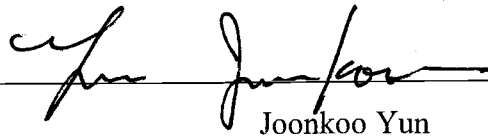


AN ABSTRACT OF THE THESIS OF

James Kirk Tabb for the degree of Master of Science in Movement Studies in Disability presented on July 9, 2002.

Title: A Survey of Physical Education Teachers' Attitudes and Knowledge About Working with Mexican Americans.

Abstract approved: _____



Joonkoo Yun

Attitude and knowledge levels of physical education teachers about working with Mexican American students and families were measured using Doyle and Chng's (1994) Mexican American Attitude and Knowledge Scale (MAAKS). Multicultural training, adapted physical education training, and other relative experiences that might affect attitude and knowledge levels were analyzed. Participants in the survey were 91 physical educators in attendance at the Northwest Conference on Children's Physical Education.

Physical educators were found to have positive attitudes and moderately high knowledge levels regarding Mexican American culture. A one-way ANOVA revealed a significant main effect for Spanish language skills on attitude scores. Teachers who indicated having the ability to speak Spanish at a level that enabled them to communicate effectively with Spanish speaking students and families were found to have significantly more accepting attitudes toward Mexican American culture than those who lacked this skill.

These findings indicate that physical educators have a good foundation of knowledge and beliefs with regard to working with Mexican Americans.

Functional Spanish language skills appear to be a critical first step in preparing physical educators to work positively and effectively with Mexican American students and families.

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A Survey of Physical Education Teachers' Attitudes and Knowledge
About Working with Mexican Americans

by
James Kirk Tabb

A THESIS
submitted to
Oregon State University

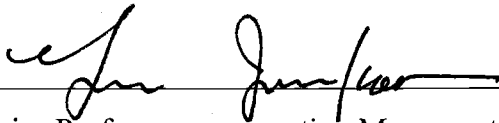
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the requirements for the
degree of

Master of Science

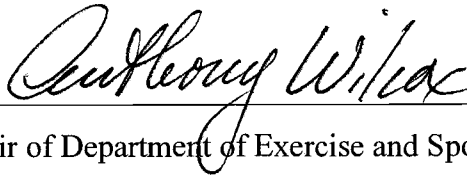
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Master of Science thesis of James Kirk Tabb presented on July 9, 2002.

APPROVED:



Major Professor, representing Movement Studies in Disability

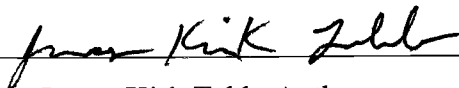


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I would like to thank committee members, Dr. Jeff McCubbin, Dr. Sharon Rosenkoetter, and Dr. Elizabeth Sulzman for their support and advice on this research project. Their guidance and encouragement have been instrumental in the completion of this work, as well as to the quality of the experience.

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Finally, to my incredible parents, Donna K. Tabb and the late Thomas H. Tabb, your love and support has been the foundation and guiding light for my work and enjoyment of life. Your friendship, advice, and infinite wisdom are everlasting. Mom, your compassion toward others is the greatest gift you could give a son. Dad, you were a man of unparalleled integrity and dedication to work and family. I feel your happiness in my accomplishments and will always share your love of challenges and adventure.

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DEDICATION

This thesis is dedicated in loving memory to my father

Thomas H. Tabb

&

in honor of my mother

Donna K. Tabb

without whom I could have never discovered my potential.

A SURVEY OF PHYSICAL EDUCATION TEACHERS' ATTITUDES AND KNOWLEDGE ABOUT WORKING WITH MEXICAN AMERICANS

CHAPTER 1: INTRODUCTION

BACKGROUND

Physical activity is essential for the health and well being of all individuals. Regular physical activity reduces the risk of developing some of the leading causes of illness and death in the United States (U.S. Department of Health and Human Services [USDHHS], 2000). Many Americans of all ages are failing to maintain the daily physical activity levels recommended by the Surgeon General's Report on Physical Activity and Health [SGRPAH], (2001). This amount can be obtained in longer sessions of moderately intense activities, such as walking for 30 minutes a day, or in shorter sessions of more intense activities, such as jogging or playing basketball for 20 minutes a day.

Approximately half of our youth ages 12-21 are not vigorously active on a regular basis. In 1997, only 15 percent of adults performed the recommended amount of physical activity, and 40 percent of adults reported no leisure-time physical activity (USDHHS, 2000). As a consequence of the high rates of physical inactivity, the number of people suffering from a host of health problems such as overweight, obesity, and diabetes is sharply on the rise (SGRPAH, 2001). In 1999, an estimated 61 percent of U.S. adults were overweight, along with 13 percent of

children and adolescents. Obesity among adults has doubled since 1980, while overweight among adolescents has tripled. (SGRPAH, 2001).

In addition to the alarming trends related to physical inactivity, Americans face a growing set of other challenges. People throughout the world, in search of a better life, are migrating to the United States. Within the next 20 years, it is projected that approximately 40 percent of public school students will be minorities (Sparks, 1994). As the U.S. becomes more culturally diverse, schools and educators must address the health and wellness needs of this multicultural population of students (Sparks, 1994).

Although there are many minority groups in the U.S. that have important health and educational needs, none appears to face as extreme a sense of urgency as does the Latino population. Latino is used here as an inclusive term that describes individuals of Mexican, Puerto Rican, Cuban, Central or South American, or other Spanish speaking origin. It should be made clear that there is a great deal of heterogeneity both among and within these groups (Rueda & Martinez, 1992). It is also important to note that 60 percent of Latinos in the U.S. are of Mexican origin (U.S. Census, 2000). Latinos are the largest and fastest growing minority group in the United States, with a projected increase of 48 percent between 1980 and the year 2000 (Fradd & Correa, 1989). If projected growth trends continue, the Latino population will be the largest minority group in the United States, reaching a projected 96.5 million people by the year 2005. This will be roughly 24 percent of

the total United States population. Latinos are also a young population, with nearly 35 percent of Latino Americans being under 18 years of age -- compared to 24 percent of Caucasian Americans and 30 percent of African Americans.

The Latino population extends the concerns of the rest of the US population in terms of poor health trends and statistics. The National Centers for Disease Control and Prevention's *Report on Adolescent and School Health* (1997) found that Latino students were significantly less likely than Caucasian students to have participated in regular vigorous physical activity. In addition, Latino students were significantly less likely to have participated on a sports team directed by their school or by organizations not affiliated with their school. While the pervasiveness of overweight and obesity has increased for both genders and across all cultures and age groups, disparities exist. The Surgeon General's Report on *Overweight and Obesity* (2001) concluded that both Latino men and women have higher rates of obesity than the rest of the U.S. population. Available evidence also shows that compared to White and African American children, Latino children have higher rates of obesity (Zambrana & Logie, 2000). It is important to emphasize the fact that regular physical activity reduces the risk of developing and dying from prevalent health problems such as heart disease, diabetes, and obesity (SGRPAH, 2001).

Promoting physical activity and healthy lifestyles in our progressively inactive society has been a constant challenge for physical educators. With the rise

of diversity in our population, including people from myriad cultural backgrounds and individuals with disabilities, comes a host of new concerns for both teachers and researchers (Banville, Desrosiers, & Genet-Volet, 2000). Understanding the nuances of different cultures in terms of their unique customs, languages, beliefs, and values, plus working with a large continuum of ability levels are at the forefront of these concerns. Multicultural awareness and cross-cultural communication skills are clearly important requirements for being a productive physical educator and advocate of healthy lifestyles. Culturally responsive teaching in physical education and sport can help eliminate the potential for discriminatory practices and promote multicultural understanding for teachers, participants, and families (Chepyator-Thompson, 1994). However, the physical education field is lacking in research that considers issues of diversity related to race and ethnicity (Perspectives on Disability, 2001). Based on these findings, there appears to be a need for research involving Latinos and physical activity.

With the rapid growth of Latino student populations in the United States comes a corresponding increase in the number of Latino students who have limited English proficiency as well as disabilities (Fradd & Correa, 1989). Professionals are continually realizing the unique consequences this combination will have on schools and other programs serving Latino students with and without disabilities and their families (Fradd & Correa, 1989). Now is the time for educators and community leaders to help revitalize and reform education and community

programs to better meet the complex health needs of Latino youth with and without disabilities and their families. Physical educators, as well as teachers from other disciplines, play an important role in addressing many of the health and socialization problems facing Latinos and their families, as these professionals possess a unique combination of relevant content knowledge and direct communication with individuals, families, and communities (Smith, Salend, & Ryan, 2001).

Research has identified disparities in physical activity participation between Latino students and the rest of the population (National Center for Disease Control & Prevention, 1997). However, there is a further need to determine specific reasons for these differences. Although there are many possible reasons, teachers' understanding, attitudes, and knowledge levels are clearly at the forefront in terms of having a tremendous impact on Latino students' behavior. As suggested in the self-fulfilling prophecy theory (Horn, Labrador, & Lox, 2001), teachers' attitudes and expectations can have a direct effect on their students learning and psychological growth. More specifically, Horn, et al., (2001) suggest that the expectations that teachers form about their students can serve as prophecies that dictate or determine the level of achievement each student will ultimately reach.

A sensible goal for all educators would be to demonstrate equal expectations and treatment for all students based on performance rather than one's ethnic background, socioeconomic status, gender, or physical appearance. In light

of the profound influence physical educators can have on fostering health and wellness for all individuals, this study will focused on determining current attitude and knowledge levels of public school physical educators with regard to working with the Mexican American population. Although Latino physical activity and wellness issues provide the global theme of this paper, physical educators' attitudes and knowledge about serving Mexican Americans is the central theme. The reason for this is twofold. First, the majority of literature available focuses on the Latino population as a whole making data and statistics specific to Mexican Americans difficult, but important to find. Secondly, the most relevant and useful survey instrument available is geared toward Mexican American culture rather than the entire Latino culture. It is important to reiterate the fact that Mexican Americans comprise the majority (approximately 60%) of the Latino population in the United States.

The data gathered were used to determine what factors or combination of factors best predict or relate to better knowledge and/or attitude levels of physical educators about Latinos. Ultimately, the hope is to maximize teacher effectiveness in working with Latinos, increase physical activity levels of Latino students with and without disabilities, and improve the quality of physical education for all individuals.

In summary, with the significant and continuous increase of Latinos in the U.S., it appears there will be a greater demand for methods of empowering the

Latino population to enjoy physically active and healthy lives. While the school environment is an important arena in which to promote physical activity and to connect with families, it is also vital to consider community physical activity involvement. According to Kozub (2001), physical activity is foundational to functional skills and serves as a go-between to successful community integration for children with and without disabilities and their families. The efficacy of increasing physical activity participation levels of Latinos is largely in the hands of the physical educators who serve them. While physical educators typically provide direct instruction in the school setting, they also often serve as coaches, mentors, advocates, and consultants in a host of extracurricular and community based physical activity settings.

RATIONALE

The purpose of this study is to examine physical education teachers' attitudes and knowledge about working with Mexican American students and their families. In addition, this study is intended to identify previous experiences that influence the attitudes and knowledge levels of physical educators. One of the goals is to use this information to make recommendations on how to improve physical education services for Mexican Americans as well as the rest of the Latino population. Additionally, this information could be helpful toward serving other minority populations. More specifically, the information gathered from this study

is intended to help replace inaccurate information and fill in knowledge gaps that physical educators might have with regard to their attitudes and knowledge about working with Mexican Americans and other Latinos. The rationale for surveying regular physical educators is based partly on their exposure to working in mainstreamed/inclusive contexts as well as with large and diverse groups throughout the day. Additionally, physical education is one of the few content areas that regularly combine the unique interaction of physical, social, and cognitive components of learning (Sherrill, 1998).

