2010 Needs Assessment of Cal Poly Recreational Sports and Programs for Students with Mobility Impairment

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ABSTRACT

2010 NEEDS ASSESSMENT OF CAL POLY RECREATIONAL SPORTS AND PROGRAMS FOR STUDENTS WITH MOBILITY IMPAIRMENT

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In 1990, the Americans with Disabilities Act was passed, prohibiting discrimination against individuals with disablements. In 1992, Cal Poly redesigned its Recreation Center to make it accessible for all students. However, few programs exist for this population. The purpose of the study was to conduct a needs assessment of Cal Poly recreational sports and programs for students with mobility impairments. In the spring of 2010, a survey was administered and analyzed. Participants indicated their desire to recreate in both inclusive and segregated settings, programs they prefer, and their lack of knowledge about currently offered programs (Activity4All). The findings can be applied to the Recreation Center so programs can become tailored to individual needs. Cal Poly has an obligation to provide additional recreational, sport, and fitness programs to its impaired population. Inclusion and more programs should be offered to encourage change and the promotion of future activities.

Keywords: mobility-impaired, inclusive, segregated, recreation, fitness, sports, programs, disability

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Chapter 1

INTRODUCTION AND REVIEW OF LITERATURE

Background of the Study

The Americans With Disabilities Act (ADA) was passed in 1990, prohibiting discrimination against individuals with special needs. The purpose of this act is to promote universal accessibility to areas otherwise not accessible to people with disabilities so all individuals have the chance to enjoy the benefits of what life has to offer. Under the act, five major titles exist: Title I: Employment, Title IIa: State/local government, Title IIb: Transportation, Title III: Businesses/public accommodations, Title IV: Communications, and Title V: Miscellaneous. Each of these titles has specific physical and program-related requirements, allowing peoples with disabilities to have the "same privileges as other citizens" (Anderson & Kress, 2003, p. 18). Preceding this act was the Rehabilitation Act of 1973, Section 504, guaranteeing students with disabilities better access to their campuses by removing architectural barriers that would otherwise create an inability of successful programming. The ADA "further guaranteed the rights of these students" (Collins & Mowbray, 2005, p. 306). Now, effective and reasonable arrangements have to be made, with "each agency responsible for enforcing their own regulations" (Van Hoorn, 2007, p. 12). It has been because of these enactments that Cal Poly has made adjustments to its own campus, mainly the Recreation Center.

In 1992, Cal Poly completely redesigned its Recreation Center. The new structure was ADA compliant, with improved areas like hallways, elevators, stairways, and

doorways. This gave all students the ability to access all areas and facilities of the center such as locker rooms, equipment, seating, bathrooms, and the pool deck. For the first time, all students on campus were able to utilize each and every portion of the Recreation Center. According to Van Hoorn (2007), the reconstruction proved to be successful inclusion, as it completely involved people with disabilities.

Even with the new facility in place, not many campus-related programs exist for students with special needs. Only three programs exist, headed by Kinesiology Professor, Kevin Taylor. Although these programs are offered through the school, they are off-campus. The program is titled, Activity4All (A4A), which:

promotes physical activity and a healthy lifestyle within a community where disability is neutral; a community where services are integrated such that only unique and uncommon accommodations are not readily available. We envision a community in which opportunities for recreation and physical activity for citizens with disability are comparable to opportunities for the general population. (K. Taylor, personal communication, February 2010)

Taylor leads an adaptive kayaking activity for the mobility-impaired population of Cal Poly and for the community. In an effort to enhance the kayak program, a student project was conducted in which one adaptive kayak for individuals with severe quadriplegia was created. This product enables disabled individuals to easily control the vessel so they can participate in the activity. The second program Taylor is in charge of is EyeCycling. This is a bicycling activity for students with visual impairment or blindness. Both of these programs rely heavily on student and community volunteers. The last program Taylor directs is Stride, mainly for Special Olympic Athletes. According to J. Allen-Barker,

Student Specialist at Cal Poly's Disability Resource Center (DRC), there are about 700 cases of general disability (which is 4% of the population) on campus and about 13 cases of severe mobility impairments among students (Allen-Barker, personal communication, February 2010). The majority of these students do not fall into the category of visual impairment or Special Olympics, thus eliminating two of the three program options.

