EXAMINING THE PERCEIVED BENEFITS OF INTRAMURAL SPORTS PARTICIPATION OF UNDERGRADUATE STUDENTS AT OKLAHOMA STATE UNIVERSITY

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Abstract: The purpose of the study was to examine the perceived benefits of intramural sports participation for full-time undergraduate students at Oklahoma State University. The survey instrument used for this study was the Artinger et al. (2006) Social Benefits Questionnaire. Of the 220 participants, 59.1% were male (n=130) and 40.5% were female (n=89) (with one student indicating other) while 64.5% lived off-campus (n=142) and 34.5% lived on-campus in spring of 2016 (n=76). An independent sample *t*-test revealed there was a significant difference in the perceived benefits between male and female students, $t(216) = -2.96$, $p<0.01$, with female students reporting higher mean scores for the social benefits statements than male students. The sum of the female students (n = 89) mean scores was 90.16 (out of a possible 115, SD = 10.712) and the sum of the male students (n=130) mean scores was 85.92 (out of a possible 115, SD = 10.124). An independent sample *t*-test between male students and female students revealed there were significant differences for six of the social benefits statements. An independent sample *t*-test showed there was a moderate significant difference between students who lived on-campus and students who lived off-campus, $t(215) = -2.09$, $p<0.05$, with students who lived on-campus reporting higher mean scores. An independent sample *t*-test between students who lived on-campus and students who lived off-campus revealed that there was a significant difference for one of the social benefits statements, "Improves my leadership abilities" $t(216) = 1.442$, $p <0.05$. A two-way ANOVA was conducted to determine significant differences in perceived benefits between female students who lived on-campus and female students who lived off-campus. Twelve social benefits statements were considered statistically significant at the $p <.05$ level or lower. A two-way ANOVA did not report any statistically significant differences between male students who lived on-campus and male students who lived off-campus.

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CHAPTER I

INTRODUCTION

Colleges and universities have experienced significant growth in the amount of campus space and resources dedicated to campus recreation programs [intramural sports] (Huesman, Brown, Lee, Kellogg, & Radcliffe, 2007). The growing popularity for campus recreational facilities among college students has been well documented (Bryant, Banta, & Bradley, 1995; Harrold, 2006). Usage rates have been consistently reported as having served between seventy to ninety-five percent of the student population (Bryant et al., 1995; University of Texas, 2007). Student participation rates specific to intramural sports are not documented nationally (NIRSA, 2016). However, since 1950 when National Intramural-Recreational Sports Association (NIRSA) was instituted, its membership has grown to be comprised of more than 4,500 dedicated professionals serving an estimated 8.1 million college students (NIRSA, 2016).

The quality of recreational programming, which includes intramural sports, has proven to influence the choice of college among prospective students (Lindsey &

Sessoms, 2006; Forrester, 2015). College admissions directors now highlight recreational service facilities during campus tours to potential students as a recruiting tool (Kerr & Downs Research, 2002). Students expect that opportunities for fitness and sports will be available on college campuses (Huesman et al., 2007). New student orientation programs are including campus recreation programs [intramural sports] and facilities in the welcome week activities for new students (Kerr & Downs Research, 2002). This demonstrates the growing need for strong intramural sports programming on college campuses (Bryant et al., 1995; Forrester, 2015).

In addition to recruitment, retention is another key attribute to sustain and grow a college (Kampf & Teske, 2013). According to the National Center for Education Statistics (NCES) (2016), the six-year graduation rate for first-time, full-time undergraduate students who began pursuing a bachelor's degree at a four-year degree-granting institution in fall 2008 was 60%. Between 2009 and 2014, "the overall 6-year graduation rate for first-time, full-time students who began seeking an undergraduate degree at a 4-year degree-granting institutions increased by 2 percentage points, from 58 percent to 60 percent" (NCES, 2016, para 5). Tinto (1987) indicates approximately 75% of students who leave college do so within the first two years. College administrators consider these retention rates as low (Tinto, 2006) and seek ways to improve (Bushong, 2009; Knapp, Kelly-Reid & Ginder, 2012). Tinto (2006) argues that, while many institutions are focusing on the theory of retention, not enough resources are being allocated nor is enough action being taken.

As Frauman (2005) indicates, retention can be linked to participation in extracurricular activities, including those offered through campus recreation centers.

"The greater the student's degree of involvement, the greater the learning and personal development" (Astin, 1999a, p. 588). Research indicates that recreational sports [intramural sports] appear to have positive outcomes on student retention and satisfaction (Downs, 2003; Haines, 2001; Henchy, 2011; Lindsey & Sessoms, 2006). Intramural sports and campus recreation programs play a vital role in providing numerous activities for involvement (Elkins, Forrester, & Noel-Elkins, 2011; Miller, 2011).

The influence of involvement was studied by Henchy (2011) who found that 81% of students surveyed indicated that participating in campus recreation programming helped them feel more at home and comfortable at the college. More specifically to intramural sports, Hall (2006) found that students who participated in intramural sports programs felt a sense of community within the institution. "These students indicated that they persisted in part due to their involvement in campus recreation activities. Participating in the program allowed them to develop friendships and feel part of the larger community" (Hall, 2006, p. 44). Downs' (2003) study found that students who participated in campus recreation programs [intramural sports] were more likely to report feeling an overall positive satisfaction at college versus students who did not participate.

Statement of the Problem

As intramural sports programs continue to grow on college campuses, it is imperative to understand the benefits associated with student participation in these programs, especially as "institutions are being called upon to provide evidence of the success of their various operations" (Schuh & Associates, 2009, p. 5). College administrators experience tremendous pressure because of the economic situation of college budgets (De Pillis & De Pillis, 2001). The economic stress and ongoing funding

reductions have "increased the pressure to justify the mere existence of certain programs, facilities, and positions" (NIRSA, 2013a, p. 115). Intramural sports program coordinators and directors are required to validate the notion that these programs provide vital opportunities for students to learn outside of the classroom and essentially "contribute to students' holistic development" (NIRSA, 2013a, p. 105). "It is no longer enough for institutions to measure the effectiveness of what they do… They must now be purposeful, aligning departmental goals with institutional goals, and institutional goals with state and federal goals" (Mallory & Clement, 2009, p. 107).

Administrators are required to reevaluate programs and services to maximize efficient spending and minimize the impact of budget cuts. As severe budget cuts have been unavoidable, campus recreation program directors and administrators have been forced to reprioritize goals and agendas (De Pillis & De Pillis, 2001). College administrators must strive for accountability (Lock & Lorenz, 2007). To achieve this superior goal, decision-makers have required a greater justification of resources (Mallory & Clement, 2009). The Council for Advancement of Standards in Higher Education (2008) emphasized the importance of identifying student learning, performance, and outcome. The need to justify a program's contribution to student learning and development has led to an increase in demonstrated performance (Cooper, Flood, & Gardner, 2009). It has become increasingly evident that intramural sports programs must justify funding and resources based on learning outcomes and student benefits as opposed to participation numbers (Mallory & Clement, 2009). College administrators must research and understand the benefits associated with participating in programs such as intramural sports (Artinger et al., 2006).

Campus recreational and intramural sports programs have begun to substantiate their efforts on how these programs develop students physically and holistically (Mull, Bayless, & Jamieson, 1997). The quality of student life and student satisfaction are top priorities of higher education administrators today, and "given the claim that a rec program has a positive effect on the quality of life of its participants, the recreation programs, services, and facilities offered to students should receive high priority in terms of funding and support" (Lewis, Barcelona, & Jones, 2001, p. 58).

In his Carnegie Commission Report, *Campus Life: In Search of Community*, Ernest Boyer (1990) indicates that throughout the history of American higher education, greater attention and emphasis have been dedicated to the concept of student life outside the classroom. Boyer (1987) states the importance of out-of-classroom experiences, concluding that "the effectiveness of the undergraduate experience relates to the quality of campus life and is directly linked to the time students spend on campus and the quality of their involvement in activities" (p. 180). For years, the field of intramural sports programs has advocated the benefits of participation in their activities, programs, and services. Until recently, "the evidence to support such claims is often anecdotal or rooted in the general experiences of practitioners in the field" (Barcelona, 2002, p. 1). However, there is a growing body of research and literature that is beginning to substantiate these claims (Artinger et al., 2006; Belch, Gebel, & Maas, 2001; Bryant et al., 1995; Collins, Valerius, King, & Graham, 2001; Downs, 2003; Henchy, 2011; Sweeney & Barcelona, 2012).

Rationale for the Study

Sweeney and Barcelona (2012) conducted and published *An Integrated Review of Published Research in the Recreational Sports Journal, 1998 – 2010.* The purpose of their study was to identify the themes and trends in recreational sports [intramural sports] research since the inception of the *Recreational Sports Journal* in 1998. One hundred and fifty-four manuscripts were analyzed. The majority of the articles (n = 85, 55.1%) were categorized as non-empirical, while 69 articles (44.8%) were categorized as empirical. Almost half (n = 34, 49.2%) of the 69 empirical articles pertained to campus recreation in general. Specific program areas represented in the published research included facilities (n = 13, 18.8%), intramural sports (n = 12, 17.3%), fitness (n = 12, 17.3%), sports clubs (n = 6, 8.6%), aquatics (n = 5, 7.2%), and outdoor recreation (n = 3, 4.3%). Table 1.1 itemizes the program areas of focus for publications analyzed in this integrated review.

Table 1.1. Program area focus (Sweeney & Barcelona, 2012)

Program area	N	%
General campus recreation	34	49.2
Facilities	13	18.8
Intramural sports	12	17.3
Fitness	12	17.3
Sport clubs	6	8.6
Instructional programs	5	7.2
Aquatics	5	7.2
Academics/curriculum	3	4.3
Outdoor recreation	3	4.3
Family and community programs	2	2.8

The major research themes identified by Sweeney and Barcelona (2012) indicated that participation and constraints (n = 52, 80.0%) was the primary area of study by empirical research. Administration (n = 26, 40.0%) and benefits and outcomes (n = 25,

38.0%) were two other key categories that emerged from the articles published. The benefits and outcomes category focused on campus recreation activities in general, not specific to intramural sports or any other program.

Table 1.2. Topic area of study (Sweeney & Barcelona, 2012)

Area of study	N	%
Participation and constraints	52	80
Administration	26	40
Benefits/Outcomes	25	38
Research/program evaluation	16	24
Professional development	15	23
Health and wellness	14	22
Facilities, equipment, and technology	14	22
Marketing	13	20
Risk behavior	8	12
Sociodemographic differences	7	10

Since the conclusion of Sweeney and Barcelona's (2012) integrative review, 13 articles have been published in the *Recreation Sports Journal* from 2011 – 2015 with a specific focus on intramural sports. This research focused on injury rates in intramural sports (McElveen, North, Rossow, & Cattell, 2014), intramural sports marketing programs (Ciuffo, Johnson, & Tracy, 2014), and examining intrinsic motivations for participating in intramural sports (Cooper, Schuett, & Phillips, 2012). Specific intramural sports sample groups included female-only basketball league participants (Baghurst, Tapps, & Judy, 2014), first-time college students (McElveen & Rossow, 2014), faculty and staff golf league participants (Hill & Jones, 2014), and international and non-international participants (Shifman, Moss, D'Andrade, Eichel, & Forrester, 2012).

Furthermore, research studies on perceived benefits have been conducted with a general campus recreation focus (Forrester, 2015; Henchy, 2013; Lower, Turner, &

Peterson, 2013). There have been a few recent articles published on outcomes of intramural sports participation (Webb & Forrester, 2015) and the relationship between intramural sports and a student's sense of community (Phipps, Cooper, Shores, Williams, & Mize, 2015). There have only been a few studies that focused on the benefits of intramural sports participation for students living on-campus and off-campus (Artinger et al., 2006). This gap in the body of research knowledge relating to perceived benefits of intramural sports participation for students living on-campus and off-campus in relation to gender highlighted the need for this specific study.

Purpose

The purpose of this study is to examine the perceived benefits of intramural sports participation for full-time undergraduate students at Oklahoma State University (OSU). More specifically, the research questions were:

(1) What benefits do full-time OSU undergraduate students perceive they attain while participating in intramural sports programs?

(2) Are there differences in the perceived benefits based on demographics for those who participate in intramural sports programs while living on-campus and those who participate in intramural sports programs while living off-campus?

Definitions

Campus recreation is the wide variety of facilities, programs, and experiences that provide opportunities for students, faculty, and staff to engage in recreation and wellness opportunities (NIRSA, 2008).

Extracurricular activity is student participation that "provides opportunities for advancing adolescent interpersonal competence, inspiring challenging life goals, and promoting educational success" (Mahoney, Cairns, & Farmer, 2003, p. 410).

IMLeagues is a web-based scheduling program that is designed to assist recreation leaders in league and tournament play and allowing a social component to engage participants (IMLeagues, 2016).

Individual development, or the growth of self-actualization, as identified by Maslow (1962), refers to the need for individual growth that is present throughout a person's lifetime as an individual strives to become his/her best self.

Intramural sports is an activity in which teams or individuals compete with other teams or individuals from the same institution (NIRSA, 2013a).

National Intramural-Recreational Sports Association (NIRSA) is defined as an organization that supports leaders in collegiate recreation through fostering lifelong habits of wellbeing, leadership, teamwork, dedication, and respect (NIRSA, 2016).

Participant is any person participating within an intramural sports activity, whether as a player or a captain (NIRSA, 2008).

Perceived benefits refer to the perception of the positive consequences that are a result of a specific action or behavior by an individual (Gellman & Turner, 2013).

Retention in higher education "refers to the ability of an institution to keep students enrolled until graduation" (Powell, 2013, p. 3).

Social integration, according to Young (1996), should be a core value on a college campus "where people grow by means of meaningful relationships" (p. 90).

Student living off – campus refers to any student residing in housing facilities that is owned or controlled by someone other than the institution at the time of his/her participation in intramural sports (Chickering, 1974).

Student living on – campus refers to any student residing in a student housing facility that is owned or controlled by the institution, or is located on property that is owned or controlled by the institution at the time of his/her participation in intramural sports (Chickering, 1974).

CHAPTER II

REVIEW OF THE LITERATURE

As indicated in previous research studies, students who participate in intramural sports programs are more likely to experience numerous social and individual benefits (Artinger et al., 2006; Belch et al., 2011; Henchy, 2011; Forrester, 2015; Rothwell & Theodore, 2006). College administrators are placing greater emphasis on the development of intramural sports programs due to their ability to increase student retention, provide a sense of community, and provide essential benefits to students (Henchy, 2011). Students choosing to participate in intramural sports programs are more likely to "demonstrate a sense of belonging in the community, have more interactions with peers, have increased emotional health, and increased leadership potential at the university" (Moffitt, 2010, p. 31). These programs "offer the student an opportunity to develop and enhance his or her physical, mental, or emotional capacity" (Collins et al., 2001, p. 38). One of the primary goals of this research study is to add to the body of

research that has been developed with regard to the benefits of participation in intramural sports programs.

