

MUJERES ACTIVAS: SOCIOCULTURAL INFLUENCES OF PHYSICAL ACTIVITY
ON ADOLESCENT GIRLS AND THEIR MOTHERS OF MEXICAN DESCENT

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the Degree

Master of Science

In

Kinesiology: Physical Activity: Social Scientific Perspectives

by

Carolina Talavera Martinez

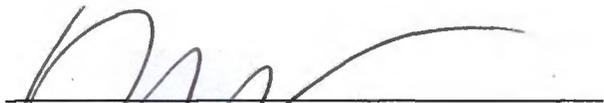
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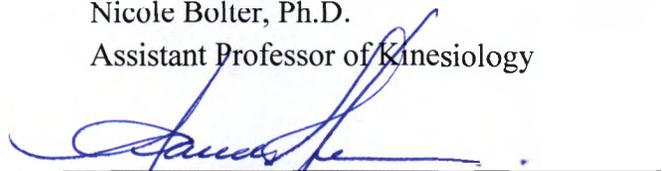
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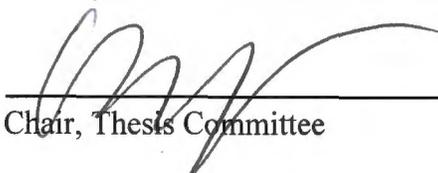
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Carolina Talavera Martinez
San Francisco, California
2019

Obesity and inadequate physical activity (PA) are risk factors for cardiovascular and chronic diseases. According to the Centers for Disease Control and Prevention, approximately one in six youth are obese, and only 27.1% of adolescents meet the minimum federal recommendations of 60 minutes of daily moderate-to-vigorous physical activity. Latina girls have the lowest rates (14.7%) compared to white (19.5%) and black adolescent girls (16.6%). Among Latino adults, only 16% meet the federal guideline of 150 minutes of moderate activity. There are reported differences in PA engagement within Latino subpopulations (e.g. Mexican, South or Central American, Dominican, Cuban, Puerto Rican, etc.). Individuals of Mexican origin constitute 63% of the total Latino population in the US. This raises important questions about the influence of specific sociocultural variables on PA engagement within this subpopulation. The aim of this study was to investigate the influence of sociocultural variables (e.g. cultural values, perceptions and practices) of PA of mothers of Mexican descent on their adolescent daughters' PA behavior. N=10 mothers of Mexican descent and their daughters (ages 10-12) were interviewed. Interviews were transcribed, translated, and thematically analyzed. The themes that emerged from the mothers' interviews showed cultural influence and perceived benefits effect their perceptions and practices of PA for themselves and their daughters. Themes that emerged from daughters' interviews showed social support, perceived benefits, and perceived barriers effect their own PA participation. Overlapping themes from both groups include PA participation as a family and perceived benefits of PA. The results of this study can inform future development and implementation of PA interventions to potentially increase PA participation among this population.

I certify that the Abstract is a correct representation of the content of this thesis.



Chair, Thesis Committee

5-21-19

Date

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Introduction/Literature Review

Obesity and inadequate physical activity are risk factors for cardiovascular and chronic diseases such as heart disease, type 2 diabetes, cancer, and psychological issues such as low self-esteem, anxiety and depression (CDC, 2015). According to the Centers for Disease Control and Prevention, obesity affects over a third of adults and approximately one in six youth (CDC, 2015).

The recommended amount of moderate-to-vigorous physical activity (MVPA) for youth is at least 60 minutes daily (Physical Activity Guidelines, 2008). However, there is a significant decline in physical activity among girls, ages 12-15 (Belcher et al., 2010; Grieser et al., 2006; Hsu et al., 2011). Approximately 27.1% of adolescents meet the recommended MVPA guidelines (Kann et al., 2016). According to 2016 surveillance data, only about 17.7% of adolescent girls engage in daily MVPA for 60 minutes in comparison to 36% of boys (Kann et al., 2016). Belcher et al. (2010) investigated physical activity levels by age in the US and found that youth aged six to eleven-years spend about 88 minutes per day in MVPA, decreasing to 33 minutes per day among those ages twelve to fifteen, and 26 minutes per day for youth aged 16-19.