Regular participation in physical activity is shown to have far reaching benefits for all individuals (USDHHS, 2000). As more and more Latinos are included in our schools and communities, physical educators and related professionals must learn to work with this population in a way that fosters physical activity while at the same time supporting its unique cultural values. Acculturation can be a difficult process for Latino students and their families; however, school and community based physical activity programs -- including disability sport and leisure programs -- can serve as critical links between families and communities. In order to increase participation in physical activity and foster a sense of community, it is necessary to determine the current knowledge and attitude levels of physical educators with regard to working with Latino students and families.

According to Pedersen (1988), multicultural sensitivity development is a three stage training process that first develops a consciousness of one's assumptions

about a particular group of people and evaluates the accuracy of these assumptions. The second stage measures the accuracy of one's knowledge about the culture, replaces inaccurate information, and fills in the knowledge gaps. The final stage involves specific skills training that individuals need to interact with a culture in a way that fosters positive change. Consistent with the first two stages of this process, an important first step is to gain an understanding of existing knowledge and attitudes among physical educators regarding Mexican American culture. This information can then be used to evaluate the need for and efficacy of cultural sensitivity training for current and prospective physical educators.

If Mexican Americans and other Latinos are going to be able to realize their potential in physical activity and in life, they must share the same liberties and experiences as the rest of the population. To achieve the goal of increasing physical activity for this population, we need to better understand the obstacles to physical activity facing the Latino culture, we need to eliminate these obstacles, and we need to actively reach out and welcome this population into our system. According to S. Ramirez (personal communication, October 21, 2001), a Latino mother of children with disabilities, some major health and education problems facing Latinos include too few professionals who understand the Latino culture and Spanish language, insufficient information in Spanish, and incorrect translations when they are available. Additionally, inadequate language interpretation at meetings is a problem, as is a lack of parental awareness of physical activity

programs. Ms. Ramirez further stated that she strongly believed Latino parents of children with disabilities would be able to connect to their communities better if their children could participate in physical activity programs such as after school recreation and disability sports.

The evidence is clear that physical educators face an increasing demand for culturally sensitive teaching practices as well as mastery of the Spanish language. The information presented herein has plainly indicated a host of significant problems facing Latino youth and their families in the United States. The combination of higher inactivity rates and health problems, a growing absolute number of people of Latino origins, and the younger average age of Latinos indicates an urgent need to address these problems.

The delivery of quality physical education services for Latinos and other minorities may be seriously compromised by inadequate cultural sensitivity among physical educators (Doyle & Chng, 1994). Potential priority areas for educators include helping to reduce cultural and language barriers and eliminating ethnic disparities. Improving attitudes, sensitivity, and knowledge toward Latinos and other minorities may also prove to be vital. Attitude alone is said to be a key to successful inclusion in physical education classes as attitude directly affects the behaviors of both teachers and their students (Rizzo, 1984). If we can address all or some of these goals, the end result may be an increase in Latino participation in physical activity and increased wellness for all individuals and families. By

identifying possible knowledge and attitude deficiencies and/or strengths of physical educators with regard to serving Latinos, physical educators can more effectively welcome Latinos into our system and allow them to become equal participants. Moreover, as Latinos become partners in education, they can help to serve as advocates for other parents sharing similar obstacles and in fact can represent both schools and communities in the process. This is clearly a winning situation for all concerned.

This study is designed to investigate physical educators' current attitude and knowledge levels with regard to working with and understanding the Mexican American population. The factors that contribute to better attitudes and greater knowledge among some respondents will be analyzed. Findings will also be used to evaluate the need for and efficacy of multicultural training. The following hypothesis will be used to guide the analysis and discussion of our findings:

- 1) Physical education teachers will show low attitude and knowledge scores as measured by the Mexican American Attitude and Knowledge Scale.
- 2) Physical educators who have had in-service/job related multicultural training will have better attitudes and greater knowledge than physical educators who have not had this training.

- 3) Physical educators who have had multicultural coursework in their teacher preparation program will have better attitudes and greater knowledge than physical educators who have not had this coursework.
- 4) Physical educators who have had continued education multicultural coursework will have better attitudes and greater knowledge than physical educators who have not had this training.
- 5) Physical educators who speak Spanish at a level that enables them to communicate directions to Spanish-speaking individuals will have better attitudes and greater knowledge than those who cannot.
- 6) Physical educators who have been in the profession fewer than 5 years will have better attitudes and greater knowledge.
- 7) Physical educators who have had Spanish-speaking students in their classes in the past 5 years will have better attitudes and greater knowledge than those who have not.
- 8) Physical educators who have had in-service/job related adapted physical education training will have better attitudes and greater knowledge than physical educators who have not had this training.
- 9) Physical educators who have had adapted physical education coursework in their teacher preparation program will have better attitudes and greater knowledge than physical educators who have not had this coursework.

- 10) Physical educators who have had continued education adapted physical education coursework will have better attitudes and greater knowledge than physical educators who have not had this training.
- 11) Physical educators who have had students with disabilities in their classes in the past 5 years will have better attitudes and greater knowledge than physical educators who have not.

Limitations:

- 1) This study was limited to participants attending the Northwest Conference on Children's Physical Education; therefore, generalizations to physical educators in other parts of the U.S. cannot be made.
- 2) The instrument being used was designed to measure health majors' knowledge and attitudes about Mexican Americans.

Assumptions:

- 1) The Mexican American Attitude and Knowledge Survey is appropriate to measure attitudes and knowledge of physical educators.
- 2) Participants have honestly responded to the survey.

CHAPTER 2: A SURVEY OF PHYSICAL EDUCATION TEACHERS' ATTITUDES AND KNOWLEDGE ABOUT WORKING WITH MEXICAN AMERICANS

ABSTRACT

Attitude and knowledge levels of physical education teachers about working with Mexican American students and families were measured using Doyle and Chng's (1994) Mexican American Attitude and Knowledge Scale (MAAKS).

Multicultural training, adapted physical education training, and other relative experiences that might affect attitude and knowledge levels were analyzed.

Participants in the survey were 91 physical educators in attendance at the Northwest Conference on Children's Physical Education. Physical educators were found to have positive attitudes and moderately high knowledge levels regarding Mexican American culture. A one-way ANOVA revealed a significant main effect for Spanish language skills on attitude scores. Teachers who indicated having the ability to speak Spanish at a level that enabled them to communicate effectively with Spanish speaking students and families were found to have significantly more accepting attitudes toward Mexican American culture than those who lacked this skill. These findings suggest that physical educators have a good foundation with regard to working effectively with Mexican Americans. Functional Spanish language skills appear to be a critical first step in preparing physical educators to work more effectively with Mexican American students and families.

INTRODUCTION

Physical activity is essential for the health and well being of all individuals. Regular physical activity reduces the risk of developing some of the leading causes of illness and death in the United States (U.S. Department of Health & Human Services [USDHHS], 2000). Many Americans of all ages are failing to maintain the daily physical activity levels recommended by the Surgeon General's Report on Physical Activity and Health [SGRPAH], (2001). This amount can be obtained in longer sessions of moderately intense activities, such as walking for 30 minutes a day, or in shorter sessions of more intense activities, such as jogging or playing basketball for 20 minutes a day.

Approximately half of our youth ages 12-21 are not vigorously active on a regular basis. In 1997, only 15 percent of adults performed the recommended amount of physical activity, and 40 percent of adults reported no leisure-time physical activity (USDHHS, 2000). As a consequence of the high rates of physical inactivity, the number of people suffering from a host of health problems such as overweight, obesity, and diabetes is sharply on the rise (SGRPAH, 2001). In 1999, an estimated 61 percent of U.S. adults were overweight, along with 13 percent of children and adolescents. Obesity among adults has doubled since 1980, while overweight among adolescents has tripled (SGRPAH, 2001).

In addition to the alarming trends related to physical inactivity, Americans face a growing set of other challenges. People throughout the world, in search of a

better life, are migrating to the United States. Within the next 20 years, it is projected that approximately 40 percent of public school students will be minorities (Sparks, 1994). As the U.S. becomes more culturally diverse, schools and educators must address the health and wellness needs of this multicultural population of students (Sparks, 1994).

Although there are many minority groups in the U.S. that have important health and educational needs, none appears to face as extreme a sense of urgency as does the Latino population. Latino is used here as an inclusive term that describes individuals of Mexican, Puerto Rican, Cuban, Central or South American, or other Spanish speaking origin. It should be made clear that there is a great deal of heterogeneity both among and within these groups (Rueda & Martinez, 1992). It is also important to note that approximately 60% of Latinos in the U.S. are of Mexican origin (US Census, 2000). Latinos are the largest and fastest growing minority group in the United States, with a projected increase of 48 percent between 1980 and the year 2000 (Fradd & Correa, 1989). If projected growth trends continue, the Latino population will be the largest minority group in the United States, reaching a projected 96.5 million people by the year 2005. This will be roughly 24 percent of the total United States population. Latinos are also a young population, with nearly 35 percent of Latinos being under 18 years of age -- compared to 24 percent of Whites and 30 percent of African Americans.

The Latino population extends the concerns of the rest of the US population in terms of poor health trends and statistics. The National Centers for Disease Control and Prevention's *Report on Adolescent and School Health* (1997) found that Latino students were significantly less likely than White students to have participated in regular vigorous physical activity. In addition, Latino students were significantly less likely to have participated on a sports team directed by their school or by organizations not affiliated with their school. While the pervasiveness of overweight and obesity has increased for both genders and across all cultures and age groups, disparities exist. The Surgeon General's Report on *Overweight and Obesity* (2001) concluded that both Latino men and women have higher rates of obesity than the rest of the U.S. population. Available evidence also shows that compared to White and African American children, Latino children have higher rates of obesity (Zambrana & Logie, 2000). It is important to emphasize the fact that regular physical activity reduces the risk of developing and dying from prevalent health problems such as heart disease, diabetes, and obesity (SGRPAH, 2001).

Promoting physical activity and healthy lifestyles in our progressively inactive society has been a constant challenge for physical educators. With the rise of diversity in our population, including people from myriad cultural backgrounds and individuals with disabilities, comes a host of new concerns for both teachers and researchers (Banville, Desrosiers, & Genet-Volet, 2000). Understanding the

nuances of different cultures in terms of their unique customs, languages, beliefs, and values, plus working with a large continuum of ability levels are at the forefront of these concerns. Multicultural awareness and cross-cultural communication skills are clearly important requirements for being a productive physical educator and advocate of healthy lifestyles. Culturally responsive teaching in physical education and sport can help eliminate the potential for discriminatory practices and promote multicultural understanding for teachers, participants, and families (Chepyator-Thompson, 1994).

Research has identified disparities in physical activity participation between Latino students and the rest of the population (National Center for Disease Control & Prevention, 1997). However, there is a further need to determine specific reasons for these differences. Although there are many possible reasons, teachers' understanding, attitudes, and knowledge levels are clearly at the forefront in terms of having a tremendous impact on Latino students' behavior. As suggested in the self-fulfilling prophecy theory (Horn, Labrador, & Lox, 2001), teachers' attitudes and expectations can have a direct effect on their students learning and psychological growth. More specifically, Horn, et al., (2001) suggest that the expectations that teachers form about their students can serve as prophecies that dictate or determine the level of achievement each student will ultimately reach.

In light of the profound influence physical educators can have on fostering health and wellness for all individuals, this study focuses on determining current

attitude, awareness, and knowledge levels of public school physical educators with regard to working with the Mexican American portion of the Latino population. Although Latino physical activity and wellness issues is the global theme of this paper, physical educators' attitudes and knowledge toward serving Mexican Americans is the central theme. The reason for this is twofold. First, the majority of Literature available focuses on the Latino population as a whole making data and statistics specific to Mexican Americans difficult to find. Secondly, the most relevant and useful survey instrument available is geared toward Mexican American culture rather than the entire Latino culture. Therefore, the general information offered relates to the Latino population, and the survey results will be specific to Mexican American culture. The data gathered will be used to determine what factors or combination of factors best predict or relate to better knowledge and/or attitude levels. Ultimately, the hope is to maximize teacher effectiveness in working with Latinos, increase physical activity levels of Latino students with and without disabilities, and improve the quality of physical education for all individuals.