This chapter reviews the literature pertaining to the benefits of participating in intramural sports programs. Topics in this review of the literature include the history of intramural sports programs, Astin's (1999b) Theory of Involvement and Tinto's (1975) Theory of Integration, and the perceived benefits of participation in intramural sports programs. Research results comparing students who live on-campus versus off-campus is presented as well as research regarding gender and perceived benefits of participation in intramural sports programs.

History of Intramural Sports

From its inception, a key focus of intramural sports has been providing meaningful programs based on students' needs and wants (NIRSA, 2013a). Literature shows that intramural sports programs on campus began as a student-initiated need in which they could participate during their leisure time (Stewart, 1992). These activities and contests were not organized in any manner, including varsity athletics, nor were any sports encouraged by administrators on campuses (Means, 1952; NIRSA, 2008; Webster, 1965).

All sports were considered by college administrators as a form of leisure play (NIRSA, 2008). When the first American institutions of higher education were founded, the primary goals of administrators focused on their students gaining a liberal education and being prepared to enter into elite professions (NIRSA, 2008). At this time, athletic "play was discouraged" (NIRSA, 2008, p. 22). In fact, the trustees of Princeton University invoked a severe penalty for "any students caught playing ball in certain areas

of campus" and even objected to games with sticks and balls because these activities were "too low and unbecoming to gentlemen students" (NIRSA, 2008, p. 10). However, despite the pressure of administrators for students to disengage in these forms of activities, varsity athletics eventually were organized (NIRSA, 2008).

Student demand for informal sports continued. Varsity athletics "attracted too many students who could not, would not, or simply did not participate in intercollegiate athletics" (NIRSA, 2008, p. 22). In the late 19th century, a new emphasis on intramural sports began when fraternities and other campus organizations attempted to organize contests and games for students who did not compete on a varsity team (Stewart, 1992). Eventually, the demand by students to "play… sports for the sake of participation" was recognized by college administrators (NIRSA, 2008, p. 24). The earliest intramural programs began in the late 1800s and are tied to Cornell University (Lewis, Jones, Lamke, & Dunn, 1998; NIRSA, 2008). The first documented intramural activity was a baseball game between the freshmen and sophomore classes at Princeton University in 1857 (Hyatt, 1977).

Recognizing the need for intramural sports, the question arose among college administrators of "who was responsible for the development of the purely recreational programs" on college campuses (NIRSA, 2008, p. 25). The University of Michigan and Ohio State University in 1913 were among the first to appoint a faculty member to oversee the programs (Colgate, 1978). The first campus recreation facility opened in 1928 at the University of Michigan with the goal of providing non-varsity club sports, intramural activities, and physical activities for young men (Taylor, Canning, Brailsford, & Rokosz, 2003). Colleges and universities followed this model when designing their

campus recreation programs [intramural sports] for more than 30 years (Taylor et al., 2003). The majority of the funding for these types of facilities was generated from the general funds of the college and the athletic department (Taylor et al., 2003).

A new era of campus intramural sports programs began in the 1960s and 1970s as campus recreational facilities were built geographically closer to student housing and were redesigned to focus on multipurpose functions including classrooms, offices, and research labs in addition to the recreational facility services (Taylor et al., 2003). At this time, female students were allowed to begin participating in intramural sports and utilizing these facilities (NIRSA, 2008). Modest student fees began supporting the construction of new facilities (Taylor et al., 2003). By the 1980s and 1990s, an incredible growth spurred recreational facilities (Taylor et al., 2003). These facilities became an architectural showcase on campuses (Taylor et al., 2003). Banta (1991) reported that campus recreation facilities and programs served as recruiting highlights, enhanced satisfaction with collegiate experiences, and resulted in positive contributions to an institution's retention rates.

Campus recreation programs, including intramural sports programs, have evolved into independent administrative units and departments (Turman & Hendel, 2004). Specifically regarding the role of intramural programs, Smith (1991) stated that these programs are "a vital, integrated, necessary part of higher education and the educational development of young adults" (p. 7). Furthermore, Smith (1991) argues that "intramural-recreational sports programs will continue to flourish … because of their critical role with regard to the retention of students and the need to educate students regarding the proper use of leisure time" (p. 7). This research supports the assertion that participating in

campus recreation programs [intramural sports] will increase the student's commitment to the institution and positively affect his/her academic performance (Smith, 1991).

The intramural sports programs that are prevalent on college campuses today have grown out of the need to best represent and serve college students (Belch et al., 2001; NIRSA, 2008). Today these programs exist to provide a form of recreational enjoyment for college students ranging from highly competitive activities to simple leisurely ones (NIRSA, 2008). Stewart (1992) acknowledges that the intramural philosophy has grown from basic physical exercise and competition to now include objectives, which may contribute to many of the greater goals within higher education. Intramural sports programs play an important role in the life of college students (Smith, 1991). Bryant et al. (1995) reported that 95% of the students they surveyed for their research project had participated in some type of recreational activity on campus. This research study is based on the underlying principle that intramural sports programs play a key role in the lives of college students as well as a vital role on college campuses.

Theories of Involvement and Integration

The two primary developmental social theories, which include an empirical background supporting the benefits of intramural sports participation, are Astin's (1999b) Theory of Involvement and Tinto's (1993) Theory of Integration. Astin's (1999b) Theory of Involvement is key to the theoretical foundation of this study in its hypothesis that a student's environment provides a strong influence on his/her development as well as his/her maturation into adulthood. Additionally, Tinto's (1993) Theory of Integration supports the claim that participation in intramural sports programs has a positive effect on a student's sense of social belonging on a college campus.

Astin's Theory of Involvement

Astin (1999b) argues that "the most precious institutional resource may be student time" (p. 522). How a student chooses to fill his/her time provides a clear understanding of involvement. According to Astin (1975), "it is not so much what the individual thinks or feels, but what the individual does, how he or she behaves, that defines, and identifies involvement" (p. 298). Astin's Theory of Involvement developed from a longitudinal study that began in 1975, examined college dropouts and the college environment in order to discover factors that influenced students' persistence in college (Astin, 1999b). The results of the study suggested that environmental factors, such as on-campus residence, participation in sports, and on-campus part-time jobs, influence the likelihood for a student to persist in college (Astin, 1999b). Astin (1999b) reported that "it is obvious that students who live in residence halls have more time and opportunity to get involved in all aspects of campus live" (p. 523).

Higher student involvement increases the potential impact a program can have on individual students (Astin, 1999b). Astin's (1999b) theory contends that the greater the student's involvement in activities at the institution, the greater the student's learning and personal development will be during the college years. This theory characterizes involvement as "the amount of physical and psychological energy that the student devotes to the academic experience" (Astin, 1999b, p. 518). Astin (1999b) identifies academic experiences for a highly involved student as one who "devotes considerable energy to studying, spends much time on campus, participates actively in student organizations, and interacts frequently with faculty members and other students" (p. 518).

Astin's (1999b) theory defines involvement in terms of both quantitative and qualitative. Quantitative involvement refers to the amount of time spent participating in a specific activity. Qualitative involvement refers to the level of investment, commitment, and attention given during participation in an activity. Devoting personal time and commitment to extracurricular activities contributes to student success (Astin, 1999b). Further research shows that students who participate in extracurricular activities, which includes intramural sports, tend to have higher academic standards (Astin, 1999b). Students who choose to participate are also more likely to interact frequently with faculty members and choose to devote more time to studying than their lower achieving counterparts (Astin, 1999b).

In *Achieving Educational Excellence*, Astin (1985) suggests that students are primarily interested in the "existential benefits" of the college experience and the "subjective satisfaction associated with...extracurricular and academic involvement, recreational activities" (p. 21). Astin (1984) states that any program (whether academic or co-curricular) must provide students with motivation to commit both personal time and effort. Furthermore, Astin (1993) claims that student participation in extracurricular activities [intramural sports] is directly related to the overall satisfaction with their college experience. According to Astin's (1999b) theory, "athletic involvement is also associated with satisfaction in four areas: the institutions' academic reputation, the intellectual environment, student friendships, and institutional administration" (p. 525).

The Higher Education Research Institute conducted a longitudinal study measuring 82 student outcomes with a focus on cognitive and affective development (Astin, 1999a). This study provided essential knowledge to further the research on

student development. The subjects were comprised of a national sample. A pretest was administered to the subjects upon entrance to college and a posttest was administered to the same subjects four years after the pretest. Researchers "controlled for more than 140 characteristics of the entering students in order to examine the possible effects of some 190 environmental characteristics, including 57 different forms of student involvement" (p. 590). Results of this study indicated a clear link between student involvement and enhanced student cognitive and affective development. The study identified academic involvement, interaction with faculty members, and involvement with student peer groups as the most effective forms of involvement (Astin, 1999a).

Furthermore, Astin argues that students living within on-campus housing options are more likely to be fully vested in the campus community than their off-campus housing options counterparts. Astin suggests that two main reasons for increased involvement among on-campus residential students are, first, the likelihood of interacting with other students more frequently and, second, the mere convenience on-campus activities provide. This study concluded that further research in this area needed to be addressed to better understand the various forms of involvement including interaction with faculty members, participation in campus recreation, and other student campus activities (Astin, 1999b).

Numerous academic studies have incorporated Astin's (1999b) Theory of Involvement. Sweeney and Barcelona (2012) identified that Astin's Theory of Involvement was the most often utilized theory in published articles between 1998-2010 in the *Recreational Sports Journal.* However, this current review of the literature found that limited studies have used Astin's (1999b) Theory of Involvement specifically in

intramural sports programs studies. Integrating Astin's (1999b) Theory of Involvement with perceived benefits associated with participating in intramural sports programs may corroborate the significance of such programs for benefits of college students.

Tinto's Theory of Integration

Tinto's (1975) Theory of Integration contends that students who are socially integrated within the college community increase their personal commitment to the institution and are more likely to graduate from the institution. Tinto's (1975) model theorizes that in order to create a sense of community on a college campus, administrators need to help students feel a sense of belonging to the institution and to encourage individual growth. This model identifies the importance of not only the academic aspect of college but also the social aspects of a student's life (Tinto, 1975).

Tinto (1987) argued that "in the social realm of campus life, orientation programs, residential life activities, and extracurricular activities [intramural sports programs] among many others are used to break down the sometimes overwhelming sense of isolation that newcomers to large campuses commonly experience" (p. 199). Furthermore, Tinto (1987) contends that contact among peers may be especially important for new students to an institution "not only because it helps cement personal affiliations which tie the new student into the fabric of student culture, but also because it enables the newcomer to acquire useful information as to the informal character of institutional life" (p. 165). His theory also proposes that the degree of success a student has in his/her pursuit of higher education is influenced by "the quality of individual interactions with other members of the institution" (p. 45).

"The more frequent and rewarding interactions are between students and other members of the institution, the more likely are individuals to stay" (Tinto, 1993, p. 166). Student interactive programs [such as intramural sports programs] should "strive to promote both student learning and retention through actively involving students in some cooperative/collaborative fashion" (p. 169). More recent research by Kovac and Beck (1997) concluded that involvement in academic and extracurricular activities assist students with individual integration into campus life through peer interaction and cooperative learning.

Tinto's (1993) theory is essential for both students, who feel connected to their institution and persist to graduation, and for the institution, which benefits from more active students and higher graduation rates. Tinto (1993) contends that students who are invested in campus recreation programs [intramural sports] are more likely to continue their education, especially at the specific institution. Campus recreation programs play a vital role in providing opportunities for student interactions (Belch et al., 2011). Belch, Gebel, and Maas (2001) support Tinto's theory that extracurricular activities [intramural sports programs] provide viable opportunities for student interactions, which lead to a stronger development of social skills, personal integration into the college community, and higher retention rates among students who choose to participate in these activities and programs.

While Tinto's (1975) model has been supported by many, attacked by some, and even revised by himself, it has significantly impacted how researchers and administrators have perceived retention and graduation over the last 30 years (Swail, 2004). Wade (1991) confirmed that a critical component of student retention is a feeling of belonging

to a campus community. Elkins, Forrester, and Noel-Elkins (2011) assert that intramural sports programs have been shown to significantly impact student retention rates by offering a sense of community for college students. These programs create an environment that is socially conducive for students (Elkins et al., 2011). In fact, Elkins et al. (2011) defined community as "the binding together of individuals toward a common cause or experience" (p. 25). This study supports the importance of Tinto's (1975) Theory of Integration. Just as Tinto's research (1975, 1987, 1993) contended the significance of creating this sense of belonging and commitment to the college, research today demonstrates how vital both the academic and social aspects of the institution are for the benefit of the college student.

Campus Recreational Studies

A key study conducted by Kerr and Downs Research (2002) for NIRSA examined the influence and value of student participation in campus recreation at higher education institutions. A total of 2,673 students were interviewed from 16 colleges. The study found that "participation in recreational sports is a key determinant of satisfaction and success in college" (p. 9). Further, the study found that participation in campus recreation programs and activities was correlated with overall college satisfaction and success. Campus recreation programs and activities was the fifth (out of 21 factors) most significant determinant of college satisfaction and success for heavy users (p. 9). The study defined 'heavy users' as students who participated in campus recreation at least 25 times per month. 'Light users' were defined as students who participated in campus recreation up to 25 times per month. 'Nonusers' were defined as students who did not participate in campus recreation. The perceived benefits that college students were most

likely to associate with participation in recreation sport programs and activities included: overall emotional well-being, reduction in stress, overall happiness, improvement in self-confidence, and building character (Kerr & Downs Research, 2002).

A key reason for the influence of campus recreation on satisfaction and success in college has been identified by Iso-Ahola's (1989) research. According to Iso-Ahola (1989), one mechanism for coping with the constant demands related to college life is through regular participation in recreational programs and activities. According to Kuh (1991), students spend more time participating in extracurricular activities than they do physically in an academic classroom. Involvement in extracurricular activities, such as intramural sports programs, provides students with the opportunity to gain various social and personal benefits, as well as deepen their individual commitment to graduate (Kuh, 1991).

Pascarella and Terenzini (1991) conducted a comprehensive review of the literature entitled *How College Affects Students*. This review supports the claim that student involvement has a "significant and positive influence on various dimensions of general cognitive development" (p. 147). The researchers stressed that students' social and academic self-images are positively related to "involvement in the formal and informal academic and social systems of their institutions" (p. 192).