Students with mobility impairments lack adequate campus sports programs. According to Taylor, "there is very little being done and a great need for more to be done" (K. Taylor, personal communication, February 2010). There is also a void between non-disabled individuals on campus and individuals with special needs, due to a lack of student understanding. Through more classes that teach about special needs, a better appreciation can be achieved. Promotion for disability programs also needs to be enhanced. This would not only generate more participants, but could also spark the interests of fellow students. More involvement is the best alternative to address the situation at Cal Poly. According to De Sena, "the key to the program's success is the community commitment to adaptive recreation" (as cited in Kistler, 1993, p. 22). Utilizing the Cal Poly community's dedication to adaptive programs may be the only way the mobility-impaired population will have increased recreation opportunities on campus.

This study will be beneficial to the Recreation Center, who will be able to discover the needs and interests of their students with disabilities. This information could be applied towards new and improved programs to fit the abilities of the participants. Doing so will guarantee that the Recreation Center is being used to its fullest potential, while also delivering quality programs.

Review of Literature

The purpose of this literature review was to examine the relationship between recreational sports and individuals with disabilities. The information for the review of literature was gathered using the Robert E. Kennedy Library at California Polytechnic State University in San Luis Obispo. Databases searched included Academic Search Elite, Sport Dicus, and ProQuest Newsstand. The review has been divided into two topic sections: disabilities and recreational sports, and campus recreational sports and programs.

Disabilities and recreational sports. Recreational sport programs are beneficial for participants with disabilities because they enhance quality of life. Unlike typical populations, those who are incapable of everyday activities miss out on important, irreplaceable aspects of living. According to the US Census Bureau, "there are nearly 50 million people in the United States who experience living with a disability and the demand for recreation services by individuals with disabilities continues to increase" (Lundberg, Zabriskie, Smith, & Barney, 2008, p. 61). For this reason, activity programs should be inclusive and tailored towards everyone because "leisure is an aspect of life that is important to the welfare of every individual" (Duvdevany, 2002, p. 419). This section covers literature and completed research that focuses on opportunities of participant identity and recommendations for inclusion.

Frequently, people with disabilities are not given the same treatment as others. In 2002, Duvdevany indicated that they are "often controlled by their parents, teachers and staff workers, and they are not given sufficient opportunities to experience the empowerment that accompanies self-directed behavior," as theorized by Henderson (p.

420). These destructive influences can severely impact the way these individuals cope with everyday lives. According to a recent study of community integration, “quality of life has four domains: physical, psychological, social, and environmental” (Chun, Lee, Lundberg, McCormick, & Heo, 2008, p. 223). Creating recreational opportunities for this population brings about a positive relationship among all four of the domains. Doing so also enhances self-confidence and character. According to current disability research, “self-concept is built through interaction with one’s closet environment” (Duvdevany, 2002, p. 421). In another study involving cerebral palsy athletes, it was concluded that active sport involvement equated to an influence on this disabled population’s quality of life through participation and athletic identity (Groff, Lundberg, & Zabriskie, 2009).

There are many perspectives surrounding the participant benefits of integrated or segregated activities. An integrated team includes both physically challenged players and those who are not, while a segregated team is solely comprised of disabled participants. In a study of integrated and segregated teams, Duvdevany (2002), stated, “in general, no significant differences were found between the two groups,” (p. 426). This is because there are positives and negative experiences in each social setting, depending on the severity of the disability, the opinions of the participants, and the other participants involved. Recent studies have indicated that inclusion has benefits and helps participants to feel empowered and to make irreplaceable social connections (Anderson & Kress, 2003; Duvdevany, 2002; Groff, et al, 2009). According to Duvdevany (2002), the best form of establishing inclusion is with an ongoing process. Most importantly, this population values recreation (Stepp, 2004).

The Centers for Disease Control "recommends at least 30 minutes of moderate physical activity most days and only 15% of individuals meet this recommendation" (Mobily, 2009, p. 19). This statistic is even lower for those who have chronic disease or disability. Increasing these numbers is a goal of recreation providers, but it is difficult because of the perception that supplements labor-intensive workouts. In 1993, Wankle developed a set of non-health related exercise goals (as cited in Mobily, 2009, p. 20). Wankle's goals include: "social interaction (group identification, social reinforcement, competitive stimulation, supportive leadership, and team activities), testing skills (flow), and experiencing subjective success" (as cited in Mobily, 2009, p. 20). Integrating Wankle's theory into recreational programs would greatly enhance the success factors and attendance of the mobility-impaired population.

