racquetball	17	8.5%
Soccer/Futsal	10	5%
Intramurals	36	17.9%
Performance studio	13	6.5%
E-sports	4	2%
Total	534	

Hypothesis I

Hypothesis I looked to find differences in the perceived intrapersonal constraints among the technology usage groups. Once the intrapersonal constraints questions were identified, the means were assessed in SPSS to gather an overall mean for each student. The overall mean constraint score for each technology group were: low – 2.22; medium – 2.21; high – 2.30. Once the intrapersonal means were defined, Mann-Whitney U testing was then conducted to look for statistical differences between the different technology usage groups. Because Mann-Whitney U only test for difference between two groups, three individual tests were ran to fully compare each technology group to one another. The results from the testing found no statistically significant differences between the groups overall intrapersonal constraints. However, when looking at the ranked mean between groups, the high technology usage group reported increased overall intrapersonal constraints as compared to the other usage groups. The first Mann-Whitney U test found the following mean ranks: low – 72.58 and medium – 72.46. This posed the least significant difference at .987. The second test found the following mean ranks: medium – 72.89

and high – 82.51. This posed the highest significant difference of .191. The last test found the following mean ranks: low – 49.80 and high – 56.68. This posed a significance of .249 (Table 5). All three tests found a significance level of greater than .05, therefore; null hypothesis I is retained.

Table 5

Intrapersonal Mann-Whitney U

Category	**N**	**Mean rank**	**Sig. (2-tailed)**
Test 1			
1-4 hours (Low)	49	72.58	
4-7 hours (Med)	95	72.46	
			.987
Test 2			
4-7 hours (Med)	95	72.89	
7+ hours (High)	57	82.51	
			.191
Test 3			
1-4 hours (Low)	49	49.80	
7+ hours (High)	57	56.68	
			.249

Hypothesis II

Hypothesis II looked to find differences in the perceived interpersonal constraints between the different technology usage groups. The interpersonal constraints question data was identified and means were assessed in SPSS to create an interpersonal constraint mean score for each participant. The overall mean constraint for each technology group were nearly identical with the following results: low – 2.52; medium – 2.53; high – 2.55. Once the mean score was identified, Mann-Whitney U testing was then conducted to look for statistical differences between the different technology usage groups. Similar to Hypothesis I, three different tests were ran to analyze the difference between each of the technology usage groups. The results from the test found no statistical differences between the technology usage groups. Though no significant results were found, similar to the first hypothesis, the high technology usage group reported a

higher mean rank compared to the other groups. The first Mann-Whitney U test found the following mean ranks: low – 72.22 and med – 72.64. This posed the least significant difference at .954. The second test found the following mean ranks: med – 75.62 and high – 77.97. This posed a significance of .748. The last test found the following mean ranks: low – 52.57 and high – 54.30. This posed a significance of .772 (Table 6). All three tests found a significance level of greater than .05, therefore; null hypothesis II is retained.

Table 6

Interpersonal Mann-Whitney U

Category	**N**	**Mean rank**	**Sig. (2-tailed)**
Test 1			
1-4 hours (Low)	49	72.22	
4-7 hours (Med)	95	72.62	
			.954
Test 2			
4-7 hours (Med)	95	75.62	
7+ hours (High)	57	77.97	
			.748
Test 3			
1-4 hours (Low)	49	52.57	
7+ hours (High)	57	54.30	
			.772

Hypothesis III

Hypothesis III looked to find differences in the perceived structural constraints between the different technology usage groups. The structural constraint question data was identified and means were assessed in SPSS to create structural constraint mean score for each participant. The overall mean constraint for each technology group were: low – 1.83; medium – 1.88; high – 1.93. Once the mean score was identified, Mann-Whitney U testing was conducted to look for statistical differences between the different technology usage groups. Similar to the other hypotheses, three different tests were ran to analyze the difference between each of the technology usage groups. The results from the testing found no statistical difference between the

technology usage groups. Though the results were not significant, the data mirrors the findings in the first two hypotheses that the higher technology usage groups showed a higher mean rank as compared to the other groups. The first Mann-Whitney U test found the following mean ranks: low – 68.92 and med – 74.35. This posed a significance of .457. The second test found the following ranked means: med – 74.81 and high – 79.32. This posed a significance of .538. The last test found the following ranked means: low – 49.72 and high – 56.75. This posed the highest significance of .239 (Table 7). All three tests found a significance level of greater than .05, therefore; null hypothesis III is retained.