METHODS

Participants

The participants of this study consisted of 91 kindergarten through 8th grade physical education teachers in attendance at the Northwest Conference on Children's Physical Education (NCCPE). The conference was held in Portland, Oregon on March 15 and 16, 2002. Surveys were distributed to 270 individuals in attendance at the conference and 101 surveys were returned. Among the 101 individuals who returned their surveys, 10 indicated they were not teachers and were therefore excluded from the data analysis. Participants were primarily from Oregon and Washington. Table 1 summarizes the background variables of the participants (see page 26). Prior to data collection, the Oregon State University Institutional Review Board for the Protection of Human Subjects approved this study (Appendix B).

Instrument

The Mexican American Attitude and Knowledge Scale (MAAKS), which was developed by Doyle and Chng (1994), was used in this study to measure current attitude and knowledge levels of K-8 physical educators in attendance at the NCCPE. The knowledge sub-scale of the MAAKS includes 15 multiple choice questions and the attitude sub-scale includes 18 Likert items. Totaling the number

of correct answers scores the knowledge portion; high and low scores indicate high and low knowledge of Mexican American culture. Scores of 0-5 indicate a low knowledge level, 6-10 indicate a moderate level, and 11-15 show a high level of knowledge (Doyle & Chng, 1994). The attitude portion is scored using a 5 point (strongly agree, agree, uncertain, disagree, strongly disagree) Likert rating format to measure participant attitude and sensitivity toward working with Mexican Americans. Items are carefully structured to include both accepting and non-accepting statements. For the 5 point attitude scale, points from 1 (strongly disagree) to 5 (strongly agree) were assigned for accepting statements. A reverse of point assignments (1 for strongly agree, 5 for strongly disagree) was implemented for scoring non-accepting items. The higher the score, the more accepting the attitudes held by the respondent toward Mexican American culture. The possible score range is from 0-90. The closer the participant's score is to 90, the more accepting his/her attitude is toward Mexican American culture. Scores ranging from 43-66 are suggested to be in the moderate range. Scores below 43 are in the low range, and scores above 66 are in the high range (Doyle & Chng, 1994).

Doyle and Chng (1994) estimated evidence for validity and reliability of the MAAKS. Internal consistency of knowledge and attitude items was field-tested using responses from 15 male and 47 female participants. A Cronbach alpha coefficient was computed to estimate internal consistency of the attitude items ($r=.86$). A modified form of the Cronbach alpha reliability test known as the

Kuder-Richardson formula number 20 (KR20) was used to estimate internal consistency of the knowledge items ($r=.80$). Test-retest reliability of the MAAKS was also assessed using a different group of participants and on two different occasions. The results for the attitude scale ($r=.80$) and knowledge scale ($r=.80$) indicate adequate evidence of reliability for the instrument. Evidence for validity was estimated by using standardized *t*-tests to compare knowledge and attitude group mean scores of non-Mexican Americans and Mexican American Professionals. Both knowledge ($t=3.46$, $p<.01$) and attitude ($t=8.89$, $p<.001$) scores were significantly higher for Mexican American respondents than for non-Mexican American respondents. These findings indicate that the MAAKS shows good evidence for validity in terms of measuring knowledge and attitudes toward traditional Mexican American culture.

Since the MAAKS was originally designed to assess the knowledge and attitude levels of university health students, a pilot study was conducted prior to distribution of the instrument at the NCCPE. The pilot study consisted of having three physical education teachers from Corvallis, Oregon, complete the survey and provide feedback on content clarity and administrative considerations. After each pilot participant completed the survey, potential problems and solutions were addressed and modified as recommended. Modifications included terminology changes on the demographic cover sheet and highlighting false statements on the MAAKS to make them easily recognizable.

Procedures

The cover letter/informed consent (Appendix C) and survey instrument (Appendix D) were included in the participant packets of the 270 individuals who attended the NCCPE. The conference was organized by the Council for Children's Expanded Physical Education, which granted permission to conduct the survey at their conference. At the beginning of each conference session, investigators personally encouraged participants to complete the survey and informed them of its voluntary and confidential nature. It took participants approximately 20 minutes to complete the survey; they were under no time constraints while filling out the document. Surveys were collected in person by the investigators at the conference.

Data Analysis

Background information was analyzed by counting the frequency of responses for each of the possible choices listed on the survey cover sheet. In addition, percentages of individuals responding to each choice were calculated based on the frequency amounts and the total number of participants responding to each question. Composite attitude and knowledge scores were calculated by adding all the items from the attitude and knowledge sub-scales respectively. Descriptive statistics for composite attitude and knowledge scores were also calculated. The composite scores helped to identify attitude and knowledge levels of participants. In addition, composite scores helped to distinguish the effects of multicultural

training, adapted physical education training, and related experiences on physical educators' attitude and knowledge about serving Latino students and families. Descriptive statistics for attitude and knowledge scores, for each independent variable, were calculated for those respondents who did and did not have each type of experience or training. Data greater than 1.5 quartiles from the median were checked for accurate data entry; none of the data were removed from the analysis. Data that were missing from the surveys were estimated and imputed using the SPSS Expectation Maximization (EM) function. Data missing from the 18-item attitude sub-scale ranged from 1.1 – 4.4 % per question. Data missing from the 15-item knowledge sub-scale ranged from 1.1 – 14.3 % per question. The EM function has been recommended as one of the best general solutions to missing data problems (Acock, 1997).

A one-sample *t*-test was employed to compare the participants' mean attitude and knowledge scores with the "low" cutoff scores designated by the MAAKS scoring criteria. Two separate MANOVA were employed to examine the effects of the two different categories of training (multicultural and adapted physical education). The first analysis on multicultural training, a 2 x 2 x 2 (in-service training x pre-service training x graduate training) MANOVA, was used to examine the effects of three types of multicultural training on knowledge and attitude scores. The second analysis on adapted physical education training, a 2 x 2 x 2 (in-service training x pre-service training x graduate training) MANOVA, was

used to examine the effects of three types of adapted physical education training on knowledge and attitude scores.

Because the final group of miscellaneous teaching experiences included four relatively independent variables, eight different one-way ANOVA were employed to explore the effects of each variable independently; they were further separated based on attitude and knowledge scores. These independent experiences include speaking and understanding Spanish, having taught Spanish speaking students in the past 5 years, having taught students with disabilities in the past 5 years, and having taught more or less than 5 years.

RESULTS

Background Variables

Analyses were conducted to identify the frequencies and percentages of selected demographic and background variables of the participants (see Table 1). These include gender, years teaching, state teaching in, type of teaching license, current teaching position, and last degree earned. The majority of the participants (69%) were women and had been teaching more than five years (60%). In addition, the majority of respondents (74%) identified themselves as general physical educators who held a general physical education teaching license (72%), and a master degree level of education (65%).

Table 1: Background Variables of Physical Education Teachers.

Variable	Frequency	%
Gender		
Female	60	69
Male	27	31
Years teaching		
Less than 5	32	40
More than 5	50	60
State teaching in		
Oregon	58	68
Washington	22	26
California	3	4
Idaho	2	2
Type of teaching license		
Physical education	59	72
Adapted physical education	13	16
Other	10	12
Current teaching position		
Physical education	58	74
Adapted physical education	5	7
Physical education & adapted physical education	3	4
Other (i.e., classroom teachers responsible for physical education instruction, past physical educators, and substitute physical educators).	11	14
Last degree earned (education)		
BA	15	17
BS	18	20
MAT	18	20
MA	13	15
MS	18	20
Other	7	8

Composite Scores

Table 2 summarizes the descriptive statistics for the composite attitude and knowledge scales. The average score on the attitude sub-scale was 74.40. Scores ranged from 54 to 90, which indicated that none of the participants in this survey demonstrated low attitude levels toward Mexican Americans. The average knowledge sub-scale score was 7.27. Knowledge scores ranged from 3 to 12, which fell into the low to high categories respectively.

Table 2: Descriptive Statistics for Composite Attitude and Knowledge Scores

Dependent Variable	<u>n</u>	Range	M	SD
Attitude	91	54 - 90	74.40	8.61
Knowledge	91	3-12	7.27	1.89

Note. The general interpretation guidelines of the Mexican American Attitude and Knowledge Scale developed by Doyle and Chng (1994) are as follows: **Attitude:** < 43 = low, 43-66 = moderate, and 67-90 = high. **Knowledge:** 0-5 = low, 6-10 = moderate, and 11-15 = high.

A one-sample *t*-test was performed comparing the sample's mean attitude and knowledge scores against the hypothesized values. The low cutoff score for the attitude sub-scale was 42 and the low cutoff score for the knowledge sub-scale was 5, as designated by the MAAKS (Doyle and Chng, 1994). An alpha level of .05 was used for the statistical analysis. The sample mean for the attitude sub-scale of 74.40 (SD = 8.61) was found to be statistically significantly higher than the

expected lower attitude value, $t(90) = 34.81, p = .000$, suggesting the mean attitude score of the sample was greater than the expected value. The sample mean for the knowledge sub-scale of 7.27 (SD=1.89) was found to be statistically significantly higher than the expected lower knowledge value, $t(90) = 11.46, p = .000$, suggesting the mean knowledge score of the sample was greater than the expected value. These finding suggest that physical educators have positive attitudes and moderate knowledge with regard to traditional Mexican American culture.

Effects of Multicultural Experiences

Table 3 summarizes the frequencies, percentages, and descriptive statistics for participants who did and did not have each of the three types of multicultural experiences.

Table 3: Descriptive statistics for multicultural training variables.

Independent Variable	Fixed Variable:	<u>n</u>	%	M	SD
In-service Multicultural Training					
Attitude	Yes	60	67	75.09	8.57
	No	30	33	73.01	8.80
Knowledge	Yes	60	67	7.59	1.93
	No	30	33	6.63	1.69
Pre-service Multicultural Training					
Attitude	Yes	34	38	76.90	8.73
	No	55	62	72.70	8.83
Knowledge	Yes	34	38	7.19	1.76
	No	55	62	7.24	1.91

Table 3 (Continued)

	Graduate Multicultural Course					
Attitude	Yes	23	25	77.06	8.08	
	No	68	75	73.50	8.65	
Knowledge	Yes	23	25	7.10	2.14	
	No	68	75	7.33	1.81	

A 2 x 2 x 2 MANOVA (in-service multicultural training x pre-service multicultural training x graduate level multicultural training) revealed no statistically significant main effect for the three types of multicultural training on attitude and knowledge levels. In addition, no statistically significant interactions were found between the three types of multicultural training (see Table 4).

Table 4: Multivariate Analysis of Variance for Multicultural Training.

Effect (source)	Wilk's Lambda Value (λ)	<i>F</i>	<i>p</i>
In-service Multicultural Training	.97	1.07	.35
Pre-service Multicultural Training	.99	.46	.63
Graduate Multicultural Training	.97	1.35	.26
In-service x Pre-service Multicultural Training	.96	1.83	.17
In-service x Graduate Multicultural Training	.98	.84	.43
Pre-service x Graduate Multicultural Training	.98	.59	.57
In-service x Pre-service x Graduate Multicultural Training	.98	.65	.52

Effects of Adapted Physical Education Experiences

Table 5 summarizes the frequencies, percentages, and descriptive statistics for participants who did and did not have each of the three types of adapted physical education experiences.

Table 5: Descriptive Statistics for Adapted Physical Education (APE) Training/Education Variables.

