1. **Title:** The Impact of Campus Recreation for College Students with Disabilities.
2. **Investigator(s):** Carlos M. Cervantes, Ph.D. (PI) and Lyn Litchke, Ph.D. (Co-PI)
3. **Background and Purpose:**

Due to the its numerous health benefits, physical activity has been identify as one of the leading health indicators and a major public health priority in the United States (United States Department of Health & Human Services [USDHHS], 2000, 2008). Furthermore, physical activity has been positively associated with academic achievement (Coe, Pivarnik, Womack, Reeves, & Malina, 2006). Unfortunately, despite its benefits, a large proportion of the United States population remains physically inactive. This is even more acute among the 54.4 million Americans with disabilities (Brault, 2008) as people with disabilities are at a higher risk for developing secondary conditions directly related to physical inactivity (Havercamp, Scandlin, & Roth, 2004; Rimmer, 2005;Rimmer & Braddock, 2002). As public health campaigns call for efforts to promote physical activity, colleges and universities appear as logic places to offer and promote physically active lifestyles among historically underserved populations such as those with disabilities.

Colleges and universities offer physical activity opportunities to campus communities as part of a wide range of services known as *Campus Recreation*. In fact, campus sports and recreational activities appear to play a major role in a student’s college experience (Promis, Erevelles, & Matthews, 2001;Tsigilis, Masmanidis, & Koustelios, 2009). Campus recreation is one of the notable aspects of an individual’s college career. Research evidence has shown that participation in campus recreational activities has a positive impact on educational experiences as well as increased student satisfaction.

The built environment and barriers to access to health, fitness, and recreation facilities have been identified as plausible factors affecting physical activity participation among individuals with physical disabilities and visual impairments (Kirchner, Gerber, & Smith, 2008;Rimmer, Riley, Wang, Rauworth, & Jurkowski, 2004). Unfortunately, according to research evidence, most fitness or health clubs in the United States tend to be inaccessible for individuals with disabilities, especially for those with mobility or visual impairments (Cardinal & Spaziani, 2003;Rimmer, Riley, Wang, & Rauworth, 2005). Interestingly, given the relatively small number of accessible outdoor physical activity environments for those with physical or visual disabilities (Riley, Rimmer, Wang, & Schiller, 2008), indoor recreation facilities, including health, fitness, and campus recreation centers appear to be a more viable alternative for people with disabilities (Rimmer et al., 2005).

As enrollment of students with disabilities continue to increase in four-year colleges and universities across the nation (Knapp, Kelly-Reid, & Ginder, 2009), little research has been done to examine the impact of campus recreation for college students with physical disabilities and visual impairments. This is particularly important as physical activity rates tend to decline during college years among this underserved population. Therefore, the overarching goal of the proposed research is to inform future efforts aimed at increasing campus recreation and physical activity participation in college students with disabilities by identifying the salient factors that may explain why or why not these students engage in campus recreation activities. In specific, the following objectives will be addressed in a sample of college students with disabilities:

* Aim 1: To characterize the physical activity patterns of college students with disabilities.
* Aim 2: To assess the usage of campus recreation among college students with disabilities.
* Aim 3: To assess the impact (e.g., perceived satisfaction and perceived outcomes) of campus recreation on college students with disabilities.
* Aim 4: To assess recreational needs and interests of college students with disabilities.
* Aim 5: To identify the socio ecological factors that may influence campus recreation and physical activity participation among college students with disabilities.

**IV. Human Subject Interactions**

1. **Sources of Potential Participants:**

All participants will be recruited from the *Office of Disability Services (ODS) Mailing List* at Texas State University-San Marcos. It is expected to include all possible students with disabilities who are in attendance at this institution. Currently, based on *FY2009* information, there are 981 students with disabilities receiving services under ODS at Texas State University. Out of those, 47 (4.79%) have a physical or mobility impairments and 23 (2.34%) have a vision impairment. Both students with mobility disabilities and visual impairments are the primary group of interest. The lead researcher (i.e., Dr. Carlos M. Cervantes) has previously discussed the research with the director of *Disability Services* at Texas State University (i.e., Tina Schultz) and has received full support for this research endeavor (i.e., **email communication available upon request**). For comparison, a convenience non-probability sample of college students without disabilities will also be recruited from courses taught by the researchers (i.e., PE 4323, PE 5323, REC 1317, REC 4370, REC 5325) within the Health and Human Performance department.