Table 7

Structural Mann-Whitney U

Category	**N**	**Mean rank**	**Sig. (2-tailed)**
Test 1			
1-4 hours (Low)	49	68.92	
4-7 hours (Med)	95	74.35	
			.457
Test 2			
4-7 hours (Med)	95	74.81	
7+ hours (High)	57	79.32	
			.538
Test 3			
1-4 hours (Low)	49	49.72	
7+ hours (High)	57	56.75	
			.239

Summary of Results

In conclusion, after using Mann-Whitney U analysis this study did not find that Gen Z's technology usage had a statistically significant impact on perceived intrapersonal, interpersonal, or structural constraints. However, across the three hypotheses, it is seen that the high technology usage group reported a higher ranked mean when compared to the other technology usage groups. Hypothesis I in this study was: Students in high, medium, and low technology usage groups will report different levels of intrapersonal constraints. Statistical significance was not found,

therefore the study failed to reject the null hypothesis. Hypothesis II stated: Students in high, medium, and low technology usage groups will report different levels of interpersonal constraints. Statistical significance was not found, therefore the study failed to reject the null hypothesis. Hypothesis III stated: Students in high, medium, and low technology usage groups will report different levels of structural constraints. Statistical significance was also not found, therefore the study failed to reject the null hypothesis.

CHAPTER V

DISCUSSION

Introduction

The primary purpose of this study was to identify leisure constraints preventing Gen Z college students from participating in the campus recreation center. Furthermore, the study attempted to discover if technology usage impacted the overall perceived intrapersonal, interpersonal, and structural constraints. Utilizing Mann-Whitney U testing, the data was analyzed for statistically significant differences between the technology groups and their overall intrapersonal, interpersonal, and structural constraints. After testing, no statistical significance was found showing that technology usage impacted overall leisure constraints. However, data indicated that the high technology group had a higher mean of each leisure constraint, though it lacked a statistically significant difference.

LCT has been used for decades to assist in the determination of factors that prevent participation in leisure activities. For campus recreation, LCT is vital as populations change to evaluate their needs and barriers. Though this research lacks statistically significant findings, it is beneficial to the body of knowledge on Gen Z student populations, and how leisure constraints interact with technology usage. Traditionally, leisure constraints analyzes constraints, and the negotiation of those constraints, before determining participation (Jackson et al., 1993). This research intentionally left out negotiation in order to focus solely on the effect technology has

on the perception of leisure constraints. While this survey did not meet its 351 participants for a .95 confidence level, the data collected can still be utilized to better understand how Gen Z interacts with campus recreation centers. For this Gen Z sample, constraints were not found to be significantly different between technology groups, but each group's constraints were fairly similar in their reported means. Meaning that although it did not reach a significant difference, constraints were still prevalent among all Gen Z students surveyed. Among the descriptive statistics ran, the mean was ran for reach constraint parameter before dividing the data into technology groups. The reported means showed the level of interpersonal constraints being highest at 2.53, followed by intrapersonal at 2.23 and structural at 1.88. This potentially agrees with research indicating Gen Z's struggle with emotional and social well-being (APA, 2018; Rosen et al., 2015; Steers et al., 2014; Seemiller & Grace, 2017; Turner, 2015; Twenge, 2015). Though not included in the findings of the study, these statistics gain importance when considering Gen Z's recreation trends, and how higher education and student affairs professionals combat them moving forward.

Another interesting piece to note in the demographics is the low participation for e-sports through campus recreation at only a 2% participation rate. As universities continue to adapt to Gen Z, e-sport programs are growing across the nation affording students scholarships to participate. Gen Z's technological infatuation and hours spent engaged with technology (Rosen et al., 2014; Silverstone & Teatum, 2011; Turner, 2015) should potentially translate to a higher level in e-sport participation. More research should be conducted if e-sports effectively satiates Gen Z's need for technology in recreation.