Campus recreational sports and programs. College campus support systems can enhance students' abilities. These services can foster a better learning environment for those who use them by facilitating everyday sport programs. According to a recent study, "disability support services can play a key role in helping students with disabilities access and remain in higher education" (Collins & Mowbray, 2005, p. 306). A steady level of exercise can drastically enhance the way disabled and non-disabled individuals mentally and physically perform everyday tasks. This section highlights the need for campus recreational programs for students with disabilities.

Adopting such programs into a curriculum can mean serious and extensive changes to the facilities and programs already offered. For Cal Poly, most of these changes have already been made. November of 1992 marked the completion of Cal Poly's new student Recreation Center. As a center that is American with Disabilities Act

(ADA) compliant, students with special needs can access and enjoy the facilities. In addition to making the establishment accessible, creating programs would be the next step to providing adaptive recreation on campus. Depending on the severity of the disability, multiple instructors and class levels would be needed to meet the needs of these individuals. According to a recent study about adaptive physical education, individualized tailoring "ranges from a little extra help in the inclusive physical education class to separate setting, one-on-one instruction," depending on the severity of the disability (Etzel-Wise & Mears, 2004, p. 223).

Many adaptive recreation programs are recommended in a university setting. A recommended program for water settings includes water aerobics for those with arthritis or disability. Another great activity for wheelchair sports is basketball. Chun et al (2003) found that playing basketball regularly helped people with physical disabilities cope with social integration, leading to higher levels of quality of life and thus, academic learning. Mobily (2009) has formulated mild to vigorous activity options. The mild activities include casual walking, croquet, and billiards. Moderate activities include golf, water aerobics (as stated previously), yoga, and gardening. Vigorous activities encompass jogging, bicycling, jumping rope, soccer, and racquetball. Mobily has designed these activities depending on the severity of the disability. All of these activities can be incorporated into a university program.

Wheelchair sports are a popular way of getting students with special needs involved in recreational activities. These sports can be inclusive or segregated. In a study pertaining to inclusive sports at South State University, "several of the respondents suggested that the university organize competitive sporting events that included both

able-bodied and disabled team members" (Promis, Erevelles, & Mathews, 2001, p. 41). It is impossible to know whether or not students would be interested in participating in an integrated sport without first conducting a needs assessment and an analysis of the target market.

Disability awareness is a way to boost student involvement. "Disability awareness curriculum seeks to facilitate positive attitudes towards individuals with disabilities in an effort to promote quality services for all individuals regardless of ability level" (Anderson & Kress, 2003, p. 62). The Cal Poly Recreation, Parks, and Tourism Administration's Therapeutic Recreation and Special Populations RPTA 252 course is one of the few classes offered that teaches students to be more comfortable with individuals with special needs. Students are taught about general guidelines, appropriate communication, and given the opportunity to log 25 hours of volunteer service with an organization of their choice. This is an optimum way of facilitating attitude change through an educational experience. Another good way to approach awareness, according to Lundberg et al. (2008), is to have individuals without disabilities participate in an activity or exercise where they simulate having a disability. Through awareness opportunities like RPTA 252, students have the chance to become more familiar with disabled populations by simulating blindness, thus increasing the likelihood of later involvement.

The inclusion process has four steps: promotion, assessment of needs, accommodation and supports, and staff training (Anderson & Kress, 2003). Program promotion is probably the most important aspect of this process, for integrated and segregated programs alike. Promotion encourages awareness and participation. Aside from the obvious welcoming statement, information should be nondiscriminatory,

describe necessary accommodations, ask for available support, have multiple formats (audiotape, flyer, brochure, etcetera), and encourage participation, regardless of ability (Anderson & Kress, 2003). If serious about installing programs for people with disablements, using promotional guidelines like these can make a difference. The reformatting of inclusion from *visability of disability* to *(in)visability of disability* makes a program seem more inclusive, thereby achieving a higher return rate (Promis et al., 2001). Promotion is an important aspect of creating any program on campus, especially those including people with special needs.

To create such programs, accommodations are needed. As stated by Etzel-Wise and Mears (2004), "the goals and methods of physical education remain the same for all individuals. The only difference is that people with disabilities need intervention at levels typical populations usually do not" (p. 225). Interventions like these usually involve adaptable equipment, skill, procedures, space, and staff/volunteers (Anderson & Kress, 2003).