Latinos in the US

The US census defines “Hispanic or Latino” as people of Mexican, Cuban, Puerto Rican, Central or South American, or any other Spanish culture or origin regardless of race (U.S. Census Bureau, 2011, p.2). Both terms are used interchangeably by the Census

Bureau, however, it is important to acknowledge that they should not be used interchangeably as they have different meanings. The term Latino is used for people who originate, or are descendants of people, from countries in Latin America (e.g. Mexico, El Salvador, Brazil, etc.) (Hayes-Bautista & Chapa, 1987). In contrast, Hispanic is used for people who originate from a country that was colonized by Spain and have a heavily Spanish-influenced culture (e.g. Mexico, El Salvador, etc.) (Hayes-Bautista & Chapa, 1987). In much of physical activity research, Latinos are grouped into a single minority population. However, there are many subgroups within this population (e.g., Mexican, South or Central American, Dominican, Cuban, Puerto Rican, etc.) (U.S. Census Bureau, 2011, p.2). It is important to acknowledge the differences within each group because not all Latinos engage in the same amount of physical activity (Neighbors, Marquez, & Marcus, 2008). In the study conducted by Neighbors, Marquez, and Marcus (2008), Latino adults' and white adults' leisure time physical activity (LTPA) engagement were compared using data from the National Health Interview Survey from 2000 through 2003. Neighbors, Marquez, and Marcus (2008) showed that whites were more active than all Latino subgroups, and there was a notable difference in physical activity engagement within the Latino subgroups. Mexican Americans were most active, while Cubans and Dominicans were the least active groups. Investigating Latino subgroups individually is significant because while Latino subgroups may share some similarities, they are still heterogeneous groups.

In this literature review, I operationally define the term Latino to describe both Hispanics and Latinos. I chose Latino over Hispanic because Latino was utilized more often within the literature I reviewed.

According to the CDC, low income and minority populations are more likely to have higher rates of overweight and obesity (CDC, 2015). One of the minority groups is identified as Latino. As of April 1st, 2010, the US Census data indicated that there were 50.5 million Latinos in the US, making them the largest racial or ethnic group. The estimated total number of Latinos in the US is 57.7 million as of July 1st, 2016, and people of Mexican origin make up 63% of that population, making them the largest Latino group in the US (U.S. Census Bureau, 2016; U.S Census Bureau, 2017).

According to Larsen, Pekmezi, Marquez, Benitez, and Marcus, (2013), Latino women are one of the fastest growing minority groups in the US, yet they have some of the lowest levels of physical activity in comparison to all other demographic groups. About 47.8% of Latino women report that they do not engage in LTPA. Among youth, similar results were obtained by Kelly et al. (2010), who found that 6th grade Latina girls were one of the most sedentary groups when compared to white girls. Most recently, Latina girls were reported to have the lowest rates of physical activity at 14.7% compared with white and black girls (Kann et al., 2016)

In much of physical activity research, Latinos are grouped into a single minority population. However, there are many subgroups within this population (e.g., Mexican, South or Central American, Dominican, Cuban, Puerto Rican, etc.) (U.S. Census Bureau,

2011, p.2). It is important to acknowledge the differences within each group because not all Latinos engage in the same amount of physical activity (Neighbors, Marquez, & Marcus, 2008). In the study conducted by Neighbors, Marquez, and Marcus (2008), Latino adults' and white adults' LTPA engagement were compared. The data analyzed were obtained from the National Health Interview Survey from 2000 through 2003. Neighbors, Marquez, and Marcus (2008) showed that whites were more active than all Latino subgroups, and there was a notable difference in physical activity engagement within the Latino subgroups. Mexican Americans were most active, while Cubans and Dominicans were the least active groups. Investigating Latino subgroups individually is significant because while Latino subgroups may share some similarities, they are still heterogeneous groups.

For this study, the researcher is interested in learning about Mexican descent women and adolescent girls. Culture ultimately shapes peoples' beliefs and lifestyles therefore, it is necessary to further explore Mexican culture (Shein 1991; Tylor 1871).

Culture

Culture is defined as: "that complex whole which includes knowledge, belief, art, morals, law, custom, and any other capabilities and habits acquired by man as a member of society" (Tylor, 1871, p.1). In the literature about Latino culture, familism and traditional gender roles consistently emerged as key aspects of the culture (Cuéllar,

Arnold, González 1995; Cupito, Stein, Gonzalez 2015; Niemann, Romero, Arredondo, & Rodriguez 1999).

Familism

Familism, a primary component of Latino culture, is typically defined by characteristics such as the following: loyalty, obligation, and strong relationship with family (Cuéllar, Arnold, González 1995; Cupito, Stein, Gonzalez 2015; Niemann, Romero, Arredondo, and Rodriguez 1999). Niemann, Romero, Arredondo, and Rodriguez (1999) explored the social construction of ethnic identity in first and second generation Mexican Americans who were primarily low-acculturated. Using focus group methods, participants were asked open ended questions on what it meant to be part of their ethnic group. The majority of participants identified culture as a main component of ethnicity. Participants stated familism, work ethic, and food and celebrations were constructs of Mexican culture. Additionally, participants agreed feeling pride in their heritage/roots, and thought it was significant for their children to learn about their culture and be proud of it as well.