Technology is ever present in Gen Z's world, and it will continue to become more ingrained in the student experience (Palley, 2012; Seemiller & Grace, 2016, Turner, 2015). Research on how technology affects the field of campus recreation is imperative to engage students in meaningful development activities (Bell et al., 2014; Forrester, 2014; LaFave, 2016;

Miller, 2011; Smith 2018). Though these results did not comeback significant, the data still suggests that technology impacts student's perception of leisure constraints. Future research questions focused on technology's impact on campus recreation should be evaluated to establish significant findings, and contribute to the growing body of knowledge surrounding Gen Z's college experience.

Implications

Though the results of the current study did not return statistical significance, the data collected can still be used for evaluating Gen Z student populations. The Mann-Whitney U test analyzed the ranked means for each leisure constraint category among the three technology usage groups. Through this testing, the data indicated that the high technology usage group consistently had a higher ranked mean in each category, though the data was not significant. This data potentially agrees with research showing high technology usage increases the perception of leisure constraints, or that an overuse of technology leaves a student feeling more constraints when considering campus recreation participation (Soyer, 2019). These results initiate the conversation that Gen Z's technology usage can potentially negatively affect their campus recreation participation. Gen Z has documented issues of social, emotional, and physical well-being (APA, 2018; Chakravarthy & Booth, 2003; Rosen et al., 2015; Seemiller & Grace, 2017), that campus recreation seemingly alleviates (Miller, 2011; Smith 2018; Bell et al., 2014; LaFave, 2016), and these results suggest that high technology usage could contribute to constrained campus recreation participation. These results can be utilized by professionals in campus recreation by influencing programming and policy adjustments that better engages Gen Z students in meaningful developmental experiences. As Gen Z struggles with technology usage (Rosen et al., 2015; Seemiller & Grace, 2017; Turner, 2015), and these results showing high usage as an potential indicator of leisure constraints, drafting policy and implementing intentional development focused programming is essential.

Even though this study did not find significant differences between technology usage and overall leisure constraints, this study did show that constraints exist for all Gen Z students. As recreation professionals, the primary response to this type of data is conceptualizing the removal of identified constraints. To combat intrapersonal constraints in the field of campus recreation, supervisors could consider offering skill training programs, offering diverse recreation services, and partnering with the community recreation departments as well as other student affairs organizations (Bustam et al., 2011). For interpersonal constraints, supervisors could partner with community clubs or departments in order to expand programming opportunities and diversify services intentionally seeking and rectifying blind spots (Bustam et al., 2011). Lastly, for structural constraints, supervisors could partner with student affair organizations or recreation departments to raise awareness on facility convenience, as well as inform about the different locations, programs, and services (Bustam et al., 2011). Research driven recommendations constitute the primary step in alleviating campus recreation barriers faced by students and combatting blind spots in programming and policy.

This research intentionally partnered with the department of Housing and Residential Life in order to recognize the innate partnership that exists between housing and campus recreation. Student affairs focuses on the holistic development of students throughout their college experience, and this is more effectively achieved through the partnerships of large student organizations. Crenshaw (1991) proposed the theory of intersectionality for student identity development, and how different social aspects such as race, gender, and class intersect to influence a student's identity. This theory can be used in practice for student affairs be realizing that one organization may not have all the answers and resources to cater to a diverse Gen Z population. Intersecting different organizations together such as housing and campus recreation help to create a diversified student engagement platform that is prepared to properly initiate student development across campuses and universities.

Limitations

One of the primary limitations to this study was not meeting the 351 participants to maintain a .95 confidence level. The survey instead included 201 valid responses. Without meeting the response threshold, it is not possible to generalize the results to the surveyed population.

Another limitation is the self-report evaluation used in the questionnaire. Self-reporting is always a limitation as you have to trust participants can honestly and accurately answer the self-reporting questions. In regards to self-reporting, another limitation to consider is the lack of self-reporting for race identification. A self-reporting racial identity question could serve to better understand Gen Z populations and identify bi-racial and minoritized populations not observed in this study.