All individuals need an outlet (like physical activity) to relieve themselves of everyday pressures, especially in a university setting. As stated previously, participation in recreational and leisure activities has undeniable benefits. Anderson and Kress (2003) and Promis, et al. (2001) found that personal benefits of recreation include: a more meaningful life, better physical and mental health, stress management, increased self-esteem, a balanced life, satisfaction, stronger communities, reduced alienation and antisocial behavior, stronger family ties, friendship, and an overall improvement in quality of life. As stated by Etzel-Wise & Mears (2004), there are "connections between

movement or physical activity and important educational areas such as, growth, development, learning, and behavior" (p. 223).

Summary. Physical activity is important to all individuals, especially those with disabilities. It enhances their quality of life, thus leading to many other factors, including participation in school and independence. When creating activity programs, both integrated and segregated programs benefit the individuals involved. Inclusion is also an ongoing experience and is more effective if used in steady ongoing programs or classrooms.

Implementing campus programs for people with special needs means making drastic changes to the facilities already in use. Doing so makes them ADA compliant, thus accessible to those with special needs. Once compliancy is reached, individual tailoring of programs is needed to further the process of adaptive recreation. To create disability awareness throughout the campus, courses should be offered. The goal is to facilitate a better understanding of people with disabilities. Community service is one of the best ways this can be achieved. Also, finding out if individuals would be interested in creating integrated activities could greatly enhance the inclusion process. Promotion is also part of the inclusion process, along with assessment, accommodations, and training. The benefits of physical activity are undeniable and needed, especially in a university setting. It not only enhances school performance, but the participant's quality of life.

Purpose of the Study

The purpose of this study was to conduct a needs assessment of Cal Poly recreational sports and programs for students with mobility impairments.

Research Questions

This study attempted to answer the following research questions:

1. Are there sufficient recreational and sports programs for Cal Poly students with disabilities?
2. What fitness programs for students with mobility impairments are needed on Cal Poly's campus?
3. What intramural sports programs need to be implemented at Cal Poly for the mobility impaired population?

Delimitations

This study was delimitated to the following parameters:

1. The subjects for this study were students attending Cal Poly.
2. Information for this study was gathered using a questionnaire method via email.
3. The data were collected at Cal Poly, San Luis Obispo.
4. The data were collected during spring quarter of 2010.
5. The survey consisted of questions identifying the needs and interests of campus recreational sports programs for students with disabilities.

Limitations

This study was limited by the following factors:

1. Emails might have been delivered to spam folders.

2. The survey may not represent the entire population of students with mobility impairments, considering it was completed on a voluntary basis.
3. The researcher is not a member of the population being studied, which could result in a loss of trust.

Assumptions

This study was based on the following assumptions:

1. It was assumed that the subjects have an email address and they are capable of returning the instrument.
2. It was assumed that subjects answered honestly and to the best of their ability.
3. It was assumed that respondents understood the questions asked.
4. It was assumed that the intended individuals completed the questionnaire and that the individuals had time to answer thoroughly.

Definition of Terms

The following terms are defined as used in the study:

Inclusive. Includes both physically challenged individuals and those who are not physically challenged.

Segregated. Solely comprised of disabled participants.

Chapter 2

METHODS AND PROCEDURES

The purpose of this study was to conduct a needs assessment of Cal Poly recreational sports and programs for students with mobility impairments. The chapter has been divided into four topic sections: description of subjects, description of instrument, description of procedures, and method of data analysis.

Description of Subjects

The respondents of the study were mobility-impaired students at California Polytechnic State University in San Luis Obispo. Out of the approximately 700 students registered at the Disability Resource Center, only 13 of them have severe mobility impairments. This group is the population for this study. To get the most accurate information, a census of the population was attempted. Participation was voluntary.

Description of Instrument

The instrument used in the study was a self-administered Internet questionnaire, distributed by the Disability Resource Center (Appendix A). The researcher created the questionnaire by utilizing questions derived from Costello (1992). The content of the instrument was designed to address the extent the participants' disability limits their recreational lives (question 1), the interest level in fitness and sports activities at Cal Poly (questions 2-3), preferences of inclusive or segregated programs (question 4), a description of the participants' disabilities, input regarding what Cal Poly could further

do to enhance their recreational experience (questions 5-6), whether participants believe there are sufficient sports and recreational programs on Cal Poly's campus for students with disabilities (question 7), and demographic items (questions 8-9). The questions were combinations of Likert-type scales, check all that apply and open-ended. Administration of the survey took place during the month of April 2010.