Perceived Benefits of Participation

Several studies provide evidence that verifies the direct relationship between student participation in intramural sports programs and the perceived social and personal benefits (Christie & Dinham, 1991; Collins et al., 2001; Hall, 2006; Lindsey & Sessoms, 2006; Wankel & Berger, 1990). Among the benefits associated with intramural sports

programs are greater social interaction (Belch et al., 2001; Bourgeois et al., 1995), higher self-esteem (Bourgeois et al., 1995; Kanters & Forester, 1997), greater physical health (Belch et al., 2001; Bourgeois et al., 1995), and improved psychological health (Bourgeois et al., 1995). Artinger et al. (2006) state that the overall goals of increased student interactions are "to foster student learning, personal, and social development" (p. 82). The following portion of the review of the literature will include studies supporting the benefits of participating in intramural sports programs and will highlight three specific benefits of intramural sports programs for college students: (1) social integration, (2) individual development, and (3) student retention.

Social Integration

A perceived social benefit of participation in intramural sports programs among students is the opportunity for social integration. Windschitl (2008) states that "recreational sports programs, particularly intramural sports, provide a powerful medium for student interaction" (p. 21). Bryant et al. (1995) proposes that, except for structured freshmen programs, campus recreation programs [intramural sports] may be the common bond between students. Buccholz (1993) proposes that the majority of students who participate in recreational programs and activities do so because of the desire to interact with other students. Elkins et al. (2011) further suggest that "the greater the opportunity for students to participate in a range of activities, the more likely they are to feel a part of their community and to become productive contributors" (p. 26). These interactions create a natural sense of community and may translate into the development of social skills (Tinto, 1993). As a result, this sense of development may translate into higher retention rates among students who choose to frequently participate in campus recreation

programs [intramural sports] (Belch et al., 2001). This sense of community that is created and the perceived benefits that are gained support Tinto's (1993) Theory of Integration.

Consistent student interaction within the peer group has significant potential to influence personal development of the student. A study conducted by Astin (1999a) with the Higher Education Research Institute suggests that "the peer group is powerful because it has the capacity to involve the student more intensely in the educational experience" (p. 590). This study found that group fitness classes, sport clubs, and intramural sports provide prime opportunities to facilitate student interaction. Participation in these student activities creates more opportunity for student interaction; therefore, increasing the potential for these programs to positively impact the social development of participating students (Astin, 1999a).

One key study investigating the benefits of participating in intramural sports was conducted by Artinger et al. (2006). The Artinger et al. (2006) Social Benefits Questionnaire separated social benefits into five categories: university integration, personal social benefits, cultural social benefits, social group bonding, and reliable alliance benefits. The sample consisted of 349 students who participated in intramural sports at a midsize, post-secondary institution. Results of the study indicated that students benefited the most from personal social benefits and social group bonding. The study found the strongest individual benefit was "improves my overall happiness" (p. 73). The study also identified "improves my ability to work with a diverse group" as the most influential social group bonding benefit (p. 73). Results of this study found that there were significant differences between male students and female students in how they view

commitment to peers, community involvement, ability to work with a team, and social bonding. Furthermore, the researchers concluded that the results of this study support Astin's (1999b) Theory of Involvement, which suggests that the more involved students are with on campus activities, the more the students stand to benefit from this involvement.

Wankel and Berger (1990) suggest that it seems likely that sharing intramural sport experiences and working together under conditions of competitive stress will draw teammates closer. Dalgarn (2001) further added that intramural sports programs create "opportunities for interaction, collaboration, and unification which are essential if campuses are to develop a sense of community" (p. 66). Recreational programs and activities create an environment that fosters social interaction and can help acclimate new students to campus life.

Cheng (2004) explains that the leading detracting factor of students enjoying their living situation on a college campus is loneliness. According to Cheng (2004), students who choose to participate in intramural sports programs experience a significant decrease in personal loneliness and overall stress. Tinto (1993) highlights that contact among students, especially new students to a college campus, is especially important because it helps "cement personal affiliations which tie the new student into the fabric of student culture" (p. 165). Tinto (1993) asserts that "the more frequent and rewarding interactions are between students and other members of the institution, the more likely are individuals to stay" (p. 166). Elkins' et al. (2011) research supports this claim that students may feel a greater attachment to their institution when they experience genuine interactions among their peers.

Individual Development

A key purpose of intramural sports programs is to provide students with programs and activities that aid in the development of holistic students and, ultimately, improve quality of life through individual development (NIRSA, 2004). "Quality of life for students beyond the classroom is measured in many ways, but perhaps none more universal than recreational pursuit" (Parsons, 1989, p. 59). Chickering (1976) proposes that programs, such as campus recreation, provide the "opportunity to influence the psychosocial development of students" (p. 80). Therefore, creating and maintaining quality programs that enable students to develop holistically is essential for campus recreational administrators (Chickering, 1976).

Individual development benefits associated with participating in campus recreation are diverse and abundant (Haines, 2001; Lindsey & Sessoms, 2006; NIRSA, 2004). These benefits include stress reduction (Bryant et al., 1995; Haines, 2001; Lindsey & Sessoms, 2006; NIRSA, 2004), holistic wellness (Haines, 2001), physical strength (Haines, 2001; Kovac & Beck, 1997; Lindsey & Sessoms, 2006; NIRSA, 2004), and intellectual benefits (NIRSA, 2004). According to the Kerr and Downs Research (2002), fitness benefits attained from participation in fitness classes, sports clubs, and intramural sports include physical strength, sport skills, feeling of increased physical well-being, stress reduction, and feeling a sense of accomplishment.

Also, according to the Kerr and Downs Research (2002), intellectual benefits of campus recreation participation include: academic improvement, communication skills, time management skills, problem solving skills, and academic study habits. These intellectual skills developed through participation in campus recreation may equip

students to perform better in the classroom. Osman, Cole, and Vessel (2006) cite academic performance as one of the key individual development benefits of campus recreation programs and activities. The Kerr and Downs Research (2002) linked fitness benefits of participating in recreational programs to increased academic performance. The researchers of the Kerr and Downs (2002) study concluded that fitness benefits can circumvent the negative effects that often accompany an inactive lifestyle and create a positive influence on classroom performance.

A report issued in 1984 by the National Institute of Education (1984) stresses that student involvement is one of the keys to learning. A report by Boyer (1990), published by the Carnegie Foundation, stresses the importance of student involvement in the academic enterprise. Directly applying Astin's (1999b) Theory of Involvement, numerous studies have concluded that "students learn by becoming involved" (Lindsey & Sessoms, 2006, p. 30). "Involvement variables showing positive associations with satisfaction with campus life lean heavily toward student interaction and social life" (p. 284) and include "participating in intramural sports" (Astin, 1993, p. 284).

Research studies show that another essential individual benefit students perceive that they gain through participation in intramural sports programs is improved leadership skills. The Kerr and Downs Research (2002) cites leadership skills as a key area of individual development through participation in intramural sports programs. These leadership skills include gaining a sense of belonging, developing respect for others, and group cooperation skills (NIRSA, 2004). Bryant et al. (1995) suggest that recreation programs enhance the participant's sense of well-being, decision-making skills, leadership and communication abilities, and tolerance of cultural differences. All of

which allow students to develop into effective leaders and team members (Kerr & Downs Research, 2002; NIRSA. 2004).

Retention

A perceived benefit among students participating in intramural sports programs is a strong commitment to attain a college degree. Tinto (2006) asserts that "student retention is one of the most widely studied areas in higher education" (p. 1).

> A bachelor's degree is no longer considered a potential stepping stone to a better life. It is the gatekeeper to myriad social and individual benefits, ranging from income, employment stability, and occupational prestige to engagement in civic and political activities (Cabrera, Burkum, & La Nasa, 2005, p. 155).

"Forced to cope with tight, if not shrinking, budgets, institutions face mounting pressure to improve their rates of student retention and graduation" (Tinto, 2005, pp. ix-x). This changing pressure "reflects the movement of states to include graduation rates in a system of institutional accountability" (Tinto, 2005, pp. ix-x). Christie and Dinham (1991) stated that "students who become adequately integrated into the social and academic systems of their university through participation in extracurricular activities" (pp. 412-413) develop and maintain a strong personal commitment to attain a college degree. Garland (1985) reported that students involved in extracurricular activities tend to feel more satisfaction with the college experience, and therefore, are more likely to graduate from the institution.

Research studies indicate that campus recreation facilities and programs, which include intramural sports programs, play a role for students in deciding which institution they will attend, as well as deciding whether to return to the institution after their first year (Forrester, 2015; Lindsey & Sessoms, 2006). Over 33,500 students from 38 different U.S. colleges and universities participated in the Recreation and Wellness

Benchmark/Survey in 2013 (Forrester, 2015). In this study, 66.6% of students reported that campus recreation facilities influenced their decision of which college to attend and 73.9% of students reported that campus recreation programs influenced their decision to continue at their college (Forrester, 2015). These statistics suggest an increase from a previous study conducted by Lindsey and Sessoms (2006). Lindsey and Sessoms (2006) reported that 31% of students considered recreational facilities and programming as an important factor when choosing a college, and 37% of the student population surveyed felt that intramural sports were important in the decision of whether to persist. Astin (1975) reported that students who were not actively involved at the college were more likely to depart from the institution.

Kovac and Beck (1997) investigated students' perceptions of campus recreation programs [intramural sports], patterns of student participation, and overall life satisfaction with these programs. While the results of the study are limited in scope and generalizability, the findings included that students reported general satisfaction with their recreational sport experiences. Students surveyed felt that the availability of recreational facilities and programs was a key determinant in deciding whether or not to attend the institution, as well as continue at the institution. The results of the study also included that students perceived that their participation in campus recreation programs [intramural sports] provided individual benefits in terms of physical well-being, sense of accomplishment, stress reduction, and physical strength.

The Kerr and Downs Research (2002) proposed that social benefits attained through participation in campus recreation programs [intramural sports] may result in a positive influence on students to persist in college. Two benefits to create a greater desire

to persist in college include helping students have a more positive college social experience and assisting in the integration into life on campus (Kerr & Downs Research, 2002). Furthermore, research has identified that participation in campus recreation programs [intramural sports] increases student satisfaction with the overall college experience (Astin, 1993; Hall, 2006; Snodgrass & Tinsley, 1990).

On-campus versus Off-campus Engagement and Satisfaction

Social adjustment is fundamental for college students, but is particularly important as young adults engage in the process of creating their personal identities (Friedlander, Reid, Shupak, & Cribbie, 2007). Moving away from home to live on a college campus likely accelerates this process (Friedlander et al., 2007). Appropriately, this process is increasingly recognized as an important developmental period for young college students (Arnett, 2000). Entering college requires youth to face multiple transitions, including a fundamental change in their living arrangements (Al-Qaisy, 2010). The decision whether to live on-campus or off-campus throughout the college years plays a vital role in the development of students (Al-Qaisy, 2010; Friedlander et al., 2007).

Data from the University of California Undergraduate Experiences Survey (UCUES) (2004) and the Your First College Year Survey conducted in 2004 were analyzed to examine the relationship between student perceptions of their academic and resident experiences during the first year of college. The results from this study indicated that students who live on-campus tend to be more engaged in campus life. Students living on-campus indicated greater access and use of campus services and programs. These students reported feeling less isolated from the college and indicated higher levels

of overall satisfaction with the college experience. Students who lived off-campus reported using campus services and programs less frequently and were more likely to report a feeling of isolation from the institution.

With respect to academic performance, students living on-campus reported achieving higher grades than students living off-campus. Results of the study also indicated that students living on-campus spent more time involved in other campus pursuits and co-curricular activities than their counterparts. First-year students living on-campus reported greater success in adjusting to campus life and maintained higher grades than students living off-campus (UCUES, 2004).

From this reported study, it is significant to note that students living on-campus during their first or second college year were more likely to indicate greater satisfaction with their campus experiences and social lives. Data showed that students living on-campus reported spending more time studying, achieving and maintaining higher grade point averages, and completing more academic credits that students living off-campus. These students also reported feeling more integrated with the campus community (UCUES, 2004). Directly connected to Tinto's (1993) Theory of Integration, students from this study reported feeling a greater sense of belonging if they were a student living on-campus. These students reported feeling more connected to other friends and participated in more campus activities (UCUES, 2004). Turman and Hendel's (2004) research also indicated that freshmen living on-campus are more likely to be involved in a wider variety of campus recreation programs [intramural sports]. The results of their study also indicated that students living on-campus are more likely to frequent the fitness centers and services than their counterparts living off-campus.

Gender and Perceived Benefits

Previous research shows that the "college years are a pivotal time in life where individuals form many lifelong health behaviors patterns" (Weinfeldt & Visek, 2009, p. 65). The college years "provide unique opportunities for campus communities to positively shape healthful levels of [physical activity] in their students" (Sparling & Snow, 2002, p. 200). Female participation in intramural sports has been and continues to be an area of concern for campus recreation administrators (NIRSA, 2013b). Lower, Turner, and Petersen (2013) examined campus recreation with a specific focus on group fitness, intramural sports, and sport clubs. They analyzed the overall, social, intellectual, and fitness benefits students perceived that were associated with these three recreational programs. The study was administered to 1,176 students. The results indicated that male students participated more than female students in intramural sports and sport clubs (59% male, 41% female) (Lower et al., 2013).

Kovac and Beck (1997) examined the differences in male students versus female students regarding perceived benefits and rates of participation in intramural sports programs. Their study found that female students were generally more satisfied with recreational experiences than male students. They also concluded that female students participated for a wide variety of reasons, including participation for social benefits and community concerns. The study also found that male students are motivated to participate for benefits related more to oneself.

Sturts and Ross (2013) researched social outcomes of collegiate intramural sports participation using an adapted version of the Artinger et al. (2006) Social Benefits Questionnaire. Sturts and Ross (2013) found similarities between the two studies. Both

studies (Artinger et al., 2006; Sturts & Ross, 2013) reported higher social benefits indicated by female students (Sturts & Ross, 2013, p. 36). Further, Sturts and Ross (2013) found that female students self-reported "higher degrees of social outcomes in all areas, with the biggest difference in improving ability to work within a team" (p. 37). The researchers concluded that "literature is sparse regarding female student participation in intramural sports" (Sturts & Ross, 2013, p. 37-38). Therefore, it seems imperative to add to the research regarding female students by analyzing gender differences and the perceived benefits of participation in intramural sports programs.

Conclusion for Review of the Literature

Intramural sports programs are an essential opportunity for student interaction which improve students' sense of community and their overall satisfaction with the college experience (Astin, 1993; NIRSA, 2004). Astin's (1999b) Theory of Involvement and Tinto's (1993) Theory of Integration demonstrate the key role that intramural sports programs play in creating an effective institutional environment, which provides opportunities for students to interact and feel a sense of social belonging on a college campus. A review of the literature demonstrates that some of the perceived benefits of participating in intramural sports include social integration, individual development, and a commitment to attain a college degree. It seems imperative to further examine these benefits as well as other benefits of participating in intramural sports programs. A review of the literature also revealed the need to add to the body of research of on-campus and off-campus perceived benefits of participating in intramural sports programs as well as gender-related perceived benefits of participation in intramural sports.