Research indicates that leisure constraints for on-campus students differ from off-campus students (Young et al., 2003). This study consisted of a sampling method of only residential students, therefore the constraints that were reported could be biased towards only on-campus students. This limits the results by not including both on and off campus students.

One of the largest limitations was the campus environment during data collection. Data collection commenced during the novel Coronavirus (COVID-19), which saw a drastic change in daily college operations. COVID-19 mandated all classes be held online to finish the semester, and students were encouraged to leave campus for alternative housing. Though this could be seen as a benefit to an online only survey, this also potentially limited the responses due to students not actively watching their school email, not living in on-campus housing, and not being engaged with campus life.

Additionally, this research took place at one public, land grant, mid-western, residential university. This limits the ability to generalize the results to large populations. Future research

should open up to more universities to gather more a generalizable, diverse set of data that is representative of the entire Gen Z population.

Future Research

Although this study did not reach significance, the data pointed to the possibility of technology increasing intrapersonal, interpersonal, and structural constraints. Future research should focus on collecting more participants from a larger sample. More participants would help this research be more generalizable to larger populations. Additionally, future research could focus on including more institutions with on and off-campus Gen Z students. Excluding off-campus students from this study could have potentially impacted the results and affected the generalizability of the findings.

The questionnaire for this study focused only on leisure constraints, and excluded negotiations of leisure constraints. Because LCT encapsulates both constraints and negotiations (Jackson et al., 1993), further research that focuses on both would help in adding to the body of knowledge surrounding the Gen Z student populations. Future research could also potentially look to ask different questions and different research modalities in order to gain significance surrounding Gen Z constraints and technology usage. Using a longer more comprehensive questionnaire on leisure constraints could help future research narrow down on perceived constraints for Gen Z campus recreation participation. Future research could also open up to questions of other recreation activities outside of a designated recreation center (i.e. game rooms, dorm rec rooms, outdoor basketball courts, etc.) in order to gain significance and learn more pertaining to Gen Z's recreation preferences. Additionally, more comprehensive questions regarding technology usage including hours, intended usage, types of technology, and social v. isolated use, could all benefit future research studies.

Conclusion

No significance was attained when questioning the effect of Gen Z's technology usage on perceived leisure constraints for campus recreation center participation. Although, Mann-Whitney U testing provided ranked means that indicated that the high technology usage group reported the highest level of constraints among each leisure constraint category. The results of this study should be used to inspire future research questions, and encourage further investigation into Gen Z's recreation preferences and constraints to participation. Additional research regarding the impact of Gen Z's technology usage on their college experience can set an avenue for research driven practice within campus recreation centers, student affairs, and among higher education professionals for Gen Z and the generations that follow.

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APPENDIX A

Dear Braxton,

Thank you for following up with me. I think the most efficient approach to accomplishing this goal is to survey our students that participate in RHA. I'm including our advisor to RHA, Fred Dillard, on this correspondence to see if he has any suggestions.

Stay tuned,

Leon

LEON McCLINTON, JR., PH.D.
DIRECTOR OF HOUSING & RESIDENTIAL LIFE
Department of Housing & Residential LIfe
405.744.5592 • 100 Iba Hall • reslife.okstate.edu

OKLAHOMA STATE UNIVERSITY

Hi Braxton-

I think emailing our students would honestly we the best way to do it. I can have a list ran of freshman student in housing with their emails and send it your way. Just let me know if this works. You can just send me an email when you want this list, so that we have the most up-to-date roster of who is actually living on campus.

FRED DILLARD, M.S.
COORDINATOR OF STUDENT LEADERSHIP
Department of Housing and Residential Life
405.744.6929 • 001A Stout Hall • reslife.okstate.edu

OKLAHOMA STATE UNIVERSITY

APPENDIX B

Dear Oklahoma State Student,

My name is Braxton Goins and I am a Masters student from the School of Kinesiology, Applied Health, and Recreation at Oklahoma State University. I am writing to invite you to participate in my research study about participation in our campus recreation facility, the Colvin Center. You're eligible to be in this study because you are a freshman living on campus. After receiving approval from the Department of Housing and Residential Life, I obtained your contact information to request your participation. Your agreeance to participate in this study is based on your completion of the survey. The anonymous survey takes a brief 5-10 minutes that consists of questions in regards to your demographics, technology usage, and campus recreation usage. I will then use the information to analyze the barriers students are experiencing that is preventing participation in campus recreation facilities.