Costello (1992) tested the questionnaire for validity and reliability in 1992. Costello conducted the same study, from which these questions were derived. This survey was also field tested in the winter of 2010 by four Recreation, Parks & Tourism Administration students before the final instrument was distributed. These students were selected based on their knowledge of the topic. Supplementary to the instrument was an Informed Consent letter (Appendix B) introducing the researcher, assuring confidentiality, instructional information, and gratitude for their participation. The informed consent letter and instrument were submitted to the Cal Poly Human Subjects Committee for review and approval during the month of April 2010.

Description of Procedures

The questionnaire was field-tested on February 18, 2010. The Disability Resource Center assisted with the distribution of the instrument in spring of 2010. The staff targeted the students with mobility impairments and emailed them the questionnaire. The Disability Resource Center also guaranteed confidentiality to all individuals who participated in the survey. Although the survey was emailed, the researcher was present to answer questions via email. In case an email message was overlooked or not answered, each week a new

email with the same information was sent to gain more responses. The total number of emails sent was five.

Method of Data Analysis

The instrument was constructed to answer the research questions regarding: sufficient recreational and sports programs for Cal Poly students with disabilities, the need for fitness programs for students with mobility impairments at on Cal Poly, and intramural sports program needs at Cal Poly for the mobility impaired population.

Survey question seven answered the first research question by asking participants whether or not they believed there were sufficient recreational programs or sports programs on Cal Poly's campus for students with mobility impairments. This question was analyzed using frequency of percentages. Generally speaking, if question seven received more than half of negative responses from participants, this would indicate over half of the respondents believe a need for more programs for these students. Survey question one is supplemental to the first research question because it allows the Recreation Center to better adapt to the particular needs of the individuals with disabilities. Students were asked to rate the extent their disability debilitates them on a 4-point Likert-type scale. A mean score was calculated. Survey question four asked the participants whether they preferred recreating in an inclusive or segregated environment. This question was analyzed using frequency and percentage. Survey question five and six were open-ended and asked participants to briefly explain their disability and what Cal Poly could do to further enhance their recreational lives on campus. For questions five and six, answers were analyzed and grouped by the content according to participants'

answers.

Question two asked participants to check all Cal Poly fitness programs that they were interested in participating on campus. Answers included yoga, karate, kayaking, and others. This question was in response to the second research question. Survey question three asked participants to check all intramural sports activities at Cal Poly in that they were interested in participating; answering research question three. Both question two and three were coded individually by each of their options. This allowed for frequency of percentage examination. The final questions were demographic items, involving questions eight and nine. These questions were analyzed using frequency of percentage to determine gender and year in school.

Chapter 3

PRESENTATION OF THE RESULTS

The purpose of the study was to conduct a needs assessment of Cal Poly recreational sports and programs for students with mobility impairments. This study was conducted at California Polytechnic State University in San Luis Obispo. Thirteen Registered Disability Resource Center students qualified to be emailed the survey. The subjects were confidentially surveyed via Zoomerang.com to determine their opinions on adaptive campus recreation programs. Seven of thirteen potential subjects (53.84%) completed the questionnaire. The findings of the survey are presented in this chapter.

Subject Demographics

The following are the demographics for the students that participated in the survey. Of the seven subjects, five (71.42 %) were female and two (28.57%) were male. Three (42.85%) students were freshman, one (14.28%) was a sophomore, and three (42.85%) were juniors.

Disability Limitations

Participants were asked to indicate on a Likert-type scale, the extent their disability limits their recreational, and/or sports participation. Participants were given four options to choose from; does not limit at all, limits very little, often limits, and always limits. According to the percentages, none of the subjects believed that their disability limits anything less than often. Of the six subjects who responded to this

question, three (50.00%) respondents suggested that their impairment often limits their ability. The three (50.00%) remaining responses indicated their disability always limits their ability to enjoy activity.