Independent Variable	Fixed Variable:	<u>n</u>	%	M	SD
In-service APE Training					
Attitude	Yes	49	54	73.74	9.07
	No	41	46	75.03	8.12
Knowledge	Yes	49	54	7.48	1.77
	No	41	46	7.06	2.03
Pre-service APE Course					
Attitude	Yes	59	65	74.30	8.36
	No	32	35	74.59	9.18
Knowledge	Yes	59	65	7.22	1.86
	No	32	35	7.37	1.98
Graduate APE Course					
Attitude	Yes	34	37	74.77	9.17
	No	57	63	74.18	8.32
Knowledge	Yes	34	37	7.48	1.78
	No	57	63	7.14	1.96

A 2 x 2 x 2 MANOVA (in-service adapted physical education training x pre-service adapted physical education training x graduate level adapted physical education training) revealed a statistically significant interaction between in-service adapted physical education training and graduate adapted physical education

training. Wilk's Lambda (λ) = .90, $F(2, 81) = 4.27$, $p = .02$. As a follow up procedure, a univariate analysis indicated a significant interaction between in-service adapted physical education training and graduate adapted physical education training on knowledge scores, $F(1, 82) = 6.10$, $p = .02$. No statistically significant main effect or interaction was found for the other types of adapted physical education training on attitude and knowledge levels (see Table 6).

Table 6: Multivariate Analysis of Variance for Adapted Physical Education Training.

Effect	Wilk's Lambda Value (λ)	F	p
In-service Adapted Physical Education Training	.94	2.46	.09
Pre-service Adapted Physical Education Training	.99	.22	.80
Graduate Adapted Physical Education Training	.99	.32	.73
In-service x Pre-service Adapted Physical Education Training	.10	.18	.84
In-service x Graduate Adapted Physical Education Training	.90	4.27*	.02
Pre-service x Graduate Adapted Physical Education Training	.99	.54	.58
In-service x Pre-service x Graduate Adapted Physical Education Training	.99	.49	.61

Note. * $P < .05$

Effects of Independent Experiences

Table 7 summarizes the frequencies, percentages, and descriptive statistics for participants who did and did not have each of the four types of independent experiences.

Table 7: Descriptive Statistics for Independent Experiences.

Independent Variable	Fixed Variable:	<u>n</u>	%	M	SD
Speak/Understand Spanish					
Attitude	Yes	7	8	83.87	5.28
	No	84	92	73.61	8.37
Knowledge	Yes	7	8	7.99	1.39
	No	84	92	7.21	1.92
Taught Spanish Speaking Students in Past 5 Years					
Attitude	Yes	69	76	75.27	8.58
	No	22	24	71.66	8.28
Knowledge	Yes	69	76	7.36	1.95
	No	22	24	7.00	1.72
Taught Students with Disabilities					
Attitude	Yes	86	95	74.25	8.48
	No	5	5	76.92	11.43
Knowledge	Yes	86	95	7.27	1.92
	No	5	5	7.20	1.48
Years of Teaching Experience					
Attitude	Less than 5 years	31	38	75.55	8.47
	More than 5 years	51	62	72.61	8.72
Knowledge	Less than 5 years	31	38	6.88	2.00
	More than 5 years	51	62	7.52	2.78

Eight one-way ANOVA were conducted to determine the effects of each of the four independent experiences/variables. These variables were also separated based on attitude and knowledge sub-scales. There was a significant main effect for Spanish language skills on attitude scores, $F(1, 89) = 10.11, p = .002$. Individuals who indicated having the ability to speak Spanish at a level that enabled them to communicate directions to Spanish speaking individuals were found to have more positive attitudes. No statistically significant main effects were found among the other variables (see table 8).

Table 8: One-way Analysis of Variance for Independent Experiences.

Dependent Variable	Independent Experiences	ANOVA	df	<i>F</i>	<i>p</i>
Attitude	Speak/Understand Spanish	Between Groups	1	10.10*	.002
		Within Groups	89		
	Taught Spanish Speaking Students in Past 5 Years	Between Groups	1	3.00	.09
		Within Groups	89		
	Taught Students with Disabilities	Between Groups	1	.45	.50
		Within Groups	89		
	Teaching Less than 5 Years	Between Groups	1	2.23	.14
		Within Groups	80		
Knowledge	Speak/Understand Spanish	Between Groups	1	1.10	.30
		Within Groups	89		
	Taught Spanish Speaking Students in Past 5 Years	Between Groups	1	.59	.44
		Within Groups	89		

Table 8 (Continued)

Taught Students with Disabilities	Between Groups	1	.007	.93
	Within Groups	89		
Teaching Less than 5 Years	Between Groups	1	2.4	.12
	Within Groups	80		

Note. * $p < .01$

DISCUSSION

Primary Hypothesis and Background Variables

The primary purpose of this study was to determine physical education teachers' attitudes and knowledge related to working with Mexican American students and families. It was hypothesized that physical educators would show low attitude and knowledge levels as measured by the MAAKS. The results of this study indicated that physical educators had high accepting attitudes and moderate knowledge levels toward traditional Mexican American culture. These findings were not only contrary to the hypothesis, they were also inconsistent with previous multicultural research that found deficiencies in the knowledge, sensitivity, and teaching skills of general educators with regard to working with minority populations (Miller, Miller, & Schroth, 1997). In a similar study, Larke (1990) revealed that the majority of pre-service teachers at a southwestern university were

not comfortable working with culturally diverse students and their parents. Only one fifth of the respondents, all of whom had received a multicultural course, preferred to work with culturally diverse students. In addition, the results of the MAAKS pilot study, which included 165 undergraduate students enrolled in a Texas university health promotion program, revealed mean knowledge scores that were on the lower end of the moderate knowledge level, and mean attitude scores that were in the moderate range (Doyle & Chng, 1994).

One explanation for the contrast in findings of this study, compared to others, is the difference in participants involved. For instance, Larke's study included pre-service teachers in general, whereas this study involved physical education teachers who were in attendance at a professional conference. One assumption is that physical educators who had the initiative to participate in a professional conference might also be high achievers or self-motivated in terms of learning about and interacting with Mexican Americans and other diverse groups. In addition, the majority (65%) of the participants in this study indicated having a master's degree level of education and 60% of the participants indicated having been teaching more than five years. With this level of education and experience, it might be expected that these participants would have more knowledge and sensitivity related to working with Mexican Americans and perhaps other diverse groups. This assumption sheds light on the limitations of the sample size and type used in this study.

Another possible explanation for the findings of this study is the idea that individuals that teach and coach physical activity and sport have better attitudes and more knowledge toward diverse groups than other groups. DeVoe, McMillen, Zimmerman, & McGrew (1996) found that pre-service coaching majors had favorable attitudes toward working within a multicultural context. The participants in DeVoe et al.'s study were surveyed before and after a coaching course that included the infusion of a host of multicultural topics. Although no significant differences in attitudes were seen after the infusion, it is important to note that attitude scores were favorable both before and after the infusion. It is suggested that because pre-service coaches began their infusion/training with favorable attitudes they were therefore less likely to show a change in the positive direction.

Based on this information and the results of the current study, further analysis of the reason why coaching majors and physical educators appear to have more favorable or non-racial attitudes than educators in other content areas might be warranted. The multicultural context of sport in America could be one factor to consider. That is, as many coaching and physical education majors are likely to have been interested in and involved with sport during their lives, they are likely to have been exposed to more diversity as a sport participant and/or spectator than other groups.

It is also possible that the participants in this study were predominantly raised with non-racial attitudes and moderate exposure to information about the

Mexican American culture through a variety of experiences. For instance, having Latino friends and/or classmates, reading multicultural books, or traveling to Latin American countries, could have a profound affect on one's attitude and knowledge toward Mexican Americans. If participants had positive attitudes and moderate knowledge prior to the various experiences that were hypothesized to affect these variables, little positive change would be seen.

There are also some concerns with the survey instrument used. The validity and reliability evidence of the MAAKS was estimated from college students in Texas (Doyle & Chng, 1994). As a result, the generalizability of the MAAKS beyond Texas and to physical educators may be limited. In addition, the MAAKS is only designed to measure attitudes and knowledge toward Mexican Americans. Although according to the U.S. Census Bureau the majority of Latinos in the U.S. (60%) are Mexican American, how is one to know for certain if respondents' answers to the questions are based on perceptions or experiences with Mexican Americans, or the Latino culture in general. It might be sensible to construct a similar survey geared toward the Latino culture as a whole and toward physical educators. It is important to emphasize the fact that although there are many similarities between and within the Mexican American and Latino cultures, there is also a great deal of heterogeneity (Rueda & Martinez, 1992). This study in no way intends to infer or encourage stereotypical assumptions. Instead, the findings of

this study are intended to expand the knowledge base and promote physical activity for all human beings.

Multicultural Training

A secondary purpose of this study was to identify certain teaching experiences and training that influence one's attitude and knowledge toward working with the Mexican American population. It was hypothesized that teachers who have had in-service, pre-service, and/or graduate level multicultural training would have better attitudes and greater knowledge than those who did not have this training. No statistically significant effects or interactions were found between physical educators who had or did not have one or a combination of the three types of multicultural training.

A potential explanation for the lack of differences in attitude and knowledge levels is the quality of the multicultural courses being offered. Miller, Miller, and Schroth (1997) found that many teacher preparation programs provide either an integrated multicultural component within an existing course or require an independent multicultural course; however, few teacher education programs provide in-depth experiences specific to each diverse culture or diverse group. Moreover, participants in Miller, Miller, and Schroth's (1997) study specifically indicated that their pre-service multicultural training failed to adequately address issues of race as it related to teaching and learning. Based on this information, it is

not surprising that participants that had multicultural training showed similar attitude and knowledge levels related to working with Mexican American students and families as those who did not have multicultural training. That is, if the multicultural training that teachers received was too general or did not include information specific to the unique characteristics of the Mexican American culture, it is unlikely that teachers who received multicultural training would have more specific knowledge than those who did not have multicultural training.

It is possible that the participants of this study had moderate knowledge and positive attitudes relative to working with Mexican Americans before they took a multicultural course. If this were the case, it would be even more unlikely that a generic multicultural course would have a significant impact on one's knowledge and attitude level. Furthermore, Larke (1990) and DeVoe et al. (1996) found that one multicultural course was insufficient to change the attitudes of pre-service teachers.

An interesting trend was revealed with regard to individuals who did report having had in-service, pre-service and/or graduate multicultural training. Although not statistically significant (both groups showed high attitude levels), those who did have in-service, pre-service, and/or graduate level multicultural training showed consistently higher attitude levels than those who did not have these training experiences. No such consistent trends were seen with knowledge scores. For instance, those who did not have pre-service or graduate multicultural training

showed higher knowledge levels than those who had this type of multicultural training. One explanation for these findings is the idea that the various multicultural training received by teachers is too generic. That is, one might expect to see significantly higher knowledge scores from those who did have multicultural training if the training included more information specific to Mexican American culture. It appears that a general multicultural course or training experience might have a positive impact on one's attitude toward Mexican Americans; however, it does not appear that a generic multicultural course provides enough specific information about the Mexican American culture to positively affect one's knowledge levels. It is important to reiterate the fact that the attitude levels of both those that did and did not have the various multicultural training were high. It can be inferred that the multicultural training that participants did receive provided no significant added advantage compared to participants who did not have multicultural training.

The first stage of Pedersen's (1988) three-stage process of developing multicultural sensitivity is generating an awareness of one's assumptions or attitudes about a particular group of people and evaluating the accuracy of these assumptions. The second stage measures accuracy of knowledge about the culture, replaces inaccurate information, and fills in knowledge gaps. Consistent with Pedersen's model, this study has provided important information about the existing attitude and knowledge levels of physical education teachers and provides accurate

information relative to Mexican American and other Latino cultures. The third stage of Pedersen's process of multicultural sensitivity development speaks to improving an individual's ability to interact with cultural members in a way that facilitates change. This study contributes to this stage of multicultural sensitivity development by providing specific information on which teacher experiences most positively influence the knowledge and attitudes of physical educators toward serving Mexican Americans. Although not statistically significant, the ability to speak Spanish at a level that enables teachers to communicate directions to Spanish-speaking individuals resulted in the highest knowledge levels. Physical educators who indicated having this level of Spanish language skill demonstrated the highest knowledge and attitude levels compared to all other training and experience variables.