Please recognize that your participation is completely voluntary and there are no incentives associated with your participation. At any time you can choose to be in the study or not, but your feedback will improve the engagement services of our University. If you'd like to participate please follow the link attached to this email and complete the survey by **April 29th, 2020.**

When completing this survey, please consider Fall 2020 before the COVID-19 pandemic altered daily on-campus life.

Follow this link to the Survey:
Take the Survey

Or copy and paste the URL below into your internet browser:
https://okstatecoe.az1.qualtrics.com/jfe/preview/SV_0NDl9y7LvZ8Pysd?Q_CHL=preview

Please contact us with any questions you may have. We look forward to your support!

Sincerely,

Braxton Goins (contact information: Braxton.goins@okstate.edu)
Masters Student, Oklahoma State University

Taryn Price, PhD, ATC (Advisor contact information: taryn.price@okstate.edu)

Assistant Professor, Oklahoma State University

If you have questions about your rights as a participant please contact the Oklahoma State University IRB office at irb@okstate.edu or 405.744.3377

APPENDIX C

Dear Oklahoma State Student,

My name is Braxton Goins and I am a Masters student from the School of Kinesiology, Applied Health, and Recreation at Oklahoma State University. I am sending a reminder email to participate in this research regarding your campus recreation participation at the Colvin Center. The anonymous survey takes a brief 5-10 minutes that consists of questions in regards to your demographics, technology usage, and campus recreation usage. The information will be used to analyze the barriers students are experiencing that is preventing participation in campus recreation facilities.

Please recognize that your participation is completely voluntary and there are no incentives associated with your participation. At any time you can choose to be in the study or not, but your feedback will improve the engagement services of our University. If you'd like to participate please follow the link attached to this email and complete the survey by **April, 29th 2020.**

If you have already completed this survey please disregard this email and we appreciate your support!

Follow this link to the Survey:
Take the Survey

Or copy and paste the URL below into your internet browser:
https://okstatecoe.az1.qualtrics.com/jfe/preview/SV_0NDl9y7LvZ8Pysd?Q_CHL=preview

Please contact us with any questions you may have. We look forward to your support!

Sincerely,

Braxton Goins (contact information: Braxton.goins@okstate.edu)
Masters Student, Oklahoma State University

Taryn Price, PhD, ATC (Advisor contact information: taryn.price@okstate.edu)
Assistant Professor, Oklahoma State University

If you have questions about your rights as a participant please contact the Oklahoma State University IRB office at irb@okstate.edu or 405.744.3377

APPENDIX D

SAMPLE SURVEY

The purpose of this survey is to gather information on the Gen Z student population and their Campus Recreation Center use. Consider your use of the Colvin Recreation Center while taking this survey.

1. Age:
   a. 18
   b. 19
   c. 20
   d. 21+

2. Classification:
   a. Freshman
   b. Sophomore
   c. Junior
   d. Senior
   e. Graduate

3. Gender:
   a. Male
   b. Female
   c. Transgender
   d. Other

4. Race:
   a. White
   b. Black or African American
   c. American Indians and Alaska Native
   d. Native Hawaiian and other Pacific Islander
   e. Asian
   f. Hispanic or Latino
   g. Other/Not Listed

5. Average number of visits per week:
   a. 0 visits
   b. 1-2 visits
   c. 3-4 visits
   d. 5+ visits

6. Do you visit as often as you would like?
   a. Yes
   b. No

7. Optimal number of visits per week:
   a. 0 visits
   b. 1-2 visits
   c. 3-4 visits
   d. 5+ visits

8. On average, how many hours do you spend engaged with technology daily? (Cellphone, TV, Video Games, Personal Computers, etc.)
    a. 1-4 hours
    b. 4-7 hours
    c. 7+ hours