In a more recent study, Cupito, Stein, and Gonzalez (2015), investigated the association between gender and familial cultural values, such as filial obligation, familism, and affiliative obedience among Latino adolescents. The researchers measured the participants' attitudes and beliefs toward the family including: familial support, family interconnectedness, family honor, and subjugation of self. They also measured the

participants' values towards assisting and respecting their families, beliefs regarding their obligations to support and be near their families in the future, and inclination towards obedience. As a result, females reported higher levels of family obligation, and familism compared to males. Familism may influence physical activity among adolescent girls in terms of social support, which will be further discussed in the 'Barriers and Facilitators of Physical Activity' section.

Traditional Gender Roles

In Latino culture, there can be strong adherence to traditional gender role behavior. Raffaelli and Ontai (2004) explored gender-related socialization among Latino families and found that there was strong messaging for girls to behave in stereotypical feminine ways. Cultural definitions of femininity included such behavior as learning to cook and clean and being discouraged from acting like "tomboys" as they got older. Girls had less freedom, more responsibilities, and limited social activities outside of home in comparison to boys. Adherence to these traditional gender roles may possibly be a main contributing factor to the large physical activity dropout among girls during adolescence. As girls mature, parents may be less likely to encourage physical activity if it is perceived as a masculine activity or as a waste of time.

The Influence of Acculturation on Physical Activity

Acculturation is when one adopts or assimilates themselves to the mainstream culture that they come into contact with (Abraído-Lanza, Shelton, Martins, & Crookes,

2017). There is little agreement in the scholarly literature about the influence of acculturation on the physical activity of Latinos. Some studies have shown that Latinos who immigrate to the United States become less active (Abraído-Lanza, Shelton, Martins, & Crookes, 2017), while other studies suggest that acculturation leads Latinos to be more active (Chrisman, Daniel, Chow, Wu, & Zhao, 2015). Benitez, Dodgson, Coe, and Keller (2016) conducted a review to assess the relationship between acculturation and physical activity in Latinas residing in the US. A total of 33 studies published between 2004 and 2014 that reported a link between physical activity and acculturation in Latina adults were analyzed. Researchers reported that associations between acculturation and physical activity were inconsistently measured and conceptualized in most of the quantitative studies. In qualitative and mixed methods studies, several associations between acculturation and physical activity consistently emerged, including participants living unhealthier lifestyles and being more sedentary after immigrating to the US. Researchers also explained that family values, traditions, and years residing in the US were not defined (Benitez, Dodgson, Coe, & Keller 2016).

The studies are difficult to compare because they used different types of physical activity. For example, Marquez and McAuley's (2006) study explored objective and subjective physical activity of Latinos, the gender differences in physical activity and LTPA, and the relationship between acculturation and varying types of physical activity. They showed that Latina women participated in more household activities, while Latino men participated more in occupational and overall physical activity than women. It was

also shown that acculturation was linked to occupational activity, but not to recreational activity.

Chrisman, Daniel, Chow, Wu, and Zhao (2015) explored acculturation, sociodemographic, and lifestyle variables that were linked to meeting physical activity recommendations in 21,551 members of the Mexican-American “Mano A Mano” cohort in Texas. They reported that fewer than 25% of the female participants met physical activity recommendations. Participants with some college education, who were more acculturated, and current alcohol users were more likely to meet physical activity recommendations.

In contrast, Abraído-Lanza, Shelton, Martins, and Crookes’ (2017) study suggests acculturation is not associated with physical activity. The authors investigated if acculturation, familism, occupational physical activity, and family/friend norms are correlated to three forms of physical activity: resistance training, vigorous LTPA, and moderate LTPA among Dominican women living in New York. Researchers found that majority of women do not engage in vigorous LTPA (74.5%) or resistance training (73.1%) and more than half reported no participation in moderate LTPA (52.1 %). Acculturation was not linked to any outcome. However, increased LTPA and resistance training was correlated with positive family norms on exercise. In other words, family norms are more significant in influencing physical activity participation than acculturation among Dominican women. Since there is little agreement in the current literature, more studies are needed to determine the role of acculturation among Latinas.

Barriers and Facilitators of Physical Activity

Barriers and facilitators to physical activity vary among different groups, but after reviewing existing literature, perceptions of and attitudes toward physical activity, social support, and environmental factors seem to have a significant influence regardless of the group studied (Abbasi, 2014; Belcher et al., 2010; Duyn et al., 2007; Eyster et al., 1998; Grieser et al., 2006; Grieser et al., 2014; Hsu et al., 2011; Keller and Gonzales, 2008; Larsen et al., 2013; Marquez and McAuley, 2006; Vu et al., 2006).

Perceptions of Physical Activity

Perceptions of physical activity may have a positive or negative influence on an individual's physical activity participation. In a qualitative study conducted by Vu Murrie, Gonzalez, and Jobe (2006), middle school girls and boys described physically active girls as tomboys. In comparison to boys, girls were more likely to have a positive outlook on active girls and some even stated they viewed them as "role models." While physically active girls were perceived in a negative way by boys and some girls, there were girls who viewed physically active girls in a positive way. Role models inspire others to engage in similar activities they are involved in, so exposure to more physically active role models may lead to a better perception and participation in physical activity.