Adapted Physical Education Training

One or a combination of the three types of adapted physical education training was hypothesized to have an effect on one's attitude and knowledge levels related to working with Mexican Americans. It is possible that exposure to disability issues would have a general affect on one's knowledge and attitude toward diverse groups. Having a combination of in-service and graduate level adapted physical education training was found to have a significant interaction on knowledge scores. These findings speak to the significance of greater exposure to a

variety of experiences and training throughout one's career. Teachers who have taken the initiative to continue their professional growth through adapted physical education in-service training and graduate level courses are perhaps more likely to apply themselves toward learning about other important areas such as multicultural issues.

Independent Experiences

The four independent experiences that were expected to have an effect on physical educators' attitude and knowledge levels include Spanish language skills, having taught Spanish speaking students in the past five years, having taught students with disabilities in the past five years, and teaching less than five years. Of these independent experiences, Spanish language skills were found to have a significant effect on physical educators' attitude levels toward Mexican American culture. Knowledge levels were not significantly effected by any of these variables. One explanation for the better attitudes of physical educators who indicated having a functional use of the Spanish language is that they were likely to have had more personal interactions with Spanish speaking people. Alvarez (1998) suggests that being able to speak Spanish is one of the cornerstones to developing cultural sensitivity toward working with Latino children and families. In addition, teachers that indicated having Spanish language skills are likely to have elected to take training in the Spanish language. As a result, these individuals are likely to have an

interest in the Latino culture and have likely been exposed to the Latino and/or Mexican American culture in a variety of contexts. This could have a significant influence on one's attitude or understanding toward a particular group.

Pearce (1999) identifies a lack of communication skills as being one of the most restrictive barriers in all life spheres. Pearce also suggests that linguistic obstacles are a primary cause of the limited participation in physical activity among non-dominant racial and ethnic groups. That said, requiring Spanish language acquisition in teacher training would likely result not only in better attitudes in general, but could also positively effect the primary goal of increasing physical activity of Latinos and other minority groups. Teachers who can communicate effectively with all of their students and their students' families are more likely to appreciate the value of different cultures, many will relate better to other people's experiences and needs, and many will be better prepared to take action on behalf of others (Wessinger, 1994).

CONCLUSIONS

Although data did not support the hypothesis that physical educators would exhibit low knowledge and attitude levels toward working with Mexican American students and families, the results of this study offer a significant contribution to the paucity of research specific to physical educators and Mexican American culture. This study also offered the unique practice and analysis of employing an

assessment instrument to illuminate the desired information about physical education teachers. Additionally, the fact that this study provided evidence that physical educators have positive attitudes and moderate knowledge levels lends support to the significance of physical education teachers' roles in welcoming Mexican Americans and other diverse groups into their programs. By supporting students' and families' cultural values and empowering them through knowledge and experiences, one would hope to see positive change in physical activity levels. With these attitudes and skills, the hope is that all individuals will increase their enjoyment for physical activity and will remain active throughout their lives.

The results of this study emphasize the special opportunity that physical educators have with regard to working with Mexican American students and families in fostering physically active lifestyles. It is encouraging to see that physical educators appear to have a relatively solid foundation of knowledge and sensitivity toward serving Mexican Americans. As positive role models and knowledgeable advocates of culturally diverse individuals, physical educators can help lead the way in training and motivating others to promote equality and participation in all educational opportunities.

Future research could include an investigation of attitude and knowledge levels immediately following an infusion of specific training. This type of experimental design might shed more light on the efficacy of and need for multicultural training. Using a larger sample and one that is randomly selected will

add power and quality to such a study. Developing an assessment instrument specific to physical education and the Latino culture in general would be a useful addition to conducting this type of research in the future.

Clearly, information is lacking on specifically why Mexican American and Latino physical activity levels are low and precisely how physical educators can reverse this trend. The conclusions of this study offer a foundation to build upon in terms of finding the answers to these important questions. By determining the attitude and knowledge levels of physical educators, we can get a general idea of where physical educators currently stand as a profession in terms of knowledge and a willingness to address these questions. As the results of this study suggest that physical educators' knowledge and attitudes levels are moderate to high respectively, one would hope that physical educators have the foundational skills to help find the answers to these important questions.

REFERENCES

- Acock, A. (1997). Working with missing data. Family Science Review, 10, 76-102.
- Alvarez, L. (1998). A short course in sensitivity training: working with Hispanic families of children with disabilities. Teaching Exceptional Children, 30, 73-77.
- Banville, D., Desrosiers, P., & Genet-Volet, Y. (2000). Translating questionnaires and inventories using a cross-cultural translation technique. Journal of Teaching in Physical Education, 19, 374-387.
- Chepyator-Thomas, J. (1994). Why we need a multicultural focus in our schools. JOPERD, 65, 31-32.
- DeVoe, D., McMillen, B., Zimmerman, A., & McGrew, J. (1996). Infusing a multicultural component into coaching education. Journal of Instructional Psychology, 23 (1), 14-20.
- Doyle, E., & Chng, C. (1994). Design and validation of a Mexican American attitude and knowledge scale. Health Values, 18 (2), 40-48.
- Fradd, S., & Correa, V. (1989). Hispanic students at risk: do we abdicate or advocate? Exceptional Children, 56 (2), 105-110.
- Horn, T., Lox, C., & Labrador, F. (2001). The self-fulfilling prophecy theory: When coaches' expectations become reality. In J.M. Williams (Ed.), Applied sport psychology: Personal growth to peak performance (pp. 63-81). Mountain View, CA: Mayfield.
- Larke, P. (1990). Cultural diversity awareness inventory: Assessing the sensitivity of pre-service teachers. Action in Teacher Education, 12, 23-30.
- Miller, M., Miller, K., & Schroth, G. (1997). Teacher perceptions of multicultural training in pre-service programs. Journal of Instructional Psychology, 24 (4), 222-232.
- National Center for Disease Control and Prevention (1997). Adolescent and school health survey. Retrieved December 22, 2001, from <http://www.cdc.gov.html>

- Pearce, K. (1999). Parks and recreation and the Surgeon General's report: Race, ethnicity, and physical activity. JOPERD, 70 (1), 25-28.
- Pedersen, P. (1988). A handbook for developing multicultural understanding. Alexandria, VA: The American Association for Counseling and Development.
- Rueda, R., & Martinez, I. (1992). Fiesta Educativa: One community's approach to parent training in developmental disabilities for Latino families. Journal of the Association of Persons with Severe Handicaps, 17 (2), 95-103.
- Sparks, G. (1994). Culturally responsive pedagogy: A framework for addressing multicultural issues. JOPERD, 65, 33-61.
- Surgeon General's Report on Physical Activity and Health (2001). Retrieved December 22, 2001, from <http://www.cdc.surgeongneral.gov.html>
- Surgeon General's Report on Overweight and Obesity (2001). Retrieved December 22, 2001, from <http://www.cdc.surgeongneral.gov.html>
- U.S. Department of Health and Human Services. Healthy People 2010: Understanding and Improving Health. 2nd ed. Washington, DC: U.S. Government Printing Office, November 2000.
- U.S. Bureau of the Census. (2000). Washington, DC: Retrieved December 22, 2001, from <http://www.census.gov>
- Wessinger, N. (1994). Celebrating our differences – fostering ethnicity in homogenous settings. JOPERD, 65, 62-68.
- Zamabara, R., & Logie, L. (2000). Latino child health: Need for inclusion in the US national discourse. Journal of Public Health, 90 (12), 1827-1831.

CHAPTER 3: SUMMARY

RESEARCH CONCLUSIONS

Although data did not support the hypothesis that physical educators would exhibit low knowledge and attitude levels toward working with Mexican American students and families, the results of this study offer a significant contribution to the paucity of research specific to physical educators and Mexican American culture. This study also offered the unique practice and analysis of employing an assessment instrument to illuminate the desired information about physical education teachers. Additionally, the fact that this study offers evidence that physical educators have positive attitudes and moderate knowledge levels, lends support to the significance of physical education teachers' roles in welcoming Mexican American's and other diverse groups into their programs. By supporting students' and families' cultural values, and empowering them through knowledge and experiences, one would hope to see positive change in physical activity levels. With these attitudes and skills, the hope is that all individuals will increase their enjoyment for physical activity and will remain active throughout their lives.

The results of this study emphasize the special opportunity that Physical educators have with regard to working with Mexican American students and families in fostering physically active lifestyles. It is encouraging to see that physical educators appear to have a relatively solid foundation of knowledge and

sensitivity toward serving Mexican Americans. As positive role models and knowledgeable advocates of culturally diverse individuals, physical educators can help lead the way in training and motivating others to promote equality and participation in all educational opportunities.

FUTURE RESEARCH DIRECTIONS

Future research could include an investigation of attitude and knowledge levels immediately following an infusion or specific training. This type of experimental design might shed more light on the efficacy of and need for multicultural training. Using a larger sample and one that is randomly selected will add power and quality to such a study. Developing an assessment instrument specific to physical education and the Latino culture in general would be a useful addition to conducting this type of research in the future. A study might also be conducted to try to validate the MAAKS for use with physical educators.

Clearly, information is lacking on specifically why Mexican American and Latino physical activity levels are low and precisely how physical educators can reverse this trend. The conclusions of this study offer a foundation to build upon in terms of finding the answers to these important questions. By determining the attitude and knowledge levels of physical educators, we can get a general idea of where physical educators currently stand as a profession in terms of knowledge and a willingness to address these questions. As the results of this study suggest that

physical educators' knowledge and attitudes levels are moderate to high respectively, one would hope that physical educators have the foundational skills to help find the answers to these important questions.

BIBLIOGRAPHY

- Acock, A. (1997). Working with missing data. Family Science Review, 10, 76-102.
- Alvarez, L. (1998). A short course in sensitivity training: Working with Hispanic families of children with disabilities. Teaching Exceptional Children, 30, 73-77.
- Bailey, D., Skinner, D., Rodriquez, P., Gut, D., & Correa, V. (1999). Awareness, use, and satisfaction with services for Latino parents of young children with disabilities. Exceptional Children, 65 (3), 367-381.
- Banville, D., Desrosiers, P., & Genet-Volet, Y. (2000). Translating questionnaires and inventories using a cross-cultural translation technique. Journal of Teaching in Physical Education, 19, 374-387.
- Butt, K. & Pahnos, M. (1995). Why we need a multicultural focus in our schools. JOPERD, 66, 48-53.
- Chepyator-Thomas, J. (1994). Multicultural education – culturally responsive teaching. JOPERD, 65, 31-32.
- Cooper, C., Denner, J., & Lopez, E. (1999). Cultural brokers: Helping Latino children on pathways toward success. The Future of Children, 9 (2), 51-57.
- DeVoe, D., McMillen, B., Zimmerman, A., & McGrew, J. (1996). Infusing a multicultural component into coaching education. Journal of Instructional Psychology, 23 (1), 14-20.
- Doyle, E., & Chng, C. (1994). Design and validation of a Mexican American attitude and knowledge scale. Health Values, 18 (2), 40-48.
- Espinosa, L. (2001). Hispanic parent involvement in early childhood programs. Urbana IL. (Eric document reproductive service No. ED382412).
- Fradd, S., & Correa, V. (1989). Hispanic students at risk: Do we abdicate or advocate? Exceptional Children, 56 (2), 105-110.