1. **Procedures for the Recruitment of Participants:**

Students will be invited to participate in the study through an invitation sent to their email address (**see Appendix A**). Student email addresses will be obtained through the *Office of Disability Services (ODS)* as discussed previously. Given that this is an online survey, the researcher will have limited contact with participants, other than through the email invitation to participate. The email invitation will include the names and contact information of the researchers, so that students have a person to contact with any questions or concerns. In addition, recruitment flyers will be distributed to ODS so it can be disseminated through their list serve and/or bulletin boards. To compare responses, a convenience sample of college students without disabilities will be recruited from existing courses in the department of Health and Human Performance by word-of-mouth and direct communication with researchers.

1. **Procedure for Obtaining Consent:**

Lead researcher will be responsible for soliciting and obtaining consent forms. Participants will be asked to provide their consent through a separate email invitation to participate (**see Appendix A**) from the survey questionnaire as suggested by Cho and LaRose (1999). If having the informed consent in the email only is not sufficient, a separate start page (**see Appendix B**) will be added as the first page of the online survey that allows respondents to check a box that they understand that they are providing their informed consent (Andrews, Nonnecke, & Preece, 2003). Participants will be prompted to copy consent page for their records. Participants will be given the opportunity to contact the lead researcher for questions and answers associated with the study. All participants will be assured that they can terminate their participation at any time without any consequences. In case a potential participant or participants may not be able to complete online survey due to the nature of his or her disability, the researcher will visit ODS to accommodate the needs of the participants and complete survey as interview rather than Web-based survey. Only participants with signed consent will participate in the study.

1. **Research Methods and Activities:**

Participants’ data collection will occur via an online survey that will be developed using survey monkey. Based on system specifications, IP tracking and cookies will be disabled and SSL will be enabled to meet requirements for research with humans. Online survey was chosen for convenience. Thus, participants will be informed that researcher cannot fully guarantee their responses will remain confidential. However, neither name nor other type of personal identifiers will be included in the survey to minimize breach of confidentiality. In addition to an initial email, students will be sent two reminders via email in order to increase response rate. Survey completion is estimated at no more than 15 minutes, although some students may require additional time to complete in order to accommodate unique needs.

In order to design online survey, a *focus group* of college students with disabilities will be recruited (i.e., formative research) to discuss issues with campus recreation and college students with disabilities. Initial set of questions will be developed through focus group responses and review of the literature. Subsequently, initial survey will be sent out to a panel of experts knowledgeable in the area to ensure questions completeness, efficiency, relevancy, and format appropriateness. Following, small pilot testing of the survey will be conducted that would emulate all the procedures proposed by the researcher. Finally, a last revision for typos and errors that may have inadvertently be introduced during the last revision process.

Researcher(s) will have access to the data in real-time as it is being collected through a secure, password-protected reporting site. Data encryption and other measures will ensure the security of the data. All data will be compiled in aggregate and no individual respondents will be identified. Data will be available through the online reporting site for an indefinite amount of time unless the researcher’s IRB indicates termination. Data will be analyzed using quantitative methodologies (e.g., frequency distributions, descriptive statistics). When appropriate, more advanced quantitative data analysis may take place (e.g., linear regression).

1. **Potential Risks:**

While survey research presents minimal risks, students may be uncomfortable answering some of the questions. Participation is voluntary. Students may opt to skip any questions that they do not wish to answer. If students do experience any discomfort, they will be encouraged in the email invitation to contact the researcher(s). In addition, there may be the risk for breach of confidentiality due to the nature of the study (i.e., online survey). Any information that is obtained in connection with this study, and that can be identified with the participant will remain confidential. The data collected in this study may also be reanalyzed and used in future studies and publications. Neither in the present study nor in any future analyses of these data the participants will be individually identified. The researcher will have access to the data. All the files and data relate to this study will be kept secure in a lock-key cabinet for the period of time required under IRB guidelines.

1. **Reasonably Anticipated Benefits:**

There are no tangible anticipated benefits. However, the online survey will provide a better understanding of the impact of campus recreation on the lives of college students with disabilities and will result in valuable information to inform campus recreation staff/administrators on ways to enhance programming efforts and services to address the needs of this underserved population.