Additionally, other barriers might lead to negative meanings of physical activity. For example, internal barriers such as lack of self-discipline, long term illness or disability, feeling stressed along with external barriers such as lack of time are associated

with negative meanings of physical activity (NMPA). NMPA typically lead to less participation in physical activity (Hsu et al. 2011).

Several studies investigating physical activity perceptions of Latinos and women have shown that people who have knowledge of physical activity and perceive it to elicit positive outcomes such as increase strength, sport competence, and improve body image, are more likely to have higher physical activity participation (Eyler et al., 1998; Grieser et al., 2006; Marquez and McAuley, 2006). In contrast, lack of knowledge and negative perceptions of physical activity, such as fear of injury, getting sweaty, feeling embarrassed, and feeling physical discomfort, are reported barriers to physical activity (Eyler et al., 1998; Grieser et al., 2006).

Social Support

Positive encouragement, support from family and friends, support from school peers, and the community is associated with higher levels of physical activity participation among young girls, women, and minority groups (Duyn et al., 2007; Eyler et al. 1998; Hsu et al. 2011; Keller and Gonzales, 2008; Larsen et al., 2013; Marquez & McAuley, 2006; Vu et al., 2006). In contrast, women who reported having low family and friend social support, encountered discouragement, or had to justify LTPA to family and friends, reported lower physical activity engagement (Abbasi, 2014; Hsu et al. 2011; Larsen et al., 2013).

A review of literature assessing social influences on physical activity in Latinas found that effective social support-centered physical activity interventions were mainly group activity oriented and utilized promotoras (a trained Latina health worker providing health education) or people from social networks (Larsen et al., 2013). Another study that assessed a walking intervention among Mexican American women found the main influence that motivated the women to start and maintain their walking was the relationships made from the intervention (Keller and Gonzales, 2008). Women became friends and consistently encouraged and supported each other to live healthier lives by participating in the walking program (Keller and Gonzales, 2008).

Environmental factors on Physical Activity

The environment people are in also affects their development and involvement in physical activity. Some environments promote physical activity and have shown to positively influence physical activity engagement. A prime example is the study by Grieser, Saksvig, Felton, Catellier, and Webber (2014) which investigated adolescent girls' self-reported exposure to environmental interventions that promote physical activity and environmental factors that might affect physical activity. Grieser et al. (2014), found that girls from the intervention schools reported higher exposure to physical activity supportive environments and higher levels of physical activity participation in comparison to the control school girls. The intervention was successful at increasing physical activity levels among adolescent girls, suggesting that a supportive environment can be a physical activity facilitator if done so correctly. Among Latinos,

environmental barriers reported include lack of accessible physical activity sites, living in rural areas with few resources, having poor neighborhood conditions, living in poverty-stricken areas, unsafe traffic conditions, extreme weather, and perceiving their environment to be unsafe due to crime (Abbasi, 2014; Duyn et al., 2007; Eyer et al., 1998; Larsen et al., 2013).

Other Factors

Some components that influence physical activity do not necessarily fit in the categories of perceptions of physical activity, social support, or environmental factors. These factors are more specific to the populations studied. For example, adolescent girls reported staying in shape/having an attractive body, socializing, preventing disease, working toward a goal, staying away from negative influences, becoming more energetic, managing stress, and earning trophies/rewards were seen as reasons to engage in physical activity (Grieser et al., 2006). Conversely, time for chores and homework, limited opportunities, and cost were barriers to being physically active (Vu et al., 2006).

Abbasi (2014) conducted a literature review assessing barriers women encounter to being physically active. In some cultures, there were negative attitudes toward women being physically active and female physical activity was seen as a “cultural taboo”. Additionally, it was considered inappropriate for women to be physically active because they were expected to use their time solely for domestic responsibilities. Moreover, lack of time attributed to social responsibilities such as household work and job-related work

led to lower physical activity participation. Furthermore, being older, married, and having a family to care for resulted in lower physical activity. Limited opportunities leading to social isolation such as language barriers, immigration status, and not having a connection with their neighborhoods or communities decreased physical activity (Abbasi, 2014).

Marquez and McAuley (2006) explored barriers self-efficacy and exercise self-efficacy among Latinos. Barriers self-efficacy referred to how confident participants thought they could exercise for 30 minutes at least 4 times a week when facing common barriers such as bad weather, transportation, and schedule issues; and exercise self-efficacy, referred to their perceived ability to exercise for 30 minutes 4 times a week for 6 six months (Marquez & McAuley, 2006). Adult Latinos who engaged in high levels of LTPA reported higher barriers self-efficacy and exercise self-efficacy compared to Latinos with low levels of LTPA (Marquez & McAuley, 2006). Among Latinas, economic resources, transportation, lack of time, and fear of deportation were identified as barriers (Duyn et al., 2007; Larsen et al., 2013). Researchers also found that physical activity was considered to be a part of culture, and culturally-related physical activity suggestions such as programs promoted by churches or familiar and safe locations, were appealing (Duyn et al., 2007).