- Gorden-Larsen, P., McMurray, R., & Popkin, B. (1999). Adolescent physical activity and inactivity vary by ethnicity: The national longitudinal study of adolescent health. Journal of Pediatrics, 135 (3), 301-306.
- Haycock, K., & Duany, L. (1991). Developing the potential of Latino students. PRINCIPAL, 70 (3), 25-27.
- Horn, T., Lox, C., & Labrador, F. (2001). The self-fulfilling prophecy theory: When coaches' expectations become reality. In J.M. Williams (Ed.), Applied sport psychology: Personal growth to peak performance (pp. 63-81). Mountain View, CA: Mayfield.
- Hughes, M., Schumm, J., & Vaughn, S. (1999). Home literacy activities: Perceptions and practices of Hispanic parents of children with learning disabilities. Learning Disability Quarterly, 22, 224-235.
- Kowalski, E., & Rizzo, T. (1996). Factors influencing pre-service student's attitudes toward individuals with disabilities. Adapted Physical Activity Quarterly, 13, 180-196.
- Kozub, F. (2001). Adapted physical activity programming within the family – the family systems theory. Palaestra, 17, 30-38.
- Krampf, H., Folsom-Meek, S., & Groteluschen, W. (1996). Effects of academic major, gender, and hands on experience on attitude of students enrolled in introductory adapted physical education courses toward learners with disabilities. Research Quarterly for Exercise and Sport Abstracts, 67, 80-82.
- Larke, P. (1990). Cultural diversity awareness inventory: Assessing the sensitivity of pre-service teachers. Action in Teacher Education, 12, 23-30.
- Liontos, L. (1992). At-risk families and schools: Becoming partners. Eugene, OR: ERIC Clearinghouse on Educational Management. ED 342 055.
- Miller, M., Miller, K., & Schroth, G. (1997). Teacher perceptions of multicultural training in pre-service programs. Journal of Instructional Psychology, 24 (4), 222-232.
- National Center for Disease Control and Prevention (1997). Adolescent and school health survey. Retrieved December 22, 2001, from <http://www.cdc.gov.html>

- Nicolau, S., & Ramos, C. (1990). Together is better: Building strong relationships between schools and Hispanic parents. New York: Hispanic Development Project. ED 325 543.
- Pearce, K. (1999). Parks and recreation and the surgeon general's report: Race, ethnicity, and physical activity. JOPERD, 70 (1), 25-28.
- Pedersen, P. (1988). A handbook for developing multicultural understanding. Alexandria, VA: The American Association for Counseling and Development.
- Perspectives on Disability in Physical Education: A Synthesis of Literature.
Retrieved August 10, 2001, from
<http://www.arches.uga.edu/~cilab/cidisable.html>
- Rizzo, T.L. (1984). Attitudes of physical educators toward teaching handicapped pupils. Adapted Physical Activity Quarterly, 1, 267-280.
- Rizzo, T., & Vispoel, W. (1991). Physical educator's attributes and attitudes toward teaching students with handicaps. Adapted Physical Activity Quarterly, 8, 4-11.
- Rueda, R., & Martinez, I. (1992). Fiesta Educativa: One community's approach to parent training in developmental disabilities for Latino families. Journal of the Association of Persons with Severe Handicaps, 17 (2), 95-103.
- Santiestevan, S. (2001). Use of the Spanish language in the United States: trends, challenges, and opportunities. Charleston WV. (Eric document reproductive service No. ED 335167).
- Shannon, S. (1996). Minority parent involvement: A Mexican mother's experience and a teacher's interpretation. Education and Urban Society, 29 (1), 71-84.
- Sherrill, C. (1998). Adapted physical activity, recreation, and sport: crossdisciplinary and lifespan. Boston, MA: McGraw-Hill.
- Smith, R., Salend, S., & Ryan, S. (2001). Watch your language: Closing or opening the special education curtain. Teaching Exceptional Children, 33 (4), 18-23.
- Sparks, G. (1994). Culturally responsive pedagogy: A framework for addressing multicultural issues. JOPERD, 65, 33-61.

Surgeon General's Report on Physical Activity and Health (2001). Retrieved December 22, 2001, from <http://www.cdc.surgeongeneral.gov.html>

Surgeon General's Report on Overweight and Obesity (2001). Retrieved December 22, 2001, from <http://www.cdc.surgeongeneral.gov.html>

Turnbull, A., Blue-Banning, M., & Pereira, L. (2000). Successful friendships of Hispanic children and youth with disabilities: An exploratory study. Mental Retardation, 38 (2), 138-153.

U.S. Department of Health and Human Services. Healthy People 2010: Understanding and Improving Health. 2nd ed. Washington, DC: U.S. Government Printing Office, November 2000

U.S. Bureau of the Census. (2000). Washington, DC: Retrieved December 22, 2001, from <http://www.census.gov>

Villanueva, I. (1996). Change in the educational life of Chicano families across three generations. Education and Urban Society, 29 (1), 13-33.

Warren, J. (1996). Educational inequality among White and Mexican-origin adolescents in the American southwest. Sociology of Education, 69, 142-158.

Wessinger, N. (1994). Celebrating our differences – fostering ethnicity in homogenous settings. JOPERD, 65, 62-68.

Zamabara, R., & Logie, L. (2000). Latino child health: Need for inclusion in the US national discourse. Journal of Public Health, 90 (12), 1827-1831.

Zentella, A. (1997). Latino youth at home, in their communities, and in school: The language link. Education and Urban Society, 30 (1), 122-130.

Zuniga, R. (1992). Developing cross-cultural competence. Baltimore MD: Paul H. Brooks. ED 346 190.

APPENDICES

APPENDIX A: REVIEW OF LITERATURE

It is clear that the majority of Americans are in need of more physical activity, especially youth, minorities, and individuals with disabilities (U.S. Department of Health and Human Services [USDHHS], 2000). The many significant benefits of physical activity are well documented in the literature (Gorden-Larsen, McMurray, & Popkin, 1999; Pearce, 1999; USDHHS, 2000). Although literature specific to physical activity and health issues relative to the rapidly growing Latino population in America are limited, there is some literature that supports the general problems and concerns addressed in this paper.

Physical activity trends and resultant health consequences among the Latino population are of key concern (National Center for Disease Control and Prevention's *Report on Adolescent and School Health* [CDCRASH], 1997; Surgeon General's Report on *Overweight and Obesity* [SGROO], 2001; Surgeon General's Report on *Physical Activity and Health* [SGRPAH], 2001; USDHHS, 2000). Although there is limited information identifying the specific reasons for the high rates of physical inactivity among the Latino population, some general reasons are offered as well as strategies for improvement (Cooper, Denner, & Lopez, 1999; Gorden-Larson et al. 1999; Pearce, 1999; SGRPAH, 2001; Wessinger, 1994).

Latinos living in the United States possess a variety of unique challenges that impact their health and well being (Alvararez, 1998; Bailey, Skinner, Rodriquez, Gut, & Correa, 1999; Shannon, 1996; Villanueva, 1996; Warren, 1996; Zambrana, & Logie, 2000). How these obstacles might result in deterrents to

physical activity is of critical importance. Of significant concern is the role that the Latino culture and Spanish language play in the learning and acculturation process (Zentella, 1997). There has been limited focus in the physical education literature on general multicultural education concepts and culturally relevant pedagogy (Chepyator-Thomas, 1994). However, the degree to which multicultural training, language skills, and culturally sensitive teaching play in the efficacy of physical education teachers' ability to transfer knowledge and skills to diverse groups such as Latinos is not addressed in the literature.

By definition, physical education is a likely content area of learning that can help foster higher rates of physical activity for all individuals. Physical educators are in a key position to help all students realize their potential and life-long enjoyment of an active lifestyle (Sherrill, 1998). Some general strategies that might help physical educators and other professionals improve the health and physical activity patterns of Latinos and other diverse groups are offered in the literature (Butt & Pahnos, 1995; Chepyator-Thomas, 1994; Sparks, 1994; Wessinger, 1994). These include ways that physical educators can continue to improve their own attitudes and knowledge toward working with Latinos, as well as the knowledge and attitudes of their students. Given the importance of physical activity in the lives of all human beings and the clear differences in physical activity and health patterns in America, the information included in this paper is

intended to make a small contribution toward eliminating racial and ethnic disparities in health and wellness.

PHYSICAL ACTIVITY

The document *Healthy People 2010: Understanding and Improving Health* represents the U.S. Department of Health and Human Services' development of the current health objectives for our nation. It is a comprehensive plan for improving the health of all people in the United States during the first decade of the 21st century. *Healthy People 2010* reflects the scientific advances that have taken place over the past 20 years and mirrors the changing demographics of our country. The vision for *Healthy People 2010* is "Healthy People in Healthy Communities." The developers of *Healthy People 2010* believe that community health is strongly affected by the collective attitudes, beliefs, and behaviors of every person who lives in the community (USDHHS, 2000). This places emphasis on the importance of determining our own attitude and knowledge levels toward underrepresented groups such as Latinos. In addition, it points to the significance of providing accurate information to help foster better attitudes and more awareness about diverse groups. Ultimately, fostering positive health related behavior, such as increases in physical activity, is a primary objective.

Two primary goals of *Healthy People 2010* address our nations' changing demography. The first goal is to increase the quality and years of healthy life. This

speaks to the fact that we are growing older as a nation and consequently are seeing a host of age related health issues. The second goal, which specifically addresses the diversity of our population, is to abolish health disparities. In addition, a set of Leading Health Indicators are provided in *Healthy People 2010* to help individuals and communities target actions to improve health. The Leading Health Indicators are also vital for helping communities track the efficacy of these actions (USDHHS, 2000).

The second primary goal of *Healthy People 2010*, abolishing health disparities among segments of the population -- including differences that occur by race or ethnicity -- relates to one of the major themes and goals of this study. The Mexican American and Latino population as a whole is currently identified as having significant health disparities, which cannot be explained by biology and genetics (USDHHS, 2000). Latinos living in the U.S. are nearly twice as likely to die from diabetes as are non-Latino whites. Latinos also have higher rates of obesity and high blood pressure than non-Latino whites. As Latinos are identified as being less physically active than whites, one positive approach to reducing and preventing health problems is increasing physical activity behaviors (USDHHS, 2000). More specifically, by determining strategies to increase physical activity levels of Latinos, one would hope to see a decrease in associated health disparities.

For the purposes of this study, Physical Activity represents The Leading Health Indicator that is of critical importance. One of the *Healthy People 2010*

objectives identified to measure progress among adolescents in this area is to see an increase in the number of individuals who engage in vigorous physical activity.

Vigorous physical activity is described as activities that promote cardiorespiratory fitness (i.e., running, basketball, and/or riding bicycles) and take place three or more days per week for 20 or more minutes at a time (USDHHS, 2000). According to the CDCRASH (1997), Latino students were significantly less likely than white students to participate in vigorous physical activity.

Similarly, Gordon-Larson et al. (1999) found that adolescent physical activity and inactivity vary by ethnicity. Their study was important as it not only identified the times per week that individuals participated in moderate to vigorous physical activity among sub-populations, it also identified the hours per week of inactivity; particularly for the number of hours of watching television or video viewing per week. Findings indicated that minority adolescents, including Latinos, have consistently higher levels of inactivity. Latino adolescents were found to be second only to non-Latino black males and females in number of hours of television watched per week and combined television, video, and computer time per week. Both male and female Latino adolescents were shown to participate in fewer sessions of moderate to vigorous physical activity per week than their white counterparts. Most alarming was that Latino females reported participating in zero to two sessions of moderate to vigorous activity per week (Gordon-Larson et al. 1999).

Overweight and obesity is another critical Health Indicator that has a direct relationship with physical inactivity (USDHHS, 2000). Childhood and adolescent overweight is a major public health problem for American youth, particularly due to its quick increase in prevalence, continuance into adulthood, and myriad health consequences (Gorden-Larsen et al. 1999). Physical activity not only has a profound influence on managing one's weight; it has also been associated with host of other beneficial health outcomes for adolescents. Regular physical activity during one's youth may have a positive impact on growth and development as well as psychological and emotional outcomes, which may continue into adulthood. In their study on physical activity and inactivity by ethnicity, Gorden-Larsen et al. (1999) estimated that Latino male adolescence had the highest instance of being overweight and Latino females were second only to non-Latino black females in overweight status. The pattern is clear. Lower levels of physical activity combined with higher rates of inactive behaviors such as watching television are likely to translate into weight problems and other associated health problems.