CHAPTER III

METHODOLOGY

This chapter further clarifies the purpose of the study and the associated specific research questions of interest, as well as outlines the research design, including participants, independent and dependent variables, hypotheses, measurement instrument, data collection, and data analysis. This chapter also addresses the assumptions of the study.

Purpose

The purpose of this study was to examine the perceived benefits of intramural sports participation from the perspective of full-time undergraduate students who participated in at least one intramural sports program at Oklahoma State University (OSU) in the academic semesters of fall 2015 or spring 2016. More specifically, the research questions were:

(1) What benefits do full-time OSU undergraduate students perceive they attain while participating in intramural sports programs?

(2) Are there differences in the perceived benefits based on demographics for those who participate in intramural sports programs while living on-campus and those who participate in intramural sports programs while living off-campus?

Independent and Dependent Variable

The independent variable was the students' residence status as of spring 2016. This study did not manipulate the decision of a student to live on-campus or off-campus. The dependent variable was the perceived benefits students perceive they experience from participation in intramural sports programs. These benefits were grouped into the following categories based on the Artinger et al. (2006) study: personal social, cultural social, university integration, social group bonding, and reliable alliance. The dependent variable was categorical as students identify to what extent they experience certain benefits from participating in intramural sports programs as measured by a survey using a five-point Likert scale ranging from (1) 'Strongly Disagree' to (5) 'Strongly Agree'.

Hypothesis for Research Question 1: What benefits do full-time OSU undergraduate students perceive they attain while participating in intramural sports programs?

H_0: There is no statistically significant benefits perceived among college students from participation in intramural sports programs.

H_1: The data will show that students perceive they receive benefits while participating in intramural sports programs.

Hypothesis for Research Question 2: Are there differences in the perceived benefits based on demographics for those who participate in intramural sports programs while living on-campus and those who participate in intramural sports programs while living off-campus?

H_0: There is no statistically significant difference between population groups means.

H_1: The data will show that the groups means are statistically different.

Participants

The sample population for this study was male and female full-time, undergraduate OSU college students between the ages of 18 to 24 years of age who participated in one or more intramural sports program in the fall 2015 or spring 2016 academic semesters. A simple random sample of this population was identified through Qualtrics (2015). The estimated sample of survey participants included any of the 7,073 students who chose to participate in at least one OSU intramural sports program in the fall 2015 or spring 2016 academic semesters. These 7,073 students were identified using the IMLeagues (2015) program, which tracks participants in intramural sports programs for OSU. IMLeagues is a registered program of the OSU Department of Wellness. Therefore, a simple random sample of 3,650 students was generated through Qualtrics (2015). The sample population was contacted through an invitation email to participate in the study.

Experts do not agree what constitutes an acceptable or unacceptable survey response rate (Riddick & Russell, 2015). Kerlinger and Lee (2000) state that "returns of less than 40% are common. Higher percentages are rare. At best, the researcher must be content with returns as low as 50% or 60%" (p. 603). Babbie (1990) suggests that a response rate of 70% or higher is very good, a response rate of 60% to 69% is good, a rate of 50% to 59% is adequate, and less than 49% is unacceptable. According to

Andrews, Nonneck, and Preece (2003), it is not uncommon when receiving electronic responses to get a response rate of 20% or lower.

Based on previous campus recreation research studies, response rates range much lower than suggested by Kerlinger and Lee (2000) or Babbie (1990). For example, the Lower, Turner, and Peterson (2013) comparative analysis of perceived benefits of participation between recreational sport programs yielded a usable response rate of 29.7%. Henchy's (2013) comparison between undergraduate and graduate students, and their perceived benefits of participating in campus recreation programs and facilities generated an overall response rate of 22%. Henchy's (2011) research study of the influence of campus recreation on student retention received a nine percent response rate. Zizzi, Ayers, Watson, and Keeler (2004) yielded a three percent response rate while assessing the impact of new student campus recreation centers at a large mid-Atlantic college.

Therefore, this researcher expected a response rate of 10% to 15%, or 365 to 548 responses. In order to achieve a confidence level of 95%, the study needed to receive at least 365 completed surveys from the sample population (Israel, 1992). All data was imported into SPSS program for analysis. Because this study used self-reported responses, the SPSS list-wise deletion was utilized, meaning if any questions were left unanswered then that subject's responses were deleted from the data.

Campus Overview

Oklahoma State University (OSU) is a land-grant system of interdisciplinary programs located in the southwest part of the United States. Established in 1890, OSU is committed to high-quality teaching, research, and outreach. OSU has more than 35,000

students across its five-campus system and more than 24,000 students on its combined Stillwater and Tulsa campuses, with students representing all 50 states and approximately 120 nations. As highlighted on the OSU website, OSU has graduated more than 240,000 students over the past 125 years (OSU, 2016).

With the current institutional emphasis to be "America's healthiest campus," greater resources and attention have been dedicated to the Colvin Recreation Center. The Colvin Recreation Center re-opened in 2004 after a $20 million renovation and offers 250,000 square feet of recreational facility options. Students may choose from 10 basketball courts, 8 racket ball courts, indoor track, 2 cardio theater rooms, a multipurpose gym, indoor pool, outdoor pool, 2 dance studios, 3 multipurpose fitness rooms, selectorized weights, free weights, rock climbing wall, putting green, and 2 golf simulators. In July 2011, the Department of Campus Recreation and the Seretean Wellness Center merged creating the Department of Wellness (2016).

The intramural sports program at OSU serves more than 3,500 participants weekly and in more than 50 sporting activities throughout the year. Based on 2014 – 2015 academic year, a statistical analysis reported a total of 7,830 unique participants. Sixty-seven percent of all participants were male and 33% were female participants. The two most popular sports for the 2014 – 2015 academic year were basketball and flag football. Three hundred forty-six teams participated in basketball and 319 teams participated in flag football (IMLeagues, 2015).

Measurement

The instrument used in this study was the Artinger et al. (2006) Social Benefits Questionnaire which was implemented at another institution of higher education. Under

the direction of Dr. Scott Forrester, an assistant professor in the Department of Recreation and Leisure Studies, this questionnaire was developed to examine the social benefits of intramural sports participation for undergraduate students at a midsized, postsecondary institution. The original focus of this questionnaire was to identify "what social benefits are attained while participating in intramural sports?" (Artinger et al., 2006, p. 71).

The Artinger et al. (2006) Social Benefits Questionnaire (Appendix A) consists of 23 five-point Likert statements. Outcomes measured in this questionnaire were grouped in five main categories. A representative question is provided for each. The five main categories are (1) personal social benefits (e.g., "In your opinion, participation in intramural sports improves my leadership abilities."), (2) cultural social benefits (e.g., "In your opinion, participation in intramural sports improves my ability to work with a diverse group."), (3) university integration related social benefits (e.g,. "In your opinion, participation in intramural sports increases my community involvement."), (4) social group bonding benefits (e.g., "In your opinion, participation in intramural sports allows me to bond with my teammates."), and (5) reliable alliance benefits (e.g., "In your opinion, participation in intramural sports increases my willingness to perform at my best potential."). Respondents rated their level of agreement to social outcomes statements using a five-point Likert scale ranging from (1) 'Strongly Disagree' to (5) 'Strongly Agree'. Items in the questionnaire that were negatively worded were reverse coded for analysis purposes. A high score indicates a greater degree of benefits reported. The five social benefits were measured by four to six statements designed to assess that particular

benefit. These same five groupings were utilized in the current study. Subscales were identified for each of the five social benefits measured.

Internal consistency for the Artinger et al. (2006) Social Benefits Questionnaire and each of the five social outcome subscales was established. The internal consistency for the overall instrument was reliable (α= 0.88) (Artinger et al., 2006). Artinger et al. (2006) found that the α for the personal social, cultural, university integration, social group bonding, and reliable alliance benefits were 0.67, 0.66, 0.54, 0.72, and 0.59, respectively. Results of the reliability analyses suggest that the overall scale was considered reliable; however, the researcher found that the reliability of the five subscales for social benefits was tenuous, at best. Therefore, Artinger et al. (2006) examined statements individually. For purposes of the current study, the Artinger et al. (2006) Social Benefits Questionnaire was not altered. This instrument was used in its original form and results focused on the individual statements.

In addition to the Artinger et al. (2006) Social Benefits Questionnaire, six demographic questions were asked in the current study. These six questions allowed the researcher to identify the following: gender, age, resident status (either on-campus or off-campus), classification in school, ethnicity, and Greek participation.

Data Collection

The survey received Institutional Review Board (IRB) approval (Appendix B) on July 21, 2016 and was then distributed through Qualtrics (2015). The timetable for data collection was five weeks. The survey began on Monday, July 25, 2016 and closed on Monday, August 29, 2016. It is expected that the survey will take approximately 5 to 10 minutes for students to complete. The software distributed the survey to 3650

undergraduate students who participated in at least one intramural sports program during the academic semesters of fall 2015 and spring 2016. The researcher sent an initial email to the students, which included a brief introductory statement of the purpose and a link to the survey (Appendix C).

As a thank you for completing the survey, an email link was included for participants who wished to enter a random drawing to win one of three $50 Academy Sports gift cards. Participants were asked to provide their preferred form of contact. The email osuintramuralsurvey@gmail.com was set up for this purpose only. Participants did not have to take the survey prior to enter the drawing. This ensured anonymity with the survey because there was no connection between respondents and survey data. This allowed potential participants who did not take the survey to enter the drawing; however, anonymity was still met. Winners were contacted within a week of the completion of the five-week survey period through their preferred form of contact.

The students were given five weeks to complete the survey. From the introductory email, the student could click on a link which directed him/her to the survey. The student was asked if he/she agreed to participate in the study. If the student clicked "Agree," the student was immediately directed to the survey's first question. Consent was implied if the student chose to take the survey. Once a student began the survey, he/she had one week to complete it. Students only had the option to complete the survey once. If the student decided not to participate in the survey, he/she clicked the forward button and was directed to the "thank you" page. The student's non-response was automatically recorded. Students were notified that their participation in the study was completely voluntary.

During the second week, a follow-up email (Appendix D) was sent reminding students who had not yet participated that the opportunity was still available. The same follow-up email was sent at the beginning of the fourth and fifth weeks. Within the three follow-up emails, a brief introduction describing the study was included as well as informing the students who had not participated that the questionnaire was still available. After the five-week period, the survey deactivated and was no longer accessible to students.

Data will be retained for up to one year according to the IRB approval. Data will be stored on a secure, password-protected computer in 104BB Colvin Center. Only the researcher and advisor had access to this computer and password. No IP addresses were collected. The researcher selected the option for Qualtrics (2015) to use an anonymous link option.

Research Analysis

After the data was collected and entered into SPSS (Version 21), statistical analyses were performed. First, frequency counts were generated on the nominal data (e.g., resident status, age, gender, classification in school, and ethnicity). General descriptive statistics of the sample were reported.

To analyze the first research question of this study, "What benefits do full-time OSU undergraduate students perceive they attain while participating in intramural sports programs?" a factorial analysis was performed on the Artinger et al. (2006) Social Benefits Questionnaire. The factorial analysis produced weak relationships, therefore the five sub categories were not reported. Reliability for the instrument was analyzed through the Cronbach's alpha for the five sub categories and for the combined scale.

Further analysis of the individual social benefits statements were analyzed through the means and standard deviation values.

In order to analyze the second research question, "Are there differences in the perceived benefits based on demographics for those who participate in intramural sports programs while living on-campus and those who participate in intramural sports programs while living off-campus?" independent sample t-tests and two-way analysis of variances (ANOVA) were used to examine differences between groups. An independent sample t-test was performed with resident status as the grouping variable. An independent sample t-test was performed with gender as the grouping variable. A two-way ANOVA was performed on gender and residency.

The following six assumptions were met in this study regarding independent sample *t*-tests and two-way ANOVA (Nolan & Heinzen, 2012). First, the dependent variable was measured on a continuous scale. Previous research has indicated that even though a Likert scale does not constitute a completely continuous scale, it has been found appropriate to treat Likert scale items as continuous (Allen & Seaman, 2007). Second, the independent variable consisted of two categorical, independent groups (male and female participants as well as on-campus and off-campus residents). Third, this study had an independence of observations; no member of any group was included in more than one group at a time. Fourth, the study ensured there were no significant outliers. Fifth, the dependent variable in this study assumed to approximate a normal distribution for each group of the independent variable. Sixth, this study assumed a homogeneity of variables. The researcher tested for homogeneity of variables utilizing the Levene's test

for homogeneity of variables (Nolan & Heinzen, 2012). These six assumptions were checked through SPSS.

Assumptions

The following two assumptions were made for the purpose of the study:

1. The instrument was reliable and correlated directly with the proposed purpose.
2. All survey participants provided self-responses as accurate as possible.

CHAPTER IV

RESULTS

The purpose of this study was to examine the perceived benefits of intramural sports participation for full-time undergraduate students at Oklahoma State University. The two research questions that directed the data analysis of the study were:

(1) What benefits do full-time OSU undergraduate students perceive they attain while participating in intramural sports programs?

(2) Are there differences in the perceived benefits based on demographics for those who participate in intramural sports programs while living on-campus and those who participate in intramural sports programs while living off-campus?

This chapter reports the results from the data that were analyzed, including the study response rate, demographics, an analysis of social benefits statements by (1) gender, (2) resident status, (3) Greek community affiliation, (4) female students living on-campus and female students living off-campus, and (5) male students living on-campus and male students living off-campus.

Response Rate

Of the 3,620 students who were invited to participate in the study, 249 participated in the questionnaire. All of the responses were exported from Qualtrics (2015) into SPSS. Twenty-nine students started the questionnaire but did not complete it, which were deleted from the analysis. Therefore, using the 220 completed responses, the study had a 6.1% response rate.

Demographics

Of the 220 participants, 59.1% were male (n=130) and 40.5% were female (n=89). One student marked gender as other (0.5%). The distribution of year in school included 15.0% freshmen (n=33), 22.7% sophomores (n=50), 30.9% juniors (n=68), and 30.5% seniors (n=67). Two students marked themselves as other. Nineteen percent of the participants were 19 years of age (n=42), 24.5% were aged 20 years (n=54), 31.4% were aged 21 years (n=69), 17.3% were aged 22 years (n=38), 5.9% were aged 23 years (n=13), and 1.8% were aged 24 years or older (n=4).

The majority of survey participants lived off-campus during the spring of 2016. Of students who completed the survey, 64.5% lived off-campus in spring of 2016 (n=142) and 34.5% lived on-campus in spring of 2016 (n=76). Two students marked themselves as other. Male students living off-campus were the largest group to participate in the survey (n=86, 39.1%). Table 4.1 provides the data comparing number of students living on-campus and the number of students living off-campus. Table 4.2 shows the breakdown of gender and resident status demographics of survey participants.