Fitness and Intramural Programs

Subjects were asked whether they thought there are sufficient recreational activities available for them on campus. Answers included yes, no, and don't know. As shown in Table 1, the majority of subjects didn't know if there were sufficient programs.

Table 1

Subjects' Knowledge of Available Campus-Related Programs

Answer	*f*	%
Yes	1	14.28
No	2	28.57
Don't Know	4	57.14

Two of the nine questions in the survey represented interest levels in on-campus fitness and sports activities. Subjects were asked to specify their interest in fitness and intramural programs. Frequencies and percentages were tabulated for each response. As shown in Table 2, subjects are most interested in Pilates (57.14%), yoga (71.42%), bowling (57.14%), and kayaking (57.14%). Cal Poly is currently offering both bowling and kayaking programs, on and off campus, for these populations. Pilates and yoga are not

yet offered. Of the seven subjects, one (14.28%) specified swimming as a different fitness option.

Table 2

Subjects' Interest in On-Campus Fitness Programs

Fitness Program	*f*	%
Karate	3	42.85
Kickboxing	3	42.85
Dancing	3	42.85
Pilates	4	57.14
Yoga	5	71.42
Bowling	4	57.14
Biking	3	42.85
Kayaking	4	57.14
Swimming	1	14.28

Frequencies and percentages were also tabulated for interest levels in intramural activities. As shown in Table 3, subjects were most interested in soccer (42.85%) and bowling (42.85%). None of the subjects specified a different intramural option.

Table 3

Subjects' Interest in On-Campus Intramural Activities

Intramural Program	*f*	%
Volleyball	0	0.00
Basketball	0	0.00
Football	1	14.28
Soccer	3	42.85
Bowling	3	42.85
Other	0	0.00

Preferred Recreational Setting

Subjects were asked whether they would rather recreate in segregated settings, inclusive settings, or both. Of the seven respondents, six answered this question. The majority of subjects (66.66%) were interested in recreating in both inclusive and segregated settings. See Table 4 for a complete representation of this data.

Table 4

Inclusive versus Segregated Recreational Settings

Setting	*f*	%
Secluded	0	0.00
Inclusive	2	33.33
Both	4	66.66

Programming Needs and Additional Input

Subjects were asked to briefly describe their mobility impairment in a way that would help communicate their recreational programming needs. Responses were grouped according to similarities. Over half (57.14%) of the participants agreed that they couldn't endure strenuous activity. Three (42.85%) of the responses indicated the stress that comes with walking for long periods of time, needing frequent breaks. One (14.28%) stated the inability to properly use the left arm and leg. Three (42.85%) subjects indicated their inability to see properly.

In an open-ended question, the subjects were asked to provide additional feedback for what Cal Poly could do to provide better recreational and sports activities for students with disabilities. Of the seven subjects, three answered this question. One student mentioned the possibility of including people with disabilities (especially wheelchair bound students) in Poly Escapes. This individual also acknowledged the fact that students with disabilities need to be made aware of the adaptations that are possible with current Cal Poly programs. The second response proposed the idea of going "back to basics" with classes like yoga. The third response indicated their surprise of no archery club on campus for them, or anyone, to participate in.

Summary

The subjects have a limited lifestyle because of their disability. All of the participants either believe there are not enough recreational activities provided on campus, or, do not know of the activities available. Preferences were more frequent among fitness programs, than intramural sports. The majority of participants liked the

idea of inclusive activity environments. The results presented in this chapter are evident of the need for additional programs and awareness for the Cal Poly students with mobility impairments. A detailed summary and discussion of the pronouncements will follow in Chapter 4.

Chapter 4

DISCUSSION AND CONCLUSIONS

Summary

In 1990, the Americans With Disabilities Act was instilled, prohibiting discrimination against individuals with disabilities. In 1992, Cal Poly redesigned its Recreation Center to make it accessible for all students. Still, few programs exist for this population. The purpose of the study was to conduct a needs assessment of Cal Poly recreational sports and programs for students with mobility impairments. During the spring of 2010, data were collected from registered Disability Resource Center students with severe mobility impairments.

A literature review was conducted to examine the relationship between recreational sports and individuals with disabilities. An undeniable benefit of recreation is through an enhancement of quality of life. This includes self-confidence, character, mental ability, and identity. Recreational settings may be segregated or inclusive; both providing advantages and disadvantages. Through campus recreational sports and programs, special populations can foster a more positive learning environment, if a university is willing to make the necessary adaptations for individual needs. Depending on the severity of the disablement, multiple instructors or class levels can be implemented to foster a beneficial environment. In any case, there are many programs and activities that can be applied to a campus and can involve outside students through disability awareness courses.