LATINOS IN AMERICA

Latino Culture

A common language unites Latinos; however, they are not a homogeneous group. Latinos include people from Mexico, Central and South American, the

Caribbean, and Spain. Most Latino immigrants come from Mexico and come to improve their quality of life. Most Latinos are religious people. Catholics are in the majority, however, the number of Latinos belonging to other religions is growing (Alvarez, 1998). Latinos also represent tremendous diversity with regard to socioeconomic status, race, age, and the characteristics and timing of their immigration (Espinosa, 2001). In fact, differences among Latino subgroups in communication styles and social practices can often be greater than the differences between Latinos and non-Latinos (Haycock & Duany, 1991).

Although Latinos are the fastest growing ethnic group in the U.S., not much is understood about how the Latino culture might interact with the typical American school culture to foster positive outcomes for Latino children (Espinosa, 2001). Some distinct differences exist in the way Latino and other American children are socialized. Latinos often emphasize obedience and typically have a strong respect for adults in authority. Moreover, throughout the Latino culture, there is a widespread belief in the absolute authority of schools and teachers (Espinosa, 2001). Latino parents often believe that it is the school's duty to educate their kids, while their job is to nurture. Latinos also often believe the two jobs cannot be combined. For many Latino parents, if their child has learned positive moral and ethical behaviors, he is considered to be well educated.

Latinos generally have strong family ties, believe in family loyalty, and have a collective nature that supports a sense of community belonging (Zuniga,

1992). Latinos also demonstrate a warm, personal style of interaction, a relaxed sense of time, and a fondness for a casual environment for communication. With these characteristics, cultural friction could result when Latino students and parents are confronted with the standard achievement-oriented style of most American educators (Espinosa, 2001). The general cultural characteristics of Latino students and families are important to understand; however, they should not be overgeneralized or assumed true for all Latinos -- every family and student is unique. It is critical that educators carefully learn the unique beliefs, values, and practices of the students and families in their schools and community. Additionally, teachers should examine their own attitudes and knowledge about working with minority groups such as Latinos (Pedersen, 1988).

Language

Although the Spanish language is one of the most unique and attractive attributes of the Latino culture, it can also be a barrier in the learning and acculturation process. It is not only important that educators are able to communicate with Spanish speaking students and families, it is equally important that educators are aware of the profound link that one's language provides to his home, school, community, and culture (Alvarez, 1998; Santiestevan, 2001; Villanueva, 1996; Zentella, 1997). The primary role of language in human life has been acknowledged for many years, but modern science has confirmed that children

are socialized through language and to language even before birth (Zentella, 1997). For instance, children react to the mother's voice and to her specific language even in the womb. Throughout childhood, their speech and ways of speaking identify them as members of their particular group.

It is important to note that just as English differs throughout the world, the varieties and dialects of Spanish spoken around the world and in the U.S. differ. These language nuances are among the most prominent markers of ethnic identity and pride for Latino communities in the United States (Zentella, 1997). Sadly, most children whose primary language is Spanish are discouraged from using their first language in school. Therefore, the diverse linguistic abilities that Latinos learn in their homes and communities are not utilized by the educational system.

Zentella describes this as a subtractive rather than additive approach that often results in students leaving school without the ability to speak, read, or write English well enough to earn a high school diploma, and their ties with their family and culture are weakened at the same time. The struggle between what is rewarded in school and expected at home, and the stress caused by learning to speak and act appropriately in both worlds, make most Latino children true "border children" (Zentella, 1997). Perhaps the most profound argument for the on ongoing maintenance and understanding of the Spanish language in the United States is the continuous arrival of new Latino immigrants (Santiestevan, 2001). In the next two decades it is projected that the Latino student population will grow from 13% to

20%, placing even greater demand for culturally competent teachers (Zambrana & Logie, 2000). It can be seen that the language and cultural skills we foster in today's youth will have an enormous impact on future generations.

Barriers Latinos in America Face

The problematic education and sociocultural characteristics of Latinos in the U.S. speak for themselves. Latinos as a group are the poorest of all racial and ethnic groups in the U.S. In 1998, 34% of Latino children lived in poverty. (Hughes, Schumm, & Vaughn, 1999). The low socioeconomic status of Latinos is a significant determinant of health status and outcomes for Latino children and accounts for a large proportion of ethnic-specific group disparities (Zambrana & Logie, 2000).

Latinos are characterized as having the lowest levels of educational achievement and are said to be one of the most educationally vulnerable minority groups in America (Espinosa, 2001). They start kindergarten behind their peers and by age 13 are at least one year behind expected grade level. More than 40% of Latino students drop out before completing high school. While the academic achievement levels and dropout rates for other racial and ethnic groups have improved in the past decade, Latino school performance has continued to decline (Liontos, 1992). In order to reverse this situation, educators must understand the

language and cultural factors that may be acting as barriers to Latino children's educational success and lifelong well being.

In a study by Hughes et al. (1999) a group of Latino parents were asked what barriers they faced while assisting their children with homework. The most common response was that parents had difficulty with the English language, which strongly hindered their ability to assist their children. This is an example of critical information for an educator to know in terms of a possible explanation for poor performance. In terms of barriers to physical activity and healthy lifestyles, Latinos have obvious financial barriers. Many sport and leisure activities, whether they are school or community based, cost a substantial amount of money. The previously mentioned high rates of inactivity (i.e., television and video time) are also significant barriers to physical activity (Gorden-Larsen et al. 1999).

Other barriers include a lack of a safe environment or safe facilities for physical activity and recreation or a complete lack of facilities (Pearce, 1999). Among the most insidious barriers that Latinos and other minority groups face are institutional barriers such as negative attitudes, and availability of information in their native language. Institutional barriers have been consistently identified as strong predictors of health behaviors (Zambrana & Logie, 2000).

PHYSICAL EDUCATION

The role of physical educators in empowering young people to live healthy and productive lives should not be underestimated. Physical educators are responsible for developing physical and motor fitness, fundamental motor skills and patterns, and skills in aquatics, dance, and individual and group games and sports – including intramural and lifetime sports (Sherrill, 1998). In addition, physical education includes the cognitive, affective, and psychomotor domains of learning. Not only does this foster knowledge and skills, it also teaches positive social behavior. The ultimate goal of physical education is to develop active, healthy lifestyles at all ages and to assist all individuals in realizing their potential. Beyond the relative content knowledge required to teach such a large continuum of concepts and skills, physical educators must possess an attitude of acceptance and inclusion as well as a philosophy that guides such practices (Sherrill, 1998).

Given the current health and physical activity disparities Latinos in the U.S. face, along with the projected rise in the Latino population, it appears that physical educators will play a pivotal role in the future wellness of the Latino and other minority populations. The physical education profession has a tremendous responsibility to teach and advocate equal opportunity and high standards in physical education, recreation, and sport. Teaching physical education in a multicultural context is not an easy task. Providing excellence and equality in physical education is tough to achieve when educators and students have different

styles of communication, patterns of experience, and perceptions of the world (Butt & Pahnos, 1995).

Culturally responsive physical education is a proactive approach to teaching and celebrating individual differences. Moreover, culturally responsive educators are aware of and are responsive to the cultural identity of their students (Sparks, 1994). This means that teachers have a moral responsibility to be culturally responsive and should design a curriculum that is appropriate for the educational needs of students from diverse cultural backgrounds. Culturally responsive teaching recognizes the significance of culture, language, race, gender, ability, and other characteristics that highlight the unique qualities of a group or person (Sparks, 1994).

The efficacy of culturally responsive teaching and fostering inclusive environments is largely dependent on the attitudes of both physical education teachers and their students. Wessinger (1994) describes a positive attitude in a cultural sense as one's appreciating the value of cultural diversity and human rights, accepting one's own differences and appreciating those of others, and being prepared to take action on behalf of others. Although there have been a number of studies evaluating the attitudes of physical education teachers and their students toward working with individuals with disabilities (Kowalski & Rizzo, 1996; Krampf, Folsom-Meek & Groteluschen, 1996; Rizzo, 1984), no such research has been conducted on attitudes toward working with the Latino population.

The competence of physical educators toward working with individuals with disabilities has been shown to elicit positive attitudes toward this population (Rizzo & Vispoel, 1991). Likewise, one would presume that an increase in physical educators' competence toward the Latino culture and language would translate into more favorable attitudes toward working with Latinos. With favorable attitudes, an increase in physical activity and a decrease in health disparities among Latinos would likely be realized.

Teaching Strategies

Like most parents, Latino mothers and fathers want their children to succeed in school and life. Latino parents have been described by some educational professionals as being the great "untapped resource" (Nicolau & Ramos, 1990). Their love for their kids, dedication to family, respect for education, and aspiration for a better life have seldom been capitalized on by the educational community. Espinosa (2001) describes several strategies for improving the education relationship between teachers and Latino parents and students. These strategies have been shown to be successful in early education programs and schools that have successfully involved Latino parents. According to Espinosa, the most crucial element is making face to face contact in the family's native language. This further reinforces the importance of teachers having functional Spanish language skills. Next is gaining the trust and respect of Latino parents. In order to foster trust,

teachers need to use non-judgmental communication. It is paramount to support strengths and avoid placing blame. This speaks to the importance of being culturally knowledgeable and sensitive. Bilingual support in general is important. As much communication as possible with Latino parents, verbal and written, should be offered in both Spanish and English. Many programs suggest that providing bicultural and bilingual staff helps to foster trust (Espinosa & Lesar, 1994).

Espinosa also suggests that administrative support, staff development, and community outreach are vital to successful educational involvement. Flexible policies and offering a welcoming environment are helpful practices. All teachers and staff should understand and continue to learn about the key characteristics of the Latino culture and its impact on their students' behavior and learning. Ultimately, it is the teacher's responsibility to learn as much as possible about their student's culture and background. Based on the aforementioned educational status of Latinos in the U.S., there is clearly a sense of urgency in employing the strategies described herein. As teachers strive to improve cross-cultural communication and narrow cultural gaps between home and schools, educators can develop a solid foundation for future education success (Espinosa, 2001).

According to the SGRPAH (2001), there are a host of potential solutions that communities can employ and physical educators can advocate to help increase the physical activity levels of our youth. First, schools need to provide quality,

preferably daily, Kindergarten through 12th grade physical education classes that are taught by physical education specialists. Secondly, communities and schools need to create opportunities for physical activities that are fun, promote self-confidence, and involve friends, peers, and parents. Appropriate, physically active role models, such as physical education teachers, are critical in terms of generating interest and motivation toward physical activity. Access needs to be provided to school buildings and community facilities that enable safe participation of physical activity. Additionally, a broad range of extracurricular programs in schools and community facilities should be offered to meet the needs and interests of specific populations, such as racial and ethnic minorities. These are all areas physical educators can help with.

The state of America's health and physical activity levels is not good (USDHHS, 2000). There are many challenges specific to the Latino population in America regarding health and wellness issues. These challenges include serious health concerns, cultural and language barriers, as well as social-class hardship and prejudice (Alvarez, 1998; Fradd & Correa, 1989; Rueda & Martinez, 1992; Zambrana & Logie, 2000). Increasing physical activity levels appear to be a good first step in addressing Latino health issues.

The benefits of regular physical activity are substantiated throughout the literature (USDHHS, 2000). It is critical that public health and physical education efforts focus on promoting physical activity and providing opportunities for non-

sedentary activities, particularly for female and minority youth (Gorden-Larsen et al. 1999). The need for a greater multicultural focus in our schools as well as basic strategies to address such issues are an important area of concern (Butt & Pahnos, 1995; Sparks, 1994; Wessinger, 1994; Chepyator-Thomas, 1994). The role of physical educators has been shown to be an important aspect of reducing ethnic health disparities and for reaching the goals of Healthy People 2010 (USDHHS, 2000). More specifically, the attitudes of physical educators are of primary importance. The mission of Healthy People 2010, “Healthy People in Healthy Communities” speaks to the significance of a collaborative approach to increasing physical activity levels and decreasing ethnic health disparities.