Significance of Research

While existing literature provides information on barriers and facilitators to physical activity in youth, minority groups, and Latinas in general, there is a lack of literature that looks into the heterogeneity of Latinas in regard to cultural influences on physical activity perceptions and engagement (Larsen et al., 2013). There are differences in physical activity engagement within subgroups, therefore there may be differences in the way physical activity is perceived, and supported for women within specific subgroups (Neighbors, Marquez, & Marcus 2008). Since culture plays a significant role in shaping the beliefs and lifestyle among Latinas, exploring cultural attitudes will provide necessary insight on how to increase physical activity levels for young girls from different Latino subgroups.

Due to low levels of physical activity among Latina adolescent girls and given that Mexican origin people make the largest subgroup in the U.S, it is important to understand what cultural values are prominent within that population and how these values affect physical activity engagement among adolescent girls (U.S. Census Bureau, 2016; U.S Census Bureau, 2017; Belcher et al., 2010; Grieser et al., 2006; Hsu et al., 2011, Kann et al., 2016).

Statement of Purpose

The aim of this study was to investigate the influence of selected sociocultural variables (e.g. cultural values, and perceptions and practices of physical activity) of mothers of Mexican descent on their adolescent daughters' perceptions and practices of physical activity.

Methodology

Methods

Qualitative research can be utilized to gain in-depth knowledge and understanding of certain topics in specific populations (Thomas, Nelson, & Silverman, 2015). This study used a qualitative approach to learn about the perceptions and practices of physical activity among Mexican descent mother-daughter dyads. Interviews allowed participants to bring forth detailed responses of their thoughts, experiences, and practices.

Research Design

This qualitative study used semi-structured interviews. The use of semi-structured interviews gives the researcher flexibility to explore certain remarks that may arise from the interviewees' responses. (Thomas et al., 2015).

Sampling Method

Purposive sampling is a sampling method where the researcher is able to study a specific group of individuals from which the researcher can learn the most (Thomas et al., 2015). According to Ptiney(SP) and Parker (2009), there are various subtypes of sampling within purposive sampling. Two of those subtypes, criterion sampling and snowball sampling, were used for this study. With criterion sampling, the researcher establishes a set of requirements individuals must meet in order to participate in the study (Parker & Pitney, 2009). Snowball sampling is a type of sampling where participants

recommend other individuals who meet the requirements. In this study, the researcher aimed to recruit young girls from 10-12 years of age with mothers of Mexican descent.

Participant Recruitment

Prior to recruiting participants, the project was approved by the Institutional Review Board (IRB) at San Francisco State University. After IRB approval was obtained, the researcher did outreach in various community organizations of the Bay Area that serve the Latino community to recruit participants. Jamestown Community Center, located in San Francisco, was responsive to the study and invited the researcher to recruit participants from one of their girls soccer teams. The researcher attended one of the girls soccer games to hand out flyers and inform mothers about the study. Mothers who were interested in participating exchanged contact information with the researcher. The researcher then followed up with the mothers and proceeded to schedule interviews. Four mother-daughter pairs were recruited from the Jamestown Community Center soccer team, and six pairs were recruited through snowball sampling. In total, 10 mother-daughter dyad pairs were recruited from the Bay Area.

Interview Setting

All interviews were scheduled and conducted in locations convenient for the interviewees. The participants recruited from Jamestown community Center's soccer team were interviewed outdoors during scheduled practices of the soccer team. All other participants were interviewed indoors at various coffee shops of their choosing.

Interview Guide

The instruments utilized for this research were semi-structured interview guides that were developed to obtain information from the mother or daughter specific to the research question, while still allowing some flexibility to explore some responses in depth. The questions of the interview guides were drawn from two interview guides created by a member of the thesis committee with extensive knowledge and experience with qualitative research and interviews. The previous interview guides were generated and piloted to research the perceptions and practices of physical activity among Latina girls and their primary female caregiver. For the purposes of this study, a few additional questions specific to culture were added.

The interview guide used for the daughters was slightly different from the interview guide used for the mothers, however, they both centered around perceptions, experiences, and practices of physical activity (see appendix 1 and 2 for interview guides). For example, questions that centered around practices of physical activity included: “Are you physically active? Daughter: If you could choose any physical activity, what would it be? Mother: Is your daughter physically active? What kinds of physical activity do you want her to do?” Some questions that focused on perceptions included: “When you see girls engaging in physical activity, what do you think about it? What do you think other people think about it? Do you think girls should be physical activity?” Additionally, questions regarding past physical activity experiences included: “Mother: When you were younger were you allowed to play sports?” Questions regarding

culture included: “Do you think being Mexican has an influence on the way you think of physical activity? Do you think Mexican culture and American culture are different when it comes to women/girls participating in physical activity?” Both interview guides were also translated from English to Spanish by the researcher.