The Cal Poly Disability Resource Center distributed the questionnaire and informed consent letter via email to respective students to ensure anonymity. Thirteen students qualified for the survey. Costello (1992) tested the questionnaire for validity and reliability in 1992. The study was completely voluntary. Questions on the survey answered the research questions.

Of the 13 subjects in this population, 7 completed the questionnaire. Key results include the need for adaptable fitness and intramural activities, in addition to better promotion of current and future programs. A more detailed presentation of the results is covered in the next section.

Discussion

The findings of this study illustrate the opinions of mobility-impaired students who are currently enrolled at Cal Poly. The results reveal the need for a broader range of fitness and intramural activities for the disabled population at Cal Poly. These results can be applied to the Recreation Center and related programs to make them more adaptable for this population.

The survey examines whether there are sufficient recreational and sports programs offering for the mobility-impaired population of Cal Poly, and if not, what fitness and intramural programs are of interest to these students. The general consensus is that the subjects do not think there are enough programs, and they are unaware of existing programs on campus. By indicating, “don’t know,” it is assumed that not enough information exists on available programs for these students, a potential reason for them not to recreate. Past literature stresses the importance of the inclusion process,

specifically promotion. The obliviousness of these students is consistent with past literature because of the lack of program promotion. It is through advertisement that awareness and participation can be generated. Promotion can also be linked to surrounding Cal Poly populations to create an inclusive environment. It seems that if the mobility impaired population is ignorant about adaptive programs, then other students could be too.

Past literature suggests that recreating in both inclusive and segregated settings has constructive and adverse effects on an individual. Results from the study are consistent with past literature. Students are partial to having the option of recreating in both of these settings. This suggests these students understand the undeniable benefits received from both surroundings. Past literature also suggests facilitation of student attitude change and involvement through courses like RPTA 252, Therapeutic Recreation and Special Populations. The desire to recreate in both inclusive and segregated settings is consistent with the demand for these courses because it allows students to experience an inclusive setting while also giving the mobility impaired population diverse atmospheres for recreation.

Past literature also emphasizes daily activity, as a requisite to, an individual's quality of life. This quality can include an increase of confidence, identity, and the ability to learn. The Centers for Disease Control also suggests the need for 30 minutes of daily physical activity (Mobily, 2009). All participants in the study agree that their mobility-impairment often or always limits their ability to recreate. Therefore, their ability to engage in valuable aspects of living is limited. A regular routine that includes physical activity will provide these students with opportunities to gain benefits.

The Centers for Disease Control also recommends that physical activity should at least be of moderate stature (Mobily, 2009). The survey indicates participants are more attracted to moderate activities than extreme ones. Top fitness activities of interest among participants include yoga, Pilates, bowling, and kayaking. Many physically demanding sports such as volleyball, football, and basketball are not favored. This eliminates the need to acquire adaptive accessories, such as wheelchairs for basketball.

The data illustrates that there is a demand for additional recreation and fitness programs for the mobility-impaired population. Because mobility-impaired students are the only students surveyed, it may have affected the results. A larger sample including all extensively disabled students on campus may reveal more information. From the responses generated, none were from seniors. Information from a senior or alumni pool could provide intelligence that younger students would not have had. Also, had there been more responses, a role of gender attitudes towards fitness and intramural activities would have been examined.

This project has presented information regarding recreation and fitness programs offered to Cal Poly students with a mobility impairment. These details provide guidance for future and current administrators to support and facilitate a healthy learning environment for all undergraduates.

Conclusions

Based on the findings of this study, the following conclusions are drawn:

6. There are not sufficient recreational and sports programs for Cal Poly's students with severe mobility impairments.

7. More fitness programs should be added to the Recreation Center's programs.

8. Additional intramural activities should be tailored to the needs of the mobility impaired.

Recommendations

Based on the conclusions of this study, the following recommendations are made:

1. Offer a variety of scheduled programs for the disabled population at Cal Poly. Activities should include a range of instructors and course levels tailored to the needs of the individual.