9. What services do you most utilize in the Colvin Recreation Center? (Select all that apply)
    a. Open gym
    b. Free weights
    c. Cardio equipment (Treadmills, exercise bikes, indoor track, etc.)
    d. Outdoor adventure
    e. Golf
    f. Group Fitness (Yoga, Dance, F45, etc.)
    g. Personal Training
    h. Aquatics
    i. Racquetball
    j. Soccer/Futsal
    k. Intramurals
    l. Performance Studio
    m. E-Sports
    n. Other: _____

The next portion of the survey focuses on the leisure constraints for campus recreation center participation. Please rate your agreement to the following statements on a Likert scale with a range of 1 to 5: 1=strongly disagree, 2=disagree, 3=neither agree nor disagree, 4=agree, 5=strongly agree.

Leisure Constraints Survey

TIME	**1 Strongly Disagree → Strongly Agree 5**
1. I do not have enough time to visit the campus recreation center	1 2 3 4 5

2. I would visit the campus recreation center if I didn't have so many other social obligations	1 5	2	3	4
Management				
1. I don't feel welcome at the campus recreation center	1 5	2	3	4
2. Places to be physically active are too crowded	1 5	2	3	4
3. My campus recreation center does not offer the activities I want.	1 5	2	3	4
4. The campus recreation center is closed when I want to visit.	1 5	2	3	4
5. The maintenance of the recreation center is poor.	1 5	2	3	4
Social Support				
1. I have no one to visit the campus recreation center with.	1 5	2	3	4
2. I lack support for visiting the campus recreation center from friends and family.	1 5	2	3	4
3. My friends don't have time to visit the campus recreation center.	1 5	2	3	4
4. My friends' skill levels are different than mine	1 5	2	3	4
5. I do not attend the campus recreation center because my friends prefer other activities.	1 5	2	3	4
Self-Efficacy				
1. I do not have enough physical energy to visit the campus recreation center.	1 5	2	3	4
2. I am intimidated by the campus recreation center environment.	1 5	2	3	4
3. I don't like to attend the campus recreation center.	1 5	2	3	4
4. I feel self-conscious about my body when I visit the campus recreation center	1 5	2	3	4
5. I am not in good enough shape to visit the campus recreation center.	1 5	2	3	4
Transportation				
1. The campus recreation center is too far away from my home.	1 5	2	3	4
2. I do not have adequate transportation to the campus recreation center.	1 5	2	3	4
Safe Environment				

1. I do not have enough information about the campus recreation center.	1 5	2	3	4
2. I fear that others might hurt me at the campus recreation center.	1 5	2	3	4
3. I think I might get injured at the campus recreation center.	1 5	2	3	4
4. My cultural beliefs restrict me from attending the campus recreation center.	1 5	2	3	4
5. I feel prejudice based on my race, ethnicity, and/or gender when I attend the campus recreation center.	1 5	2	3	4
6. I might experience conflict with other participants when I attend the campus recreation center.	1 5	2	3	4

VITA

Braxton Goins

Candidate for the Degree of

Master of Science

Thesis: GENERATION Z'S LEISURE CONSTRAINTS FOR CAMPUS RECREATION: TECHNOLOGY'S INFLUENCE ON CONSTRAINTS

Major Field: Leisure Studies

Biographical:

Education:

Completed the requirements for the Master of Science in Leisure Studies at Oklahoma State University, Stillwater, Oklahoma July, 2020.

Completed the requirements for the Bachelor of Science in Kinesiology at University of Central Oklahoma, Edmond, Oklahoma in 2017.

Experience:

- Splash Park Manager, Tulsa County Parks and Recreation, Tulsa, OK, June 2020 – Present.
- Teaching Assistant, Department of Kinesiology, Applied Health, and Recreation, Oklahoma State University, July 2018 – May 2020.
- Recreation Assistant, Broken Arrow Parks and Recreation, Broken Arrow, OK, Jan 2018 – Aug 2018.

Professional Memberships:

- ACSM
- NIRSA