Data Collection

Prior to starting interviews, the researcher asked the participants if they preferred to do the interview in English or Spanish. For whichever language was chosen, the participants received consent, assent, and permission forms in that language (see appendix 3, 4, and 5 for forms). The researcher gave the adult participants consent forms for their own interviews, permission forms to allow their daughter to participate, and an opportunity to ask any questions. The daughters filled out an assent form to participate and were also given an opportunity to ask any questions. All participants were given a copy of the forms they signed for their own records.

Once consent forms, assent forms, and permission forms were filled out, the researcher assigned each participant a code and pseudonym to maintain confidentiality. The researcher then proceeded to interview the participants using the semi-structured interview guide. All participants were interviewed individually by the same researcher. Due to the nature of the semi-structured interviews, not all questions were asked in the same order. The researcher tried to make the interview as conversational and free-flowing

as possible. The interviews ranged from 15-35 minutes and were audio recorded to preserve the data for analysis.

Data Analysis

A total of 20 interviews resulted in a substantial amount of information. The method used to analyze the data was through thematic analysis. Thematic analysis is a process for determining, examining, and describing patterns, such as themes, within the provided data (Braun and Clarke, 2006; McGannon et al., 2014). The researcher followed the six phases as explained by Braun and Clarke, (2006).

The purpose of the first phase is to allow the researcher to become familiar with the data. In this phase, the researcher transcribed the interviews verbatim in the language they were conducted, either English or Spanish. The interviews that were conducted in Spanish were then translated to English by the researcher. In order to become familiar with the data, interview transcripts were read and re-read by the researcher and a secondary researcher. Researchers also noted initial thoughts as they read the transcripts.

The goal of the second phase was for researchers to come up with initial codes. Researchers went through the transcripts and coded interesting characteristics observed. The general codes across the mother interviews were noted by both researchers individually. The same step was done for the daughter interviews. The aim of the third phase was to search for themes. To accomplish this, researchers sorted the various codes into possible themes for the mother transcripts and daughter transcripts separately.

In the fourth phase, researchers reviewed the themes and subthemes to make sure the themes corresponded to the general codes extracted and to the data set as a whole. From this analysis, the primary researcher created a thematic map. The purpose of the fifth phase was for researchers to name and clearly define themes. This was accomplished from continuous analysis to polish the distinct features of each theme, and the overall picture the analysis illustrates.

Lastly, in the sixth phase, the primary researcher went back into the transcripts to obtain meaningful examples of the themes and subthemes. Additionally, in this final phase, the researcher compared the findings of the study to the existing literature to support or highlight new findings.

Researcher Role

As the primary researcher, I understand the possibility of issues arising from personal bias. Therefore, I used three distinct strategies to assure validity and account for bias. I will explain how acknowledging possible bias, having interview method standards, and collaborating with a secondary researcher diminishes potential issues from bias.

Strategy 1. Acknowledging Bias

My parents immigrated from Mexico to the U.S. when they were teenagers. They had my siblings and I about ten years after living in the U.S. For the most part, I was raised in a culturally Mexican traditional household. Which means, Spanish was my first language, I was brought up in a Catholic household, and I was taught to take pride of my

Mexican heritage. I was 12 years old when I started getting involved in sports, and I have been physically active ever since. I am aware that my cultural background and experiences in sports ultimately shaped my identity and how I perceive women in sport. Therefore, I made an effort to avoid expressing my perceptions while conducting the interviews. For example, growing up, my mother encouraged me to play sports even though her mother, my grandmother, was not fond of women being physically active. I have had amazing experiences playing sports and have a strong opinion with respect to women breaking out of the “housewife-in-training” idea and being physically active. I strongly attempted to make sure that I kept my ideas to myself so that I did not give too much information on where I stand on those topics. I did not want the participants to give me responses they thought were favorable; however, I also acknowledge that it is likely that some bias entered into the interview process. I wanted the participants to be as honest as possible because I wanted to learn from them, not influence their answers during the interview.

Strategy 2. Interview Method Standards

There were certain steps I carried out to ensure that I could collect the best possible data. First, I made sure to state the confidentiality of the interviews to all participants, so they felt comfortable being honest with their responses. Second, I explained that there were no right or wrong answers, and that I simply wanted to learn about their thoughts and perceptions in regard to physical activity and sports. That was also done to decrease the possibility of participants trying to give what they thought were

favorable responses. While conducting the interviews, I tried to be as open-minded as possible. That was essential so my opinions and perceptions regarding women in sport did not arise and alter the participants' responses. I was attentive, listened closely, and probed thoughtfully to clarify and expand on participants' responses.