Table 4.1. Data of students living on-campus and off-campus

Variable	n	%
Students living on-campus	76	34.5
Students living off-campus	142	64.5

Table 4.2. Data of gender and resident status demographics

Variable	Male	Female
Students living on-campus	44 (20.0%)	31 (14.1%)
Students living off-campus	86 (39.1%)	56 (25.5%)

Note: 1.3% marked as other

The majority of survey participants were not a member of the Greek community, 61.4% (n=135). Fraternity members consisted of 23.2% (n=51) of survey participants and sorority members consisted of 15.5% (n=34). One hundred and thirty-five (61.4%) survey participants indicated that they were not a member of the Greek community.

Of the 220 survey participants, 83.2% identified their racial/ethnic group as white (n=183), 5.0% as American Indian/Alaskan Native (n=11), 3.6% as multiracial (n=8), 2.3% as African American (n=5), 2.3% as Hispanic (n=5), 1.8% as Asian (n=4), 0.9% as other (n=2), 0.5% as Native Hawaiian/Pacific Islander (n=1), and 0.5% as prefer not to report my race/ethnicity (n=1).

Analysis of Social Benefits Statements

The five social benefits identified by Artinger et al. (2006) Social Benefits Questionnaire were measured on a five point Likert scale ranging from one (1) 'Strongly Disagree' to five (5) 'Strongly Agree'. Each of the five social benefits categories consisted of four to six statements designed to assess that specific benefit. Each of the five benefits had at least two statements that were negatively worded in order to address

the social desirability response issue. Social desirability "refers to the fact that some respondents will answer items in a way they believe would be most socially appropriate, regardless of their true feelings" (Worthen, White, Fan, & Sudweeks, 1999, p. 172). In order to keep the data in a consistent format for analysis, responses to these negatively-worded statements were reverse coded after the data was imported to SPSS. Throughout this analysis, the statements that were reversed coded were indicated with an *.

A factorial analysis was performed using SPSS among the five social benefits categories following the principal factor procedure. Examination of the correlation matrix revealed that the five categories were moderately correlated. Further analysis of the 23 social benefits statements produced a small to moderate correlation. These results suggest that statements were unrelated and measure distinct social benefits. The factorial analysis produced no findings supporting the five social benefits categories. These findings are consistent with the study using the Artinger et al. (2006) Social Benefits Questionnaire.

The internal consistency of the Artinger et al. (2006) Social Benefits Questionnaire was addressed in order to determine if all the items within the social benefits statements yielded similar results. Cronbach's alpha coefficient, a measure of internal consistency, was conducted. Reliability for this instrument was established for the combined scale with an α=0.90. With the overall reliability of the Cronbach's alpha being high for the scale, it points to the student perceptions of an overall benefit. Cronbach's alpha for the personal social, cultural, university integration, social group bonding, and reliable alliance social benefits were 0.787, 0.750, 0.531, 0.776, and 0.635, respectively.

The highest mean score in the personal social benefits category was a 4.19 (SD = 0.740) in response to the question "Improves my overall happiness." The four statements in the cultural benefits category produced relatively low mean scores compared to the other social benefits. The highest mean score in the cultural benefits category was a 3.89 (SD = 0.663) in response to the question "Improves my ability to work with a diverse group." University integration benefits category reported the highest mean at 3.86 (SD = 0.888) for "Improves my sense of belonging within the university." Along with the cultural benefits category, the mean scores for the university integration benefits statements were relatively low compared to the other three benefits. Social group bonding benefits reflected the highest scores overall, ranging from 4.02 (SD = 0.728) in response to "Improves my ability to socially interact" to 4.28 (SD = 0.606) in response to "Allows me to bond with my teammates." Reliable alliance benefits reported the highest mean score of 4.01 (SD = 0.740) in response to "Increases my willingness to perform at my best potential." Table 4.3 reports the mean and standard deviation values for each of the social benefits statements.

Table 4.3. Mean and standard deviation values for the social benefits statements

Social benefits statements	*M*	*SD*
Personal social benefits		
Improves my leadership abilities	3.62	0.855
Allows me to better understand myself*	3.69	0.857
Improves my overall happiness	4.19	0.740
Improves my self-confidence*	3.87	0.717
Increases my feeling of self-worth	3.77	0.750
Cultural benefits		
Improves my ability to work with a diverse group	3.89	0.663
Improves my understanding of different cultures	3.04	0.926
Increases my willingness to learn about diverse cultures*	3.24	0.876
Increases my tolerance of different cultures*	3.40	0.862
University integration benefits		
Improves my sense of belonging within the university*	3.86	0.888
Increases my satisfaction with my university experience*	3.64	1.266
Improves my sense of responsibility to my university	3.29	0.935
Increases my community involvement	3.80	0.872
Social group bonding benefits		
Reduces social alienation	4.10	0.704
Improves my social relations	4.21	0.628
Improves my ability to work within a team*	4.17	0.761
Adds to social bonding and support*	4.15	0.730
Improves my ability to socially interact*	4.02	0.728
Allows me to bond with my teammates	4.28	0.606
Reliable alliance benefits		
Increases my trust in peers*	3.59	0.842
Increases my commitment to my peers*	3.80	0.796
Increases my willingness to perform at my best potential	4.01	0.740
Helps to manage my time better	3.94	0.791

Note: *Indicates that these statements were originally negatively worded, but have been rephrased positively in order to be consistent with the mean values that reflected reverse coding of participants' responses.

Analysis of Social Benefits Statements by Gender

An independent sample *t*-test was conducted in order to determine whether there were significant differences of perceived benefits between male and female students. There was a significant difference for gender, $t(216) = -2.96$, $p<0.01$, with female students reporting higher mean scores for the social benefits statements than male students. The sum of the female students (n = 89) mean scores was 90.16 (out of a possible 115, $SD = 10.712$) and the sum of the male students (n=130) mean scores was 85.92 (out of a possible 115, $SD = 10.124$). An independent sample *t*-test between male and female students revealed that there were significant differences for six of the social benefits statements: "Improves my leadership abilities," "Increases my willingness to perform at my best potential," "Improves my ability to work with a diverse group," "Increases my satisfaction with my university experience,"* "Increases my community involvement," and "Increases my feeling of self-worth." Table 4.4 provides the results of the gender differences in social benefits statements.

Table 4.4. Gender differences in social benefits statements

Social benefits statements	*df*	*t*	*M*	
			Male	Female
Personal social benefits				
Improves my leadership abilities	217	-1.635*	3.54	3.73
Increases my feeling of self-worth	217	-1.905**	3.69	3.89
Cultural benefits				
Improves my ability to work with a diverse group	217	-2.473*	3.80	4.02
University integration benefits				
Increases my community involvement	217	-3.232**	3.65	4.03
Increases my satisfaction with my university experience[+]	217	0.703***	3.68	3.56

Reliable alliance benefits				
Increases my willingness to perform at my best potential	217	-0.962**	3.97	4.07

Notes: * $p < .05$, ** $p < .01$, *** $p < .001$; [+]Indicates that these statements were originally negatively worded, but have been rephrased positively in order to be consistent with the mean values that reflected reverse coding of participants' responses.

The four highest mean scores for female students (n = 89) were in response to statements from the social group bonding benefits category. The statements were: (1) "Improves my ability to work within a team"* (M =4.33, SD = 0.750), (2) "Adds to social bonding and support"* (M =4.33, SD = 0.636), (3) "Allows me to bond with my teammates" (M =4.33, SD = 0.673), and (4) "Improves my social relations" (M =4.31, SD = 0.576).

Female students (n=89) reported the three lowest mean scores for cultural benefits statements. These three statements were: (1) "Improves my understanding of different cultures" (M =3.17, SD = 0.829), (2) "Increases my willingness to learn about diverse cultures"* (M =3.39, SD = 0.861), and (3) "Increases my tolerance of different cultures"* (M =3.45, SD = 0.866).

Male students (n=130) reported highest mean scores for statements from the two categories of social group bonding benefits and personal social benefits. The three social group bonding benefits statements include: (1) "Allows me to bond with my teammates" (M =4.25, SD = 0.558), (2) "Improves my social relations" (M =4.14, SD = 0.656), and (3) "Improves my ability to work within a team"* (M =4.08, SD = 0.733). Female students (n = 89) reported highest means for these three social group benefits statements as well. Male students reported a mean score of 4.18 (SD = 0.702) for the personal social benefits statement of "Improves my overall happiness."

Similar to the results from female students for lowest mean scores, male students (n=130) also indicated lowest mean scores for cultural benefits statements. These three statements were: (1) "Improves my understanding of different cultures" (M =2.95, SD = 0.983), (2) "Increases my willingness to learn about diverse cultures"* (M =3.14, SD = 0.878), and (3) "Increases my tolerance of different cultures"* (M =3.37, SD = 0.864). These were the same three statements that received lowest mean scores from female students (n=89) as well. The other lowest mean score for male students was a 3.16 (SD = 0.938) in response to a university integration benefits statement, "Improves my sense of responsibility to my university."

Analysis of Social Benefits Statements by Resident Status

An independent sample t-test was used in order to determine whether there were significant differences between students who live on-campus and students who live off-campus. There was a moderate significant difference for resident status, $t(215) = -2.09$, $p<0.05$, with students living on-campus reporting higher mean scores for the social benefits statements than students living off-campus. The sum of the students living on-campus (n = 76) mean scores was 89.50 (out of a possible 115, SD = 10.812) and the sum of the students living off-campus (n=142) mean scores was 86.40 (out of a possible 115, SD = 10.197). An independent sample t-test between students living on-campus and students living off-campus revealed that there was a significant difference for one of the social benefits statements, "Improves my leadership abilities" $t(216) = 1.442$, $p <0.05$. Students living on-campus reported a mean score of 3.72 (SD = 0.776) and students living off-campus reported a mean score of 3.55 (SD = 0.888).

Students living on-campus (n=76) and students living off-campus (n=142) reported highest mean scores for the same perceived social benefits statements. Four of these statements are benefits in the social group bonding benefits category and one from the personal social benefits category. The mean scores and standard deviations are reported in Table 4.5

Table 4.5. Results of social benefits statements with highest mean scores between students living on-campus and students living off-campus

Social benefits statements	**On-campus** (n=76)		**Off-Campus** (n=140)	
	M	*SD*	*M*	*SD*
Personal social benefits				
Improves my overall happiness	4.26	0.737	4.15	0.743
Social group bonding benefits				
Allows me to bond with my teammates	4.30	0.542	4.26	0.640
Improves my social relations	4.25	0.520	4.18	0.680
Improves my ability to work within a team*	4.24	0.781	4.16	0.752
Adds to social bonding and support*	4.18	0.812	4.13	0.683

Note: *Indicates that these statements were originally negatively worded, but have been rephrased positively in order to be consistent with the mean values that reflected reverse coding of participants' responses.

Students living on-campus (n=76) and students living off-campus (n=142) reported highest mean scores for the same perceived social benefits statements, the lowest reported mean scores were also the same between the two groups. The three lowest mean scores from resident status groups were for the cultural benefits category. See Table 4.6 for the social benefits statements with the lowest mean scores between students living on-campus and students living off-campus.

Table 4.6. Results of social benefits statements with lowest mean scores between students living on-campus and students living off-campus

Social benefits statements	**On-campus** (n=76)		**Off-Campus** (n=140)	
	M	*SD*	*M*	*SD*
Cultural benefits				
Improves my understanding of different cultures	3.08	1.017	3.00	0.867
Increases my willingness to learn about diverse cultures*	3.38	0.879	3.16	0.872
Improves my sense of responsibility to my university	3.41	0.982	3.22	0.900

Note: *Indicates that these statements were originally negatively worded, but have been rephrased positively in order to be consistent with the mean values that reflected reverse coding of participants' responses.

Analysis of Social Benefits Statements by Greek Community Affiliation

An independent sample *t*-test was conducted in order to determine whether there were significant differences of perceived benefits between students affiliated with the Greek community and students not affiliated with the Greek community. There was no significant difference for students affiliated with the Greek community and those who are not, $t(217) = 0.383$, $p < 0.05$. The sum of the students affiliated with the Greek community (n = 85) mean scores was 87.94 (out of a possible 115, SD = 9.566) and the sum of the students not affiliated with the Greek community (n=134) mean scores was 87.38 (out of a possible 115, SD = 11.136).

An independent sample *t*-test was conducted in order to determine whether there were significant differences of perceived benefits between students in a fraternity and in a sorority. There was a statistically significant difference between students in a fraternity and students in a sorority, $t(83) = -2.251$, $p < 0.05$. The sum of the students in a fraternity

(n = 51) mean scores was 86.08 (out of a possible 115, SD = 9.556) and the sum of the students in a sorority (n=34) mean scores was 90.73 (out of a possible 115, SD = 9.009).

Analysis of Social Benefits Statements for Female Students

Grouped by Resident Status

Two-way ANOVA was conducted to determine significant differences in perceived benefits between female students living on-campus and female students living off-campus. Twelve social benefits statements were considered statistically significant at the $p < .05$ level or lower. The mean and standard deviations for these twelve social benefits statements are listed in Table 4.7.

Table 4.7. Results of statistically significant social benefits statements between female students living on-campus and female students living off-campus

Social benefits statements	*df*	*F ratio*	*M*	
			On	Off
Personal social benefits				
Improves my leadership abilities	85	5.472*	3.97	3.57
Cultural benefits				
Improves my ability to work with a diverse group	85	6.534*	4.23	3.89
Improves my understanding of different cultures	85	5.570*	3.42	3.00
Increases my willingness to learn about diverse cultures[+]	85	4.300*	3.65	3.25
Increases my tolerance of different cultures[+]	85	4.932*	3.71	3.29
University integration benefits				
Improves my sense of belonging within the university[+]	85	5.618*	4.26	3.79
Increases my satisfaction with my university experience	85	5.972*	4.03	3.27
Improves my sense of responsibility to my university	85	5.756*	3.77	3.30
Increases my community involvement	85	13.864***	4.42	3.80
Social group bonding benefits				
Improves my social relations	85	4.537*	4.48	4.21
Improves my ability to work within a team[+]	85	5.992*	4.58	4.18
Improves my ability to socially interact[+]	85	7.840**	4.42	3.95

Notes: * $p < .05$, ** $p < .01$, *** $p < .001$; [+]Indicates that these statements were originally negatively worded, but have been rephrased positively in order to be consistent with the mean values that reflected reverse coding of participants' responses.

Female students living on-campus reported higher means scores for 22 of the 23 social benefits statements than their female students living off-campus counterparts. Both female students living on-campus as well as living off-campus reported an identical mean score in response to the social benefits statement regarding "Reduces social alienation" ($M = 4.16, 4.16$, $SD = 0.688, 0.682$). Next, an in-depth analysis of highest and lowest mean scores for the individual groups will be reported.