2. More promotion is required to gain awareness and involvement of disabled and other students.

3. Promote programs through Disability Resource Center newsletters, sent directly to respective populations. This should include newly developed programs and Activity4All.

4. Promote inclusion through the RPTA 252 course. Students could volunteer with newly developed activities and Activity4All. Class projects can include developing a one-quarter program offered to the disabled population on campus. Courses should be offered every quarter to ensure activity and program benefits.

5. Utilize the *Mustang Daily* to recruit people that would be interested in aiding with programs and activities by announcing on-campus meetings and email subscriptions.

6. Use terms such as, *(in)visability of disability* when advertising for student involvement.

7. Both inclusive and segregated settings should be provided for recreation.

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APPENDIXES

APPENDIX A

Questionnaire

Needs Assessment for Adaptive On-Campus Programs

Please answer the following questions to the best of your ability. All answers will be kept confidential and participation is based upon a voluntary basis. Thank you for your contribution.

1. On the scale below, please indicate the extent to which your disability limits your recreational, or sports participation (1= does not limit at all 2=limits very little 3= often limits 4= always limits)

   1 2 3 4

2. Below is a list of fitness programs at Cal Poly. Place a check next to the activities that you have an interest in participating in on campus (Check all that may apply):

_____Karate _____Yoga _____Other
_____Kickboxing _____Bowling (please specify)
_____Dancing _____Biking _____
_____Pilates _____Kayaking

3. Below is a list of intramural sports activities at Cal Poly. Place a check next to the clubs that you would like to participate in (Check all that apply):

_____Volleyball _____Soccer _____Other
_____Basketball _____Bowling (please specify)
_____Football _____

4. When recreating on campus, would you prefer to participate in programs offered specifically individuals with mobility impairments, or in an inclusive environment of all student populations?

_____Specifically for individuals with mobility impairments
_____Inclusive of individuals with and without mobility impairments
_____ Both settings

5. Please briefly describe your mobility impairment in a way that you feel would be helpful in communicating your recreational programming needs:

6. We would appreciate additional input from you concerning what Cal Poly could do to provide recreational and sports activities on campus for individuals with disabilities. Please use the space provided to describe any of your ideas.

7. Do you believe there are sufficient recreational and sports programs for Cal Poly students with disabilities? _____ Yes _____No _____Don't Know

8. What is your gender? _____Male _____Female

9. What is your year in School?
   _____Freshmen _____Sophomore _____Junior _____Senior

APPENDIX B

Informed Consent Letter

INFORMED CONSENT TO PARTICIPATE IN AN ASSESSMENT OF CAL POLY RECREATIONAL SPORTS AND PROGRAMS FOR STUDENTS WITH DISABILITIES

A research project on an Assessment of Cal Poly Recreational Sports and Programs for Students with Disabilities is being conducted by Jesseca K. Files in the Department of Recreation, Parks, and Tourism Administration at Cal Poly, San Luis Obispo. The purpose of the study is to determine the needs of Cal Poly recreational sports and programs for students with disabilities.

You are being asked to take part in this study by completing a brief survey. Your participation will take approximately five minutes during the month of March and April. Please be aware that you are not required to participate in this research and you may discontinue your participation at any time without penalty. You may also omit any questions that you would prefer not to answer.

The possible risks associated with participation in this study include a minor psychological risk. If you should experience negative psychological effects of the research, such as emotional distress, please be aware that you may contact Cal Poly Counseling Services at 756-2511, or the researcher at (916) 532-5377 or jfiles@calpoly.edu, for assistance.

Your anonymity will be protected by not including your name on the written document. Potential benefits associated with the study include increased campus recreational sports and programs in addition to a better understanding of the needs of Cal Poly recreational sports and programs for students with disabilities.

If you have questions regarding this study or would like to be informed of the results when the study is completed, please feel free to contact Jesseca K. Files and/or Bill Hendricks at (916) 532-5377 or (805) 756-1246. If you have questions or concerns regarding the manner in which the study is conducted, you may contact Dr. Steve Davis, Chair of the Cal Poly Human Subjects Committee, at 756-2754, sdavis@calpoly.edu, or Dr. Susan Opava, Dean of Research and Graduate Programs, at 756-1508, sopava@calpoly.edu.

If you agree to voluntarily participate in this research project as described, please indicate your agreement by completing and returning the survey Please keep this form for your reference, and thank you for your participation in this research.