Additional components were key during the interviews to assure the being data collected was reliable. Every participant received the same information on the interview process, directions, and introduction. I attempted to ask all participants the same questions in the same or similar manner and avoided suggesting answers to the questions asked. I attentively listened, acknowledged the participants' responses, and abstained from disagreeing or agreeing with them. I tried my best to remain neutral during the interviews. The consistency throughout every interview was vital to assure all participants received the same quality interview, and that my actions would not affect a single interview.

Strategy 3. Secondary Researcher

In order to assure the validity of the data interpretation, I had a secondary researcher look over all interview transcripts. The secondary researcher completed her Master's Degree in the Department of Kinesiology at San Francisco State University in 2017. Her coursework focused on physical activity promotion, exercise physiology, and research methods. The secondary researcher was invited to be a part of this research

because of her background in academia, kinesiology coursework completed, and knowledge of and experience with qualitative research.

The secondary researcher received information on the study background, methodology, and data analysis process. I shared all of the translated interview transcripts with the secondary researcher so that she could independently analyze all transcripts using the same process I utilized to analyze the data. The secondary researcher was instructed to independently analyze the data so that she could generate her own codes, themes, and subthemes. Once she completed her data analysis, we compared the themes and subthemes that emerged from the data to discuss any similarities or differences in findings. We discussed the findings and came to a consensus on establishing the themes and subthemes that emerged from the data. I acknowledge the importance of having another qualified researcher review and analyze the data to ensure this study's findings are reliable. Intra-observer agreement was determined to be 0.87.

Results

General Overview of Participants

All participants are residents of the Greater Bay Area, including San Francisco, San Jose, and Gilroy. All participants were given pseudonyms to maintain confidentiality.

Table 1: Mothers' Demographics

Mother-Daughter Dyad Pair	Participant	Age	Born	# of Years living in the US	Level of Education
1	Ana	35	Mexico	15	Some college or associate's degree
2	Rosa	30	Mexico	13	High school diploma
3	Sandra	44	United States	Entire life	Some college or associate's degree
4	Catrina	42	Mexico	23	Less than high school diploma
5	Marissa	32	Mexico	15	Less than high school diploma
6	Melissa	50	Mexico	40	High school diploma
7	Alicia	41	United States	Entire life	High school diploma
8	Trini	39	Mexico	23	Less than high school diploma
9	Emma	36	Mexico	18	Less than high school diploma
10	Jessica	54	United States	Entire life	Graduate or professional degree

Table 2: Daughters' Demographics

Mother-Daughter Dyad Pair	Participant	Age	Grade	Ethnicity
1	Rebecca	12	7th	Mexican
2	Sara	10	5th	Mexican
3	Betty	11	5th	Mexican
4	Olivia	11	6th	Mexican
5	Angelina	11	6th	Mexican + Guatemalan
6	Ariel	12	6th	Mexican
7	Valentina	12	7th	Mexican
8	Karina	12	6th	Mexican
9	Alexa	12	7th	Mexican
10	Yesenia	12	6th	Mexican + Ecuadorian

Themes

In this section, the researcher will first explain how physical activity was defined. Then, the themes that emerged for the mothers, themes for the daughters, and overlapping themes between mothers and daughters will be presented separately (see Table 3, Table

4, and Table 5). The themes that emerged from the mothers' interviews were: (1) cultural influences on physical activity and (2) perceived benefit of physical activity and sports for daughters. The themes that emerged from the daughters' interviews were: (1) social support, (2) perceived benefits of physical activity and sports, and (3) perceived barriers to physical activity. Lastly, the themes that emerged from both the mothers' and daughters' interviews were: (1) physical activity participation as a family and (2) perceived benefits of physical activity and sports. Quotes pertaining to each of the themes will be provided.

Defining Physical Activity

Physical Activity is “any bodily movement produced by skeletal muscles that results in energy expenditure” (Casperson, Powell, & Christenson, 1985). Sports, household chores or activities, and even some occupations incorporate physical activity. Exercise is a structured and goal-oriented type of physical activity (Casperson et al., 1985). At the beginning of every interview, the researcher asked the participants what came to mind when they heard the words physical activity. The majority of participants defined physical activity as exercise, movement, playing sports, and physical education. A few of the participants defined physical activity as health, happiness, relaxation, and interaction. The researcher acknowledged their responses and proceeded to explain that for the purpose of the interview, physical activity was any type of structured movement activity such as sports, running, walking, dance, or going to the gym. All participants agreed, and the researcher continued with the interview.

Table 3: Themes from Mothers

THEME	SUB THEME
Cultural Influences on Physical Activity	Familism
	Traditional Gender Roles
	Sports and Activities Encouraged
Perceived Benefits of Physical Activity and Sports for Daughters	Educational Opportunities

Cultural influence on physical activity

There were three sub-themes that emerged from cultural influence on physical activity among mothers: (1) familism, (2) traditional gender roles, and (3) sports and activities encouraged.