Female students living on-campus (n = 31) reported the highest mean scores on the survey for statements in the social group bonding benefits category. Of the six social group bonding benefits, five reported highest means, as well as one of the university integration benefit statements. Table 4.8 provides the mean scores and standard deviations for the six highest mean scores for female students living on-campus.

Table 4.8. Results of highest mean scores for social benefits statements of female students living on-campus

Social benefits statements	***M***	***SD***
Social group bonding benefits		
Improves my ability to work within a team*	4.58	0.502
Improves my social relations	4.48	0.508
Adds to social bonding and support*	4.48	0.594
Allows me to bond with my teammates	4.42	0.564
Improves my ability to socially interact*	4.42	0.564
University integration benefits		
Increases my community involvement	4.42	0.564

Note: *Indicates that these statements were originally negatively worded, but have been rephrased positively in order to be consistent with the mean values that reflected reverse coding of participants' responses.

The three reported lowest mean scores for female students living on-campus (n = 31) were all from the cultural benefits category. The cultural benefits category reported the lowest means for the overall scores of gender combined; which concurs with previous reported results of the study. The three cultural benefits statements with the lowest mean scores were "Improves my understanding of different cultures" ($M = 3.42$, $SD = 0.923$), "Increases my willingness to learn about diverse cultures"* ($M = 3.65$, $SD = 0.798$), and "Increases my tolerance of different cultures"* ($M = 3.71$, $SD = 0.864$).

Similar to the results of female students living-on campus, female students living off-campus (n = 56) reported the highest mean scores for social group bonding benefit statements. Five of the six social group bonding benefit statements received the highest mean scores overall from this group. These five social group bonding benefit statements and the highest personal social benefits statements are listed in Table 4.9.

Table 4.9. Results of highest mean scores for social benefits statements of female students living off-campus

Social benefits statements	***M***	***SD***
Social group bonding benefits		
Allows me to bond with my teammates	4.27	0.732
Adds to social bonding and support*	4.21	0.594
Improves my social relations	4.21	0.594
Improves my ability to work within a team*	4.18	0.834
Reduces social alienation	4.16	0.682
Personal social benefits		
Improves my overall happiness	4.11	0.779

Note: *Indicates that these statements were originally negatively worded, but have been rephrased positively in order to be consistent with the mean values that reflected reverse coding of participants' responses.

Consistent with their female counterparts living on-campus, female students living off-campus reported the lowest mean scores for cultural benefit statements, as well as one university integration benefits. The cultural benefits category statements reporting the lowest mean scores were "Improves my understanding of different cultures" (M = 3.00, SD = 0.714), "Increases my willingness to learn about diverse cultures"* (M = 3.25, SD = 0.879), and "Increases my tolerance of different cultures"* (M = 3.29, SD = 0.847). Female students living off-campus reported a mean of 3.27 (SD = 1.446) for the university integration benefit statement of "Increases my satisfaction with my university experience"*.

Eleven social benefits statements had similar mean scores between female students living on-campus and female students living-off campus. Table 4.10 provides the mean scores and standard deviations for these 11 social benefits statements.

Table 4.10. Results of social benefits statements with similar mean scores between female students living on-campus and female students living off-campus

Social benefits statements	**On-campus** (n=31)		**Off-Campus** (n=56)	
	M	*SD*	*M*	*SD*
Personal social benefits				
Allows me to better understand myself*	4.00	0.775	3.75	0.919
Improves my overall happiness	4.35	0.839	4.11	0.779
Improves my self-confidence*	4.10	0.831	3.89	0.731
Increases my feeling of self-worth	4.03	0.706	3.79	0.680
Social group bonding benefits				
Reduces social alienation	4.16	0.688	4.16	06.82

Adds to social bonding and support*	4.48	0.677	4.21	0.594
Allows me to bond with my teammates	4.42	0.564	4.27	0.732
Reliable alliance benefits				
Increases my trust in peers*	3.84	0.898	3.63	0.843
Increases my commitment to my peers*	4.10	0.870	3.91	0.793
Increases my willingness to perform at my best potential	4.23	0.805	3.95	0.862
Helps to manage my time better	4.16	0.688	3.93	0.806

Note: *Indicates that these statements were originally negatively worded, but have been rephrased positively in order to be consistent with the mean values that reflected reverse coding of participants' responses.

Analysis of Social Benefits Statements for Male Students Grouped by Resident Status

Two-way ANOVA was conducted to determine significant differences in perceived benefits between male students living on-campus and male students living off-campus. Two-way ANOVA did not report any statistically significant differences between male students living on-campus and male students living off-campus. Even though no statistically significant differences were identified, for purposes of this study, a comparison of highest and lowest mean scores will be reported for research discussion purposes.

Male students living off-campus reported higher means scores for 13 of the 23 social benefits statements than their male students living on-campus counterparts. This is a reported difference from the female students living on-campus who reported higher means scores for 22 of the 23 social benefits statements than female students living off-campus. For 18 of the 23 social benefits statements male students living on-campus had a mean score within +/-0.10 difference of male students living off-campus. For example, for the personal social benefits statement of "Improves my leadership abilities" male

students living on-campus (n = 44) reported a mean score of 3.55 (*SD* = 0.875) while male students living off-campus (n = 86) reported a mean score of 3.53 (*SD* = 0.916). Both groups (male students living on-campus and male students living off-campus) reported a mean score of 3.16 (*SD* = 0.963, 0.931) as a response to the university integration benefits statement of "Improves my sense of responsibility to my university".

Male students living on-campus (n = 44) reported the highest mean scores for three out of the six of the social group bonding benefits statements, as well as one personal social benefit and one reliable alliance benefit. Table 4.11 reports the results of highest mean scores for social benefits statements of male students living on-campus.

Table 4.11. Results of highest mean scores for social benefits statements of male students living on-campus

Social benefits statements	***M***	***SD***
Social group bonding benefits		
Allows me to bond with my teammates	4.23	0.522
Improves my social relations	4.09	0.473
Improves my ability to work within a team*	4.05	0.806
Personal social benefits		
Improves my overall happiness	4.20	0.668
Reliable alliance benefits		
Increases my willingness to perform at my best potential	4.02	0.590

Note: *Indicates that these statements were originally negatively worded, but have been rephrased positively in order to be consistent with the mean values that reflected reverse coding of participants' responses.

Male students living on-campus (n = 44) reported the lowest mean scores for two of the four cultural benefits and one for each of reliable alliance benefits and university integration benefits. The two cultural benefit statements with the lowest mean scores

were "Improves my understanding of different cultures" ($M = 2.84$, $SD = 1.033$) and "Increases my willingness to learn about diverse cultures"* ($M = 3.20$, $SD = 0.904$). Male students living on campus reported a mean of 3.45 ($SD = 0.848$) in response to "Increases my trust in peers"*. The university integration benefit statement, "Improves my sense of responsibility to my university" reported a mean score of 3.16 ($SD = 0.963$).

Male students living off-campus (n = 86) reported the highest mean scores for four of the same social benefits statements that male students living on-campus reported highest mean scores. Three of these four statements included social group bonding benefits as well. The personal social benefit that received highest scores from both male students living on-campus as well as male students living off-campus was "Improves my overall happiness." Male students living off-campus reported a mean of 4.17 ($SD = 0.723$). In addition to the statements that were consistent with male students living on-campus, male students living off-campus reported high mean scores to two additional social group bonding benefits. Table 4.12 reports the results of highest mean scores for social benefits statements of male students living off-campus.

Table 4.12. Results of highest mean scores for social benefits statements of male students living off-campus

Social benefits statements	***M***	***SD***
Social group bonding benefits		
Allows me to bond with my teammates	4.26	0.578
Improves my social relations	4.16	0.733
Reduces social alienation	4.09	0.792
Improves my ability to work within a team*	4.09	0.697
Adds to social bonding and support*	4.07	0.732
Personal social benefits		
Improves my overall happiness	4.17	0.723

Reliable alliance benefits		
Increases my willingness to perform at my best potential	4.02	0.590

Note: *Indicates that these statements were originally negatively worded, but have been rephrased positively in order to be consistent with the mean values that reflected reverse coding of participants' responses.

Male students living off-campus (n = 86) also reported the lowest mean scores for four of the same social benefits statements as male students living on-campus. These four statements included two cultural benefits, one reliable alliance benefit, and one university integration benefit. The two cultural benefits were "Improves my understanding of different cultures" (M = 3.00, SD = 0.958) and "Increases my willingness to learn about diverse cultures"* (M = 3.10, SD = 0.868). The reliable alliance benefit statement with the lowest mean score was "Increases my trust in peers"* (M = 3.53, SD = 0.822) and the university integration benefit with the lowest mean was "Improves my sense of responsibility to my university" (M = 3.16, SD = 0.931).

In addition to the statements that were consistent with male students living on-campus, male students living off-campus reported lowest mean scores for another cultural benefit statement as well as one personal social benefit statement. Male students living off-campus reported a mean of 3.34 (SD = 0.876) in response to "Increases my tolerance of different cultures"* and a mean score of 3.53 (SD = 0.916) in response to the personal social benefits statement of "Improves my leadership abilities."

CHAPTER V

DISCUSSIONS AND CONCLUSION

This study was designed to examine the perceived benefits of participating in intramural sports of full-time undergraduate students at Oklahoma State University. The two research questions that directed the study were: "What benefits do full-time OSU undergraduate students perceive they attain while participating in intramural sports programs?" and "Are there differences in the perceived benefits based on demographics for those who participate in intramural sports programs while living on-campus and those who participate in intramural sports programs while living off-campus?" Based on the literature, the first hypothesis stated that the data from the survey would show that students perceive they receive benefits while participating in intramural sports programs. The second hypothesis, based on previous research, stated that students who participate in intramural sports programs while living on-campus receive greater benefits than students who participate in intramural sports programs while living off-campus. The researcher hypothesized that the group means between male and female students would be

statistically different. The researcher also indicated that the group means between female students living on-campus and female students living off-campus would be statistically different; as well as that the group means between male students living on-campus and male students living off-campus would be statistically different. This chapter presents a discussion of the results of the study as well as includes a summary of the study. Limitations for the study are identified and recommendations for future research are presented.

Discussion of Hypothesis 1

The alternative hypothesis for research question one, "What benefits do full-time OSU undergraduate students perceive they attain while participating in intramural sports programs?," stated that the data will show that students perceive that they receive benefits while participating in intramural sports programs. Previous research studies indicated that students who participate in intramural sports programs are more likely to perceive they experience social and individual benefits (Artinger et al., 2006; Forrester, 2015; Henchy, 2011). The results of the study supported the hypothesis for research question one, that students do perceive that they experience benefits from participating in intramural sports programs. These results are consistent with Astin's (1999b) Theory of Involvement and Tinto's (1993) Theory of Integration. Astin (1999b) argued that the greater the amount of time and energy a student chooses to devote to a program or activity, the greater the potential impact of personal development that program or activity can have on an individual student. Astin's (1999b) theory proposed that athletic involvement [intramural sports programs] is associated with satisfaction with student friendships, which would be directly related to the six highest reported mean scores for

the social benefits statements in the current study. Tinto's (1993) theory states that participation in intramural sports programs has a positive affect on a student's sense of social belonging in a campus setting. Tinto's (1993) Theory of Integration aligns directly with the six highest reported mean scores for the social benefits statements in the current study.

This study identified the six highest social benefit statements based on mean scores that students perceived they experienced the most while participating in intramural sports programs. These six social benefit statements were "Allows me to bond with my teammates" ($M = 4.28$, $SD = 0.606$), "Improves my social relations" ($M = 4.21$, $SD = 0.628$), "Improves my overall happiness" ($M = 4.19$, $SD = 0.740$), "Improves my ability to work within a team" ($M = 4.17$, $SD = 0.761$), "Adds to social bonding and support" ($M = 4.15$, $SD = 0.730$), and "Reduces social alienation" ($M = 4.10$, $SD = 0.704$). Five of these six highest social benefit statements are from the social group bonding benefits category and one statement stems from the personal social benefits category.

The reported mean scores of the two highest social benefits statements, "Allows me to bond with my teammates" ($M = 4.28$, $SD = 0.606$) and "Improves my ability to work within a team" ($M = 4.17$, $SD = 0.761$), further add to the research of how students perceive their experiences while participating in intramural sports programs. Belch, Gebel, and Maas (2001) stated that extracurricular activities [intramural sports programs] provide viable opportunities for students to interact, which leads to a stronger development of social skills and personal integration into the college community. Wankel and Berger (1990) also concluded that participating in intramural sports programs draws teammates closer together. Tinto (1987) proposed that the degree of

success students have in their pursuit of higher education is directly influenced by "the quality of individual interactions with other members of the institution" (p. 45). The results of the current study further support this previous research.

The results of the social benefits statements of "Improves my social relations" ($M = 4.21$, $SD = 0.628$) and "Adds to social bonding and support" ($M = 4.15$, $SD = 0.730$) further support the research claim by Dalgran (2001). Dalgarn (2001) stated that intramural sports programs create "opportunities for interaction, collaboration, and unification which are essential if campuses are to develop a sense of community" (p. 66). Wade (1991) confirmed that an essential component for student success is to feel a sense of community within the college environment. Elkins, Forrester, and Noel-Elkins (2011) asserted that, based on research, intramural sports programs have significantly influenced student retention rates by creating a sense of community for college students. Results from the current study add to the findings that students perceive that participating in intramural sports does help them to improve social relations with peers and experience social bonding.

The fifth social benefits statement from the social group bonding category that reported one of the highest mean scores was "Reduces social alienation" ($M = 4.10$, $SD = 0.704$). This result is consistent with Tinto's (1987) research regarding social isolation. Tinto (1987) argued that "in the social realm of campus life, extracurricular activities [intramural sports programs] among many others are used to break down the sometimes overwhelming sense of isolation that newcomers to large campuses commonly experience" (p. 199). Windschitl (2008) stated that "recreational sports programs, particularly intramural sports, provide a powerful medium for student interaction" (p. 21),

which would reduce an individual's social alienation. Bryant et al. (1995) proposed that, except for structured freshmen programs, campus recreation programs [intramural sports] may be the common bond between students. Cheng's (2004) research also supports the current study. Cheng (2004) stated that students who participate in intramural sports programs experience a decrease in individual loneliness. The results of this study provide further data regarding how students perceive their participation in intramural sports programs influences their sense of college community through reduced feelings of social alienation.

Similarly, as five of the highest reported mean scores were from the social group bonding category, social integration plays a vital role in how students feel about their college environment (Tinto, 1987). Therefore, social group bonding, or social integration, should continue to be researched to help improve the understanding of student's perception of the college experience, and, ultimately, influence college retention rates and personal academic success (Forrester, 2015; Garland, 1985; Swail, 2004). College administrators, specifically intramural sports directors, must learn how students adjust both socially and academically in college in order to improve college retention rates (Christie & Dinham, 1991). While it is considered the student's responsibility to be socially engaged on a college campus, it is one of the institution's responsibilities to provide quality programs, such as intramural sports programs, that attract students to participate and be engaged (Sturts & Ross, 2013).