1. **Incentives to Participate:**

There will be no incentives for completing the online survey. All participants will be informed that their participation or non-participation in this study is voluntary and their decision will not influence their present or future involvement with Texas State University.

1. **Sites or Agencies Involved in the Research Project:**

Research study will be conducted at Texas State University campus. Tina Schultz, *ODS Director*, has supported and agreed to this proposed research study via email communication.

1. **Review by Another IRB:**

This protocol is submitted for its approval only to Texas State University-San Marcos IRB.

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**Appendix A**

**Invitation to Participate in Study**

From: Carlos M. Cervantes, Ph.D., Assistant Professor.

Subject: The Impact of Campus Recreation for College Students with Disabilities: A Research Study.

Dear Student:

In an effort to examine the impact of campus recreation on students with disabilities, I am interested in obtaining your feedback! Below is a link to a survey that asks about your experiences at the campus recreation facility at your current university and the programs they offer (e.g., intramurals, fitness, outdoor programs, and sport clubs). It is my goal to take this information and inform campus recreation staff and administration about your experiences so already successful programs that you participate in each day or new policy may be developed. Even if you do not participate in recreational activities, I would still like to hear from you.

The survey should take approximately 15 minutes or less to complete. You can access the survey by clicking on the link below:

*[Click here–will insert this link upon approval of the survey]*

Or you can cut and paste the following link into your web browser:

*[Full link here]*

Please be assured that your answers are confidential. No individual answers will ever be identified in any report. In addition, your participation is voluntary, though I hope you will respond. **By clicking on the survey link above you are indicating your willingness to participate in this survey (i.e., consent)**.It is required that you complete the consent for research statement at the beginning of the survey. Should you have any questions about the project or my interest in using the results, I encourage you to contact at the following phone or email: Phone: (512) 245-9691 or Email: [cc85@txstate.edu](mailto:cc85@txstate.edu)

Thank you for your participation!

Carlos M. Cervantes, Ph.D., CAPE

Assistant Professor

Health and Human Performance

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**Appendix B**

**Sample Web-based Separate Start Page and Consent**

**Purpose of the study:** The purpose of this study is to assess your perceptions on the impact of campus recreation for college students with disabilities.

**What you will be asked to do in the study:** If you agree to participate, you will be asked questions regarding your experiences with campus recreation at your university as well personal and demographic information (e.g., age, gender, ethnicity, disability). You do not have to answer any question you do not wish to answer.

**Time required:** Approximately 15 minutes (one time only).

**Incentive:** There will be no incentives provided for completing the online survey.

**Risks:** The main anticipated risk to you may be discomfort in answering questions if someone near you were to view your responses. Although no more than minimal risk is expected, you should take caution before beginning the survey.

**Benefits:** Depending upon the results, this data may be used to inform campus recreation personnel members of the Texas State University about potential changes needed to be address regarding campus recreation opportunities for college students with disabilities.

**Confidentiality:** There are no personal identifiers attached to this survey or the data. There is no way of connecting you to your responses.

**Voluntary participation:** Your participation in this study is completely voluntary. You have the right to withdraw from the study at anytime without consequence. You do not have to answer any question you do not wish to answer.

**Whom to contact if you have questions about the study:**

*Principle Investigator:* Carlos M. Cervantes, Ph.D., CAPE, Assistant Professor, Texas State University-San Marcos. Phone: (512) 245-9691. Email: [cc85@txstate.edu](mailto:cc85@txstate.edu)

*Co-Investigator:* Lyn Litchke, Ph.D., Assistant Professor, Texas State University-San Marcos. Phone: (512) 245-2951. Email: [ll24@txstate.edu](mailto:ll24@txstate.edu)

**Whom to contact about your rights as a research participant in the study:**

Pertinent questions about the research, your rights as research participant, and/or any other pertinent question should be directed to the IRB chair, Dr. Jon Lasser (512-245-3413 / [lasser@txstate.edu](mailto:lasser@txstate.edu)), or to Ms. Becky Northcut, Compliance Specialist (512-245-2102) at Texas State University-San Marcos.

**Your consent to participate in this study will be implied by completing and submitting this anonymous survey.**