When mothers were asked “Are you physically active?” a majority said they were not physically active due to lack of time and having to put their family’s needs first.

Sandra: "It's hard. I have three kids, so I pretty much work around my kids' schedule and try to find activities for them versus for me. Um, and then I find that when I have free time I catch myself doing housework, things for my kids, so I just feel like I don't really have that time to dedicate to myself. So, I, I, I think I put myself at last."

Catrina: "I don't do an activity because my activity is since I have three children... and I have always tried to keep them occupied. I have always seen to keep them busy in them not me..."

As indicated by the statements above, some mothers have difficulty finding time to participate in physical activity. Most of the time their day is structured around their kid's extracurricular activities, leaving them with no time for themselves.

All participants were asked if they thought their Mexican culture influences their perceptions of physical activity. Participants expressed that their Mexican culture influenced their physical activity experiences because either (1) they were not allowed to participate in sports because of traditional gender roles, or (2) they participated in sports and activities that were popular in the Mexican community.

Some participants grew up in families where traditional gender roles were very prominent. Those participants were not allowed to play sports or engage in physical activity because it was not ladylike or thought to be beneficial. Typically, traditional gender roles encourage women to learn how to cook, clean, and act proper, while

discouraging outside social activities such as physical activity. One participant who was not allowed to do any sports expressed that her parents did not think women should be in sports.

Melissa: "...back in the days parents are... Mexican parents then didn't believe that women should be in sports. They may be thought that women should be at home cleaning and cooking and that being in sports wasn't something that we girls, should be doing."

Another participant who was not allowed to play, but did so in secret, elaborated on the differences between what her brothers were allowed to do and what she was allowed to do.

Trini: "...men have more freedom because they are men and we are not because we were women. They wouldn't even let us ride bicycles, but it was ok for men to be on bicycles. 'Bicycles are for men women cannot ride bicycles, a woman cannot exercise' and because riding a bicycle was a form of exercise they did not like it... because we were women and as always they'd say 'woman is woman and man is man'"

While cultural influence was evident in participants' childhood experiences in physical activity, not all participants grew up in families that adhered to traditional gender roles. In some cases, cultural influence was manifested through the sports or activities encouraged. For example, one participant's childhood experience in sport was

very positive because she played soccer in a Mexican town that was supportive of the sport.

Rosa: "...the people loved having a soccer team. There were always teams of young children, of older girls. There were always three or four teams of different ages, there has always been even up to this date. The sport in my town has always been very important, especially soccer. They are all very fond of soccer, and there is always a soccer team from small children to big ones."

Another participant explained that soccer is very popular amongst Mexicans.

Sandra: "Yes. I mean Mexicans are big on soccer. It keeps you united. I think Mexicans are very united and just the culture itself, it's just different."

Perceived benefit of physical activity and sports for daughters

All participants were asked what benefits they thought came from physical activity and sports. A sub-theme that emerged from the perceived benefits of physical activity and sports was educational opportunities for their daughters.

Catrina: "Yes, many benefits. It helps for their High School, it makes it more possible to enter the High School of their choice, the opportunities."

As indicated in the statement above, this mother thought that allowing her daughter to participate in physical activity could potentially lead to having more choices in her educational options.

Table 4: Themes from Daughters

THEME	SUB THEME
Social Support	
Perceived Benefits of Physical Activity and Sports	Enjoyment from Learning New Skills
	Energy from Activity
Perceived Barriers to Physical Activity	Risk of Injury
	Discouragement from Boys

Social support

When participants were asked, “Does anyone encourage you to be active?” the majority of participants’ responses expressed they received encouragement from their

family, friends, and school coaches. Most encouragement came from family members. As one participant explains,

Angelina: "They (her parents) usually say it's healthy for me and stuff like that. And they are like they motivate me by telling me good stuff before games and stuff."

Many participants also highlighted their dad as someone who encourages to be active.

Sara: "My dad. He helps me play in the games he yells at me to tell me what to do and I say, 'yes,' and I do it. And sometimes I make goals. He inspired me."

Other participants mentioned their siblings offered words of encouragement.

Ariel: "My sister Ana, she says that it would be better. Like if I joined like a dance or like a sport like she said to join any sport."

Besides family, friends and school coaches were recognized as sources of encouragement.

Sara: "Yes, she (her friend) encouraged me to play basketball also my coach because Lucy saw that I wasn't doing anything, so she told my coach to tell me to play, and so I played baseball with her."

Perceived benefits of physical activity and sports

All participants expressed that physical activity and sports had various benefits. The sub-themes that emerged from the participants' interviews were: (1) enjoyment from learning new skills and (2) energy from activity.

When participants were asked, "Why do you