Kerr and Downs Research (2002) concluded that the perceived benefits that were closely associated with participating in recreational activities [intramural sports] include an overall emotional well-being, overall happiness, and improvement in self-confidence.

Therefore, findings from the Kerr and Downs Research (2002) support the findings from the current study that the personal social benefits of "Improves my overall happiness" ($M = 4.19$, $SD = 0.740$) is one of the key social benefits statements. Results of this current study are also consistent with Astin's (1999b) theory, which states that students who are actively involved in personal development, such as through intramural sports programs, experience greater satisfaction and happiness. In order to further promote overall happiness, college administrators should focus on providing increased opportunities for student interaction through intramural sports programs.

Discussion of Hypothesis 2

The alternative hypothesis for research question two, "Are there differences in the perceived benefits based on demographics for those who participate in intramural sports programs while living on-campus and those who participate in intramural sports programs while living off-campus?," stated that the data will show that the group means are statistically different. This hypothesis was confirmed through three different statistical analyses, which includes analysis by gender, analysis by resident status, and analysis of female students living on-campus versus female students living off-campus. Statistically significant results will be discussed. The one demographic analysis that did not confirm this hypothesis was for male students living on-campus versus male students living-off campus. Despite no significant difference between male students living on-campus and male students living-off campus, the results are still important because intramural sports directors can primarily focus on the benefits that males students reported overall.

Discussion of Social Benefits Statements by Gender

The results from an independent sample *t*-test showed there was a significant difference for gender, $t(216) = -2.96$, $p<0.01$, with female students reporting higher mean scores for the social benefits statements than male students. Female students (n = 89) who participated in this study reported higher mean scores for 22 of the 23 social benefits statements than compared with male students (n = 130). Results from this analysis of the study support previous studies, which state that female students generally report more satisfaction in recreational activities [intramural sports programs] than male students (Kovac & Beck, 1997; Sturts & Ross, 2013). Sturts and Ross (2013) conducted research on social outcomes of intramural sports participation using an adapted version of the Artinger et al. (2006) Social Benefits Questionnaire and concluded that female students indicated higher mean scores for the social benefits statements, which is consistent with the results of the current study.

An independent sample *t*-test between male students and female students revealed that there were statistically significant differences for six of the social benefits statements. One of the social benefits statements that reported a statistically significant difference was "Increases my community involvement," $t(217) = -3.232$, $p <0.01$. Male students (n = 130) reported a mean score of 3.65 ($SD = 0.895$) and female students (n = 89) reported a mean score of 4.03 ($SD = 0.790$). This is consistent with the research by Kovac and Beck (1997), which concluded that female students are motivated to participate in intramural sports programs for a wide variety of reasons, which include social and community benefits.

A second statistically significant difference for one of the social benefits statements from an independent sample *t*-test was in response to "Increases my satisfaction with my university experience," $t(217) = 0.703$, $p < 0.001$, with male students reporting a higher mean score than female students. Male students (n = 130) reported a mean score of 3.68 ($SD = 1.148$) and female students (n = 89) reported a mean score of 3.56 ($SD = 1.430$). This also aligns with the research conducted by Kovac and Beck (1997), which concluded that male students are motivated to participate in intramural sports for personal benefits.

One of the goals of the current study was to add to the body of research regarding female students and their perceived benefits of participation in intramural sports programs. As previously indicated, "literature is sparse" (p. 37) regarding female participants in intramural sports programs (Sturts & Ross, 2013). Results of this study regarding perceived benefits by female students provide greater understanding to the benefits female students perceive they attain while participating in intramural sports programs. Results from this study are significant for intramural sports programmers when designing programs and marketing materials for students. Understanding how female students perceive the benefits of participating in intramural sports programs should guide the decision-making processes for programs and marketing materials. Programs and marketing materials should highlight some of the perceived benefits students, especially female students, may experience if they choose to participate in intramural sports programs.

Discussion of Social Benefits Statements by Resident Status

Results from an independent sample *t*-test showed that there was a moderate significant difference for resident status, $t(215) = -2.09$, $p < 0.05$, with students living on-campus reporting higher mean scores for the social benefits statements than students living off-campus. Students living on-campus reported higher mean scores for 22 of the 23 social benefits statements than students living off-campus. These findings are consistent with previous research. Astin (1999b) reported that "it is obvious that students who live in residence halls have more time and opportunity to get involved in all aspects of campus life" (p. 523).

Students living on-campus (n = 76) and students living off-campus (n = 142) reported highest mean scores for the same five perceived social benefits statements. These statements were: "Allows me to bond with my teammates," "Improves my social relations," "Improves my ability to work within a team,"* "Adds to social bonding and support,"* and "Improves my overall happiness." Data from the Your First College Year Survey conducted by the UCUES (2004) indicated that students living on-campus tend to be more engaged in the campus community, have greater access to campus services, and are more likely to participate in campus program. Therefore, the hypothesis of this study stated that there would be a difference in mean scores between students living on-campus and students living off-campus.

However, the data resulted in only one social benefits statement that revealed a statistically significant difference in response to "Improves my leadership abilities," $t(216) = 1.442$, $p < 0.05$. Students living on-campus reported a mean score of 3.72 ($SD = 0.776$) and students living off-campus reported a mean score of 3.55 ($SD = 0.888$). This

statistically significant social benefits statement is consistent with the research. This research data supports Moffitt (2010), who theorized that students who choose to participate in intramural sports programs may experience increased leadership potential. Kerr and Downs Research (2002) cited leadership skills as one of the key areas of individual development that students gain through participating in intramural sports programs. NIRSA (2004) highlighted that some of the leadership skills students may develop are a sense of belonging, respect for others, and group cooperation skills.

Since students living on-campus reported higher mean scores for the social benefits statements than students living off-campus, it is imperative that university administrators and intramural sports programs directors find ways to engage students living on-campus. Specific to OSU, the majority of students living on-campus are freshmen because of the housing policy (Office of Undergraduate Admission, 2016). Intramural sports programs are an avenue that can facilitate a sense of belonging to help new freshmen feel integrated into the campus community and increase their commitment to persist to graduation (Bryant et al., 1995; Tinto, 1993; Christie & Dinham, 1991; Dalgarn, 2001). Marketing efforts and programming in collaboration with residential life should focus on involving these students living on-campus in intramural sports programs.

Discussion of Social Benefits Statements for Female Students Grouped by Resident Status

Results of a two-way ANOVA showed that there was a statistically significant difference in perceived benefits between female students living on-campus and female students living off-campus for 12 of the social benefits statements at $p < 0.05$. Of these 12 statistically significant statements, all four statements in the cultural benefits category

were included, as well as all four statements from the university integration benefits category. The other four statements included three of the social group bonding benefits statements and one personal social benefits statement. Female students living on-campus reported higher mean scores for 22 of the 23 social benefits statements than female students living off-campus. This response is consistent with research that states that students living on-campus report benefits significantly higher than students living off-campus (Artinger et al., 2006).

Results showing that female students living on-campus indicated higher mean scores for the university integration benefits category is consistent with the literature, which indicated that students living on-campus reported feeling more integrated with the campus community (UCUES, 2004). There was a statistically significant difference for the social benefits statement of "Increases my community involvement," $F(2, 85) = 13.864$, $p < 0.001$. Female students living on-campus reported a mean score of 4.42 ($SD = 0.564$) and female students living off-campus reported a mean score of 3.80 ($SD = 0.818$). These results support the Elkins et al. (2011) research which suggests the more opportunities students have to participate in campus activities, which would include intramural sports programs, the "more likely they are to feel a part of their community and to become productive contributors" (p. 26).

Another statistically significant difference showed for the social benefits statement of "Improves my ability to socially interact,"* $F(2, 85) = 7.840$, $p < 0.01$. Female students living on-campus reported a mean score of 4.42 ($SD = 0.564$) and female students living off-campus reported a mean score of 3.95 ($SD = 0.840$). Bryant et al.

(1995) suggested that recreation programs [intramural sports programs] enhance a student's sense of well-being and improve a student's communication abilities.

In response to the social benefits statement of "Improves my ability to work with a diverse group", a two-way ANOVA showed there was a statistically significant difference in perceived benefits between female students living on-campus and female students living off-campus, $F(2, 85) = 6.534$, $p = 0.05$. Female students living on-campus reported a mean score of 4.23 ($SD = 0.617$) and female students living off-campus reported a mean score of 3.89 ($SD = 0.562$). These results also support the research conducted by Bryant et al. (1995) which suggested that recreation programs [intramural sports programs] enhance the participant's tolerance of cultural differences.

A two-way ANOVA showed that there was a statistically significant difference in perceived benefits between female students living on-campus and female students living off-campus in response to the social benefits statement of "Improves my ability to work within a team"* $F(2, 85) = 5.992$, $p = 0.05$. Female students living on-campus reported a mean score of 4.58 ($SD = 0.502$) and female students living off-campus reported a mean score of 4.18 ($SD = 0.834$). This result is consistent with what Buccholz (1993) proposed. Buccholz (1993) concluded that students who participate in recreational programs [intramural sports programs] choose to do so because of the desire to interact with other students. Tinto (1987) argued that "the quality of individual interactions with other members of the institution" (p. 45) has a significant impact on a student's individual success, which would include their ability to work within a team. Frequent, quality interactions may create a sense of community and may translate into the development of individual social skills (Tinto, 1993).

It is important for university administrators to understand that female students living on-campus perceive that they are integrated into the university through participation in intramural sports and that they perceive they receive cultural and social group bonding benefits. Based on Tinto (1993), these reported higher mean scores for social benefits statements may mean that female students living on-campus are more likely to stay at the university longer and are more likely to persist to graduation. Astin's (1999b) research contends that overall satisfaction with the college experience is affected by a decision to participate in intramural sports programs. Therefore, it is important for administrators to actively involve female students in planning quality programs and activities.

Discussion of Social Benefits Statements for Male Students Grouped by Resident Status

A two-way ANOVA did not report any statistically significant differences between male students living on-campus and male students living off-campus. However, these two groups did report similar high mean scores. The five highest reported mean scores included three social group bonding benefits statements, one personal social benefits statement, and one reliable alliance benefits statement. Both male students living on-campus and living off-campus reported the highest mean score in response to the social benefits statement of "Allows me to bond with my teammates." Male students living on-campus (n = 44) reported a 4.23 mean score ($SD = 0.522$) and male students living off-campus (n = 86) reported a 4.26 mean score ($SD = 0.578$). These results add to the research that states the more opportunities for students to participate in campus

activities, the more likely they are to feel a part of the campus community and to feel connected with peers (Elkins et al., 2011).

Another finding that adds to the understanding of perceived social benefits among both male students living on-campus and living off-campus was reported through a higher mean score in response to the social benefits statement of "Improves my overall happiness." Male students living on-campus (n = 44) reported a 4.20 mean score (*SD* = 0.668) and male students living off-campus (n = 86) reported a 4.17 mean score (*SD* = 0.723). This is directly connected to Astin's (1993) theory that student participation in extracurricular activities [intramural sports] is related to how students feel about their overall satisfaction with the college experience. Astin's (1993) theory further states that "involvement variables showing positive associations with satisfaction with campus life lean heavily toward student interaction and social life" (p. 284) and include "participating in intramural sports" (Astin, 1993, p. 284). This current study directly supports this claim that one of the perceived benefits of participating in intramural sports programs is an increased personal level of happiness.

Research stated that students living on-campus generally reported higher mean scores in response to the social benefits statements (Artinger et al., 2006). Other research studies showed that students who live on-campus are more likely to be engaged in campus activities, which would include intramural sports programs (UCUES, 2004). Results from this study found that male students living off-campus (n = 86) reported higher mean scores for twelve of the social benefits statements, male students living on-campus (n = 44) reported higher mean scores for ten of the social benefits statements, and both groups reported the same mean score for one social benefits statement. One reason

the results of the current study may be different from the previous research is the number of respondents. As previously noted, male students living off-campus had more participants in the study than any other specific group.

Limitations

There are a number of important limitations that should be considered when interpreting the results of this study. First, a factorial analysis was performed on the Artinger et al. (2006) Social Benefits Questionnaire; however, the five sub categories reported weak relationships. The overall scale is reliable however the sub categories are tenuous at best. Second, validity testing for the instrument could not be found. Therefore, this is a limitation because this study is unsure if is measures what it claimed to measure. The Artinger et al. (2006) Social Benefits Questionnaire needs further psychometric analysis. Third, analyzing the individual questions may increase the Type I error rate.

Additionally, limitations exist within this study in terms of external validity. With a limited sample frame including only full-time undergraduate students at OSU, the capacity to generalize findings to other college populations should be done cautiously as differences in demographics of the student body may make it difficult to extrapolate findings. Future research using the same measure with various student populations or multiple universities will increase the capability to generalize findings across subgroups.

Due to the research study being conducted during a summer academic semester, the response rate was lower than the study might otherwise have attained. The researcher for this study expected a response rate of 10% to 15%, or 365 to 548 responses. However, as reported previously, the study included only 220 completed surveys, a

response rate of 6%. If the data were collected during a fall or spring academic semester, perhaps a larger response would have been generated.

The amount of time that elapsed between students' participation in an intramural sports program and the survey is a limitation of the study. The results and discussion regarding intramural sports programs participation relied heavily on the participants' ability to recollect which benefits they perceived they attained while participating in intramural sports during the fall 2015 and spring 2016 semesters. The study was also limited to the participants who were willing and able to complete the web-based survey. Additionally, some of the student participants may have changed housing status during the fall 2015 or spring 2016 semesters which could affect the results of perceived benefits of students living on-campus versus off-campus. Future research should consider asking additional demographic questions to address this limitation.

Despite the limitations to this study, the findings offer beneficial information to college administrators and researchers examining perceived benefits of participating in intramural sports programs. The results of this study provide essential information to those who oversee and administer intramural sports programs. Furthermore, the results of this study have added to the body of research regarding students' perceived benefits of participation, specifically providing data as perceived by gender and perceived by students who live on-campus versus off-campus.

Recommendations for Future Research

Suggestions for further research include replicating the study and collecting more background information, including number of intramural sports played and reasons for participation. While using Qualtrics (2015) for data collection proved useful for the

study, future researchers may want to consider distributing questionnaires in-person during intramural sports programming. It may also be beneficial to collect data for a larger period of time. Colleges offer various types of intramural sports throughout the year that attract different types of students who may perceive benefits differently. A larger collection period, or even an on-going collection period, would allow future research to address a larger variety of intramural sports.