APPENDIX B: INTERNAL REVIEW BOARD APPROVAL

INSTITUTIONAL REVIEW
BOARD



OREGON
STATE
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Telephone
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February 28, 2002

Principal Investigator:

The following project has been approved for exemption under the guidelines of Oregon State University's Institutional Review Board (IRB) and the U.S. Department of Health and Human Services.

Principal Investigator(s): Joonkoo Yun
Student's Name (if any): James Kirk Tabb
Department: Exercise and Sport Science
Source of Funding: None
Project Title: A Survey of Physical Education Teacher's Attitudes and Knowledge toward Serving Latinos with and without Disabilities
Protocol Number: 1820

Comments:

This approval is valid for one year from the date of this letter. A copy of this information will be provided to the Institutional Review Board. If questions arise, you may be contacted further. Please use the included forms as needed.

- The original stamped informed consent document is to be used to enroll new participants in this study. Please make copies of this original as needed.
- The ADVERSE EVENT FORM is to be used to report any happening not connected with routine expected outcomes that result in bodily injury and/or psychological, emotional, or physical harm or stress.
- The MODIFICATION REQUEST FORM must be submitted for review and approval prior to implementation of any changes to the approved protocol.

Sincerely,

Laura K. Lincoln
Laura K. Lincoln
IRB Coordinator

APPENDIX C: INFORMED CONSENT/COVER LETTER

Monday, February 4, 2002

Dear fellow physical educators:

We would like to take this opportunity to invite you to participate in a research project that will examine physical education teachers' attitudes, awareness, and knowledge toward working with Mexican American students and their families. As you may know, we are experiencing a rapid increase in serving students and families from diverse backgrounds. The results of this project will provide information that will help physical educators work more effectively with Latinos and other diverse populations. In addition, the information gathered will help you and I solve future problems related to multicultural issues. Ultimately, the purpose of this project is to provide useful information that will help us to determine best teaching practices, which will likely translate into more positive movement experiences for all.

I am requesting that you complete the survey provided in your conference packet and return it at the conclusion of this session. The survey is titled "Mexican American Attitude and Knowledge Survey." Participation in this project is strictly voluntary and all individual information obtained will be held in the strictest confidence. The results of the project will be reported anonymously (no names will appear in any papers or presentations). Participants are free to withdraw their participation in this study at any time. Please place completed surveys in the containers provide at the conference.

Thank you for your cooperation and support with this study. This is a tremendous opportunity to work together to achieve the common goal of excellence in physical education. If you have any questions concerning the survey or project, please contact me at the phone number below.

Sincerely,

James Kirk Tabb
Oregon State University
Women's Bldg. 107E, Corvallis OR 97330
Home: (541) 738-2706
Work: (541) 737-5927
tabbj@onid.orst.edu

APPENDIX D: SURVEY

MEXICAN AMERICAN ATTITUDE AND KNOWLEDGE SURVEY

This instrument asks general questions to assist in understanding physical educators' current knowledge, attitude, and experiences with regard to working with Latino students. Your responses to these questions will contribute to the analysis of a variety of variables that will help us to maximize teacher effectiveness in working with diverse populations. There are no correct answers; your personal input will be our most valued contribution. Please check/circle where appropriate and comment as needed.

Background

Age _____ Gender M F State Teaching In _____

Terminal Degree: BA _____ BS _____ MAT _____ MA _____ MS _____ Other _____

Type of Teaching License: PE _____ APE _____ Other _____

Current Position PE _____ APE _____ Other _____

Year Degree Year License Years Teaching PE _____
 Earned _____ Earned _____

Experience

Have you had in-service/job related training on multicultural issues?	Y	N
Did you take a multicultural course in your teacher preparation program?	Y	N
Have you taken continued education coursework on multicultural issues?	Y	N
Do you speak and understand Spanish at a level that would allow you to communicate directions to a Spanish-speaking student or parent?	Y	N
Have you taught Spanish-speaking students in the past 5 years?	Y	N
Have you had in-service/job related training in adapted physical education?	Y	N
Did you take an adapted physical education course in your teacher preparation program?	Y	N
Have you taken continued education coursework in adapted physical education?	Y	N
Have you taught students with disabilities in the past 5 years?	Y	N

MEXICAN AMERICAN ATTITUDE & KNOWLEDGE SCALE

Doyle & Chng, 1994

Please read each statement carefully and circle a single response which best corresponds to your agreement. There are no right or wrong answers.

1 = Strongly disagree, 2 = Disagree, 3 = Uncertain, 4 = Agree, 5 = Strongly agree

1. No special programs should be made to help Mexican Americans.
 Strongly disagree 1 2 3 4 5 Strongly agree

2. Colleges and universities should prepare graduates to work effectively with Mexican American students and clients.
 Strongly disagree 1 2 3 4 5 Strongly agree

3. It is acceptable for a non-Mexican American who is proficient in Mexican American culture to work with them.
 Strongly disagree 1 2 3 4 5 Strongly agree

4. If I were required to take a course on Mexican American culture in order to be a health educator, I would change my major field of study.
 Strongly disagree 1 2 3 4 5 Strongly agree

5. I would feel comfortable working closely with a Mexican American co-worker.
 Strongly disagree 1 2 3 4 5 Strongly agree

6. I would feel uncomfortable if I learned my new neighbor is a Mexican American family.
 Strongly disagree 1 2 3 4 5 Strongly agree

7. I would feel comfortable being in a group of Mexican Americans.
 Strongly disagree 1 2 3 4 5 Strongly agree

8. If I heard two Mexican Americans speaking Spanish to each other in my presence, I would be offended.
 Strongly disagree 1 2 3 4 5 Strongly agree

9. I would feel uncomfortable if I were invited to meet the family of my Mexican American co-worker or friend.
 Strongly disagree 1 2 3 4 5 Strongly agree

10. I think it is wrong for Mexican Americans to ask for special treatment since it will interfere with their assimilation into mainstream society.
Strongly disagree 1 2 3 4 5 Strongly agree
11. Mexican American culture is just so foreign to me that I will never feel comfortable enough to work with people from that culture.
Strongly disagree 1 2 3 4 5 Strongly agree
12. I don't mind living in a multi-cultural community with Mexican American Neighbors.
Strongly disagree 1 2 3 4 5 Strongly agree
13. I would feel comfortable if my Mexican American friend or neighbor invited me into their home.
Strongly disagree 1 2 3 4 5 Strongly agree
14. I would feel uncomfortable working with Mexican American clients or students.
Strongly disagree 1 2 3 4 5 Strongly agree
15. Spanish is a beautiful language and I enjoy hearing it spoken.
Strongly disagree 1 2 3 4 5 Strongly agree
16. The funds and energy invested in developing Mexican American programs on campus could be better used elsewhere.
Strongly disagree 1 2 3 4 5 Strongly agree
17. I should receive special cross-cultural training in school to prepare me for work with Mexican Americans.
Strongly disagree 1 2 3 4 5 Strongly agree
18. I find that Mexican American men are just too macho in their attitude and behavior.
Strongly disagree 1 2 3 4 5 Strongly agree
-

Please read each statement carefully and circle a single response which best corresponds to your beliefs on Mexican American culture.

1. In traditional Mexican American culture, a family is one in which:
 - a) Only the parents and children live together.
 - b) The parents are married and strictly monogamous.
 - c) Parents, children, and relatives live together.
 - d) A single mother raises the children alone.

2. Which of the following statements is false of traditional Mexican American culture?
 - a) Close family ties are seen as normal and there is no need to become independent of the family.
 - b) The female is regarded as the social “glue” that holds the family together.
 - c) The male is expected to be the disciplinarian.
 - d) Children are only valued for their economic contribution to the family.

3. In traditional Mexican American culture:
 - a) The male advocates a double standard of sexual morality.
 - b) The female is encouraged to be independent of the male.
 - c) The elderly are treated as important only if they continue to contribute economically to the family.
 - d) Children who misbehave should be disciplined in public.

4. Which of the following statements regarding traditional Mexican American culture is false?
 - a) Touching is commonplace among family members but not extended to non-family members.
 - b) To stare at an elder or a person in authority is disrespectful.
 - c) Mexican Americans speak Spanish to each other to establish rapport and camaraderie.
 - d) Among Mexican Americans, a female who initiates eye contact with a male in a professional setting is showing sexual interest.

5. In traditional Mexican American culture, the person in authority is expected to:
 - a) Always be a male.
 - b) Provide specific solutions to the problem.
 - c) Not share personal information with you.
 - d) Involve you actively in the decision-making process.

6. When faced with problems, the traditional Mexican American individual first turns to:
 - a) The family for support and help.
 - b) Professionals whom he or she trusts.
 - c) Trusted friends and colleagues.
 - d) Telephone hotlines.

7. Which of the following statements is false concerning traditional Mexican American culture?
 - a) Sexuality is not usually discussed either in family or professional settings.
 - b) Excessive public display of affection even among family members is forbidden.
 - c) It is not acceptable to express anger in the presence of elders.
 - d) To argue on public is acceptable if you feel strongly about your position.

8. Which of the following descriptions of the traditional Mexican American female is false?
 - a) A good mother centers her life around her children at great sacrifice.
 - b) It is culturally acceptable for a woman to earn more than her husband.
 - c) The married woman who is aware of her husband's extramarital affairs is expected to suffer in silence.
 - d) Women are expected to be submissive to male family members.

9. Traditional Mexican Americans often think that a hospital:
 - a) And folk remedies should not be used together.
 - b) Is a place to get good health information.
 - c) Is designed to prevent health problems.
 - d) Is a place where you go to die.

10. Which of the following is false?
 - a) Among Mexican Americans, inhalant use is common among youths and young adults.
 - b) Overweight is common among Mexican Americans, especially among women.
 - c) High blood cholesterol is a serious problem among Mexican Americans.
 - d) Smoking among Mexican American females is socially unacceptable.

11. Which of the following is false?
 - a) Regarding AIDS/HIV infection, the Mexican American rate is nearly 3 times than for non-Mexican Americans
 - b) The Mexican American diet is thought to be low in animal fat but high in carbohydrates and fiber
 - c) The median Mexican American age is younger than for the total population.
 - d) Heart disease and cancer are 2 of the leading causes of death for Mexican Americans.

12. Which of the following is false concerning traditional Mexican American culture?
 - a) Direct eye contact with authority figures would be considered disrespectful.
 - b) A Mexican American who is late for an appointment does not necessarily regard it as being irresponsible.
 - c) Refusing an offer of food or drink when visiting a Mexican American family is considered rude.
 - d) When working with a Mexican American family, school children can serve as interpreters if adults are unavailable.

13. In traditional Mexican American culture, when you are sick,
 - a) It means that bacteria and viruses are responsible.
 - b) It is acceptable to first seek folk remedies before visiting a physician or clinic.
 - c) You expect to play an active role in treatment
 - d) You do not involve the family in your treatment.

14. Regarding sexuality in traditional Mexican American culture:
 - a) It is commonly discussed among adults of the same gender.
 - b) It is acceptable for a woman to have an affair if her husband first had an affair.
 - c) Contraceptive responsibility is equally shared by both male and female.
 - d) Homosexual behavior is permissible if the person doesn't identify self as homosexual.

15. Which of the following is false concerning traditional Mexican American culture?
- a) The community is considered an extension of the family.
 - b) Barbershops, grocery stores, and churches are the center of social life in a Mexican American community.
 - c) Social leaders in a Mexican American community are often more influential than elected officials.
 - d) Men will attend health programs if they are organized by local church staff.

Correct Answers: 1c, 2d, 3a, 4d, 5c, 6a, 7d, 8b, 9d, 10c, 11b, 12d, 13b, 14d, 15d