Of the 220 responses, 85 participants (38.6%) were from the Greek community. Based on this large participation from the Greek community, further research could be done on their perceived benefits of intramural sports participation. Additionally, it is recommended that the perceived outcomes for international students receive greater research attention. This study did not include specific international demographic student questions, rather it only included ethnic/racial identification. In this current study, students reported low mean scores for the cultural benefits statements while participating in intramural sports. A recommendation for future research would be to conduct a study designed for international student participants to determine their perceived benefits and their perceptions of participating in intramural sports. Also, in regard to student demographics, future research could be conducted on perceived benefits by student classification, or as a comparison of undergraduate students to graduate students.

The results of this study support the need for future research with regard to the long-term benefits of participating in college recreational activities [intramural sports programs]. Further research on how these perceived benefits affect students beyond the college years is a valid area of study. Because undergraduate students report high mean scores for social benefits statements (Artinger et al., 2006; Sturts & Ross, 2013), another

recommendation for future research is to conduct a social benefits study between undergraduate students who choose to participate in intramural sports programs and undergraduate students who choose not to participate in intramural sports programs. Examining the perceived social benefits differences between these two groups would further allow administrators to understand how to recruit and retain students who have not participated in intramural sports programs.

Conclusion

As intramural sports programs continue to grow and develop on college campuses, it is critical for college administrators to understand the perceived benefits that students associate with participating in these programs. Research shows that students who choose to participate in intramural sports programs feel a sense of community within the institution (Hall, 2006; Tinto, 1993) and are more likely to report feeling an overall positive satisfaction with their college experiences (Downs, 2003), which may help them persist at the university through graduation (Tinto, 1975). The results of this study provided insights into the perceived benefits of intramural sports participation of undergraduate students at Oklahoma State University.

Analysis and discussion of the data from this study may be most useful to college administrators when planning programming and marketing efforts for students participating in intramural sports programs. "The effectiveness of the undergraduate experience relates to the quality of campus life and is directly linked to the time students spend on campus and the quality of their involvement in activities" (Boyer, 1987, p. 180). Intramural sports programs are a vital opportunity for students to spend quality time on campus and provide an avenue for students to learn outside of the classroom (NIRSA, 2013a). Intramural sports programs also provide an opportunity for college

administrators to help college students develop physically and holistically (Chickering, 1976; Mull et al., 1997).

As the results of this study and other studies show, understanding the perceived benefits among male students and female students participating in intramural sports programs allows college administrators to cater programs and activities to specific groups. However, limited studies have previously been conducted analyzing the specific demographics of gender and resident status. This research study has provided further insights into the perceived benefits of participating in intramural sports programs among female students living on-campus, female students living off-campus, male students living on-campus, and male students living-off campus. Understanding the perceived differences among these groups will better guide the decision-making process of programming and marketing to these individual students. Further, the research in this study should prove to be extremely important for college administrators to valuing the multitude of perceived benefits that may be experienced between gender and resident status as these benefits satisfy the needs and desires of current students.

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APPENDICES

APPENDIX A

Student Survey Questionnaire

Section 1: Demographic Questions

1. What is your gender?

    - o Female
    - o Male
    - o Other: _____

2. What is your age?

    - o 18
    - o 19
    - o 20
    - o 21
    - o 22
    - o 23
    - o 24
    - o 25+

3. What was your resident status during the spring 2016 semester?

    - o On-campus
    - o Off-campus (including Greek Housing)
    - o Other: _____

4. What was your classification on campus during the spring 2016 semester?

    - o Freshman
    - o Sophomore
    - o Junior
    - o Senior
    - o Other: _____

5. What is the racial/ethnic group(s) with which you identify? Check all that apply.

- o American Indian/Alaskan Native
- o Asian
- o Black or African American
- o Hispanic
- o Native Hawaiian/Pacific Islander
- o White
- o Multiracial
- o Racial identity unknown
- o I prefer not to report my race/ethnicity
- o Other: _____

6. Were you a member of the Greek community during the 2015-2016 academic school year? Check one.

- o Fraternity
- o Sorority
- o Not a member of the Greek community

Section 2: Benefits of Participation

Using a 5-point scale where 5 is strongly agree and 1 is strongly disagree, please select the number for each of the following statements to describe your opinion on the benefits gained and associated with your intramural sports participation.

In your opinion, participation in intramural sports:

1. Improves my leadership abilities

    1. Strongly disagree
    2. Disagree
    3. Neutral
    4. Agree
    5. Strongly agree

2. Reduces social alienation

    1. Strongly disagree
    2. Disagree
    3. Neutral
    4. Agree
    5. Strongly agree

3. Did not improve my sense of belonging within the university

    1. Strongly disagree
    2. Disagree
    3. Neutral
    4. Agree
    5. Strongly agree

4. Improves my ability to work with a diverse group

    1. Strongly disagree
    2. Disagree
    3. Neutral
    4. Agree
    5. Strongly agree

5. Did not increase my sense of trust in my peers

    1. Strongly disagree
    2. Disagree
    3. Neutral
    4. Agree
    5. Strongly agree

6. Does not allow me to better understand myself

    1. Strongly disagree
    2. Disagree
    3. Neutral
    4. Agree
    5. Strongly agree

7. Improves my social relations

    1. Strongly disagree
    2. Disagree
    3. Neutral
    4. Agree
    5. Strongly agree

8. Does not increase my satisfaction with my university experience

    1. Strongly disagree
    2. Disagree
    3. Neutral
    4. Agree
    5. Strongly agree

9. Improves my understanding of different cultures

    1. Strongly disagree
    2. Disagree
    3. Neutral
    4. Agree
    5. Strongly agree

10. Does not increase my commitment to my peers

1. Strongly disagree
2. Disagree
3. Neutral
4. Agree
5. Strongly agree

11. Improves my overall happiness

1. Strongly disagree
2. Disagree
3. Neutral
4. Agree
5. Strongly agree

12. Does not improve any ability to work within a team

1. Strongly disagree
2. Disagree
3. Neutral
4. Agree
5. Strongly agree

13. Improves my sense of responsibility to my university

1. Strongly disagree
2. Disagree
3. Neutral
4. Agree
5. Strongly agree

14. Does not increase my willingness to learn about diverse cultures

1. Strongly disagree
2. Disagree
3. Neutral
4. Agree
5. Strongly agree

15. Does not improve my self-confidence

1. Strongly disagree
2. Disagree
3. Neutral
4. Agree
5. Strongly agree

16. Increases my willingness to perform at my best potential

1. Strongly disagree
2. Disagree
3. Neutral
4. Agree
5. Strongly agree

17. Increases my community involvement

1. Strongly disagree
2. Disagree
3. Neutral
4. Agree
5. Strongly agree

18. Does not add to social bonding and support

1. Strongly disagree
2. Disagree
3. Neutral
4. Agree
5. Strongly agree

19. Does not raise my tolerance of different cultures

1. Strongly disagree
2. Disagree
3. Neutral
4. Agree
5. Strongly agree

20. Increases my awareness of time management

1. Strongly disagree
2. Disagree
3. Neutral
4. Agree
5. Strongly agree

21. Increases my feeling of self-worth

1. Strongly disagree
2. Disagree
3. Neutral
4. Agree
5. Strongly agree

22. Did not improve my ability to socially interact

1. Strongly disagree
2. Disagree
3. Neutral
4. Agree
5. Strongly agree

23. Allows me to bond with my teammates

1. Strongly disagree
2. Disagree
3. Neutral
4. Agree
5. Strongly agree

Survey Legend

The following is a breakdown of the survey:

Statements number 1, 6, 11, 15, 21 all deal with personal social benefits (2 negatively worded statements that require reverse coding)

Statements number 4, 9, 14, 19 all deal with cultural social benefits (2 negatively worded statements that require reverse coding)

Statements number 3, 8, 13, 17 all deal with university integration related social benefits (2 negatively worded statements that require reverse coding)

Statements number 2, 7, 12, 18, 22, 23 all deal with social group bonding benefits (3 negatively worded statements that require reverse coding)

Statements number 5, 10, 16, 20 all deal with reliable alliance benefits (2 negatively worded statements that require reverse coding)

APPENDIX B

Oklahoma State University Institutional Review Board

Date:	Thursday, July 21, 2016
IRB Application No	ED16124
Proposal Title:	Examining the benefits of intramural sports participation of undergraduate students at Oklahoma state University
Reviewed and Processed as:	Exempt

Status Recommended by Reviewer(s): Approved Protocol Expires: 7/20/2019

Principal Investigator(s):

Jason Linsenmeyer
Stillwater, OK 74078

Tim Passmore
186 Colvin Center
Stillwater, OK 74078

The IRB application referenced above has been approved. It is the judgment of the reviewers that the rights and welfare of individuals who may be asked to participate in this study will be respected, and that the research will be conducted in a manner consistent with the IRB requirements as outlined in section 45 CFR 46.

☐ The final versions of any printed recruitment, consent and assent documents bearing the IRB approval stamp are attached to this letter. These are the versions that must be used during the study.

As Principal Investigator, it is your responsibility to do the following:

1.Conduct this study exactly as it has been approved. Any modifications to the research protocol must be submitted with the appropriate signatures for IRB approval. Protocol modifications requiring approval may include changes to the title, PI advisor, funding status or sponsor, subject population composition or size, recruitment, inclusion/exclusion criteria, research site, research procedures and consent/assent process or forms
2.Submit a request for continuation if the study extends beyond the approval period. This continuation must receive IRB review and approval before the research can continue.
3.Report any adverse events to the IRB Chair promptly. Adverse events are those which are unanticipated and impact the subjects during the course of the research; and
4.Notify the IRB office in writing when your research project is complete.

Please note that approved protocols are subject to monitoring by the IRB and that the IRB office has the authority to inspect research records associated with this protocol at any time. If you have questions about the IRB procedures or need any assistance from the Board, please contact Dawnett Watkins 219 Scott Hall (phone: 405-744-5700, dawnett.watkins@okstate.edu).

Sincerely,

Hugh Crethar, Chair
Institutional Review Board

APPENDIX C

Introductory Email

Dear OSU Student,

Oklahoma State University invites you to participate in a research study on the benefits of participation in intramural sports. The intent of this study is to investigate what benefits are associated with participating in an intramural sport activity.

Participation in this study will require 5-10 minutes of your time. The questionnaire is 29 items in length assessing participation in intramural sports. You are kindly requested to answer all of the questions about your experience with intramural sports.

Your responses will be kept completely anonymous. Your identity will not be known. This questionnaire is designed for undergraduate students 18 years of age and older. If you do not meet the minimum age requirement, please do not complete the questionnaire.

There are no known risks associated with this project that are greater than those encountered in daily life.

Your participation is entirely voluntary. You can at any time withdraw from this study by simply closing your browser or exiting the questionnaire. Information gathered from this study may be published in journals and/or presented at conferences.

If you choose to participate in this study please click the link below to access the questionnaire. As a thank you for your help with this research study, you will be eligible to enter a drawing to win one of three $50 Academy Sports gift cards. After completing the survey, please send an email with your preferred method of contact (email or cell phone number) to osuintramuralsurvey@gmail.com. This contact information will be confidential and will not be linked to your survey responses. This information will only be used to contact the three winners of the $50 Academy Sports gift cards. Winners will be contacted within a week of the completion of the five week survey period.

Please complete this survey by Monday, August 29, 2016.

Click on the survey link or copy and paste the URL into your browser to access the survey.

https://okstatecoe.az1.qualtrics.com/SE/?SID=SV_4SdwuupgUTrwhq5

Thank you for your help with this study. If you have any questions, please contact me.

Jason Linsenmeyer
Health, Leisure, and Human Performance, Ph.D Student

College of Education
Oklahoma State University
104 Colvin Center
Stillwater, OK 74078
(405) 744 – 5577
jasonjl@okstate.edu

Or

Timothy Passmore, Ph.D
College of Education
Oklahoma State University
181 Colvin Center
Stillwater, OK 74078
(405) 744 – 1811
tim.passmore@okstate.edu

Or

If you have any questions about your rights as a research volunteer, contact:
OSU IRB Office
223 Scott Hall
Stillwater, OK 47078
(405) 744 – 3377
irb@okstate.edu

APPENDIX D

Follow-Up Email

This is a friendly reminder that Oklahoma State University invites you to participate in a survey about the benefits of participation in intramural sports. The intent of this study is to investigate what benefits are associated when participating in an intramural sport activity.

If you have already completed the survey, thank you! If not, this survey is available online and will take about 5 to 10 minutes of your time. The questionnaire is 29 items in length assessing participation in intramural sports. The survey for this study is based on the Artinger et al. (2006) Social Benefits Questionnaire. You are kindly requested to answer all of the questions about your experience with intramural sports.

There are no known risks associated with this project that are greater than those encountered in daily life.

Your participation is entirely voluntary. You can at any time withdraw from this study by simply closing your browser or exiting the questionnaire. Information gathered from this study may be published in journals and/or presented at conferences.

If you choose to participate in this study please click the link below to access the questionnaire. As a thank you for your help with this research study, you will be eligible to enter a drawing to win one of three $50 Academy Sports gift cards. After completing the survey, please send an email with your preferred method of contact (email or cell phone number) to osuintramuralsurvey@gmail.com. This contact information will be confidential and will not be linked to your survey responses. This information will only be used to contact the three winners of the $50 Academy Sports gift cards. Winners will be contacted within a week of the completion of the five week survey period.

Please complete this survey by Monday, August 29, 2016.

Follow this link to the Survey:
https://okstatecoe.az1.qualtrics.com/SE/?SID=SV_4SdwuupgUTrwhq5

Thank you for your help with this study. If you have any questions, please contact me.

Jason Linsenmeyer
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If you have any questions about your rights as a research volunteer, contact:
OSU IRB Office
223 Scott Hall
Stillwater, OK 47078
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irb@okstate.edu

VITA

Jason Jay Linsenmeyer

Candidate for the Degree of

Doctor of Philosophy

Thesis: EXAMINING THE PERCEIVED BENEFITS OF INTRAMURAL SPORTS PARTICIPATION OF UNDERGRADUATE STUDENTS AT OKLAHOMA STATE UNIVERSITY

Major Field: Health, Leisure, and Human Performance

Biographical:

Education:
Completed the requirements for the Doctor of Philosophy in Health, Leisure, and Human Performance at Oklahoma State University, Stillwater, Oklahoma in December, 2016.

Completed the requirements for the Master of Science in Sports Administration at University of Southern Mississippi, Hattiesburg, MS in December, 2006.

Completed the requirements for the Bachelor of Science in Leisure Studies at Oklahoma State University, Stillwater, Oklahoma in December, 2002.

Experience:
Assistant Director of Recreation Programs at Oklahoma State University, Stillwater, OK, December 2014 – Present

Intramural Sports Coordinator at Oklahoma State University, Stillwater, OK, September 2006 – December 2014

Robert D. Kennedy Director of Intramural Sports at Cornell University, Ithaca, NY, August 2005 – September 2006

Professional Memberships:
NIRSA Lifetime Membership, 2002 – Present
American Red Cross CPR/AED/First Aid – Certified Instructor, 2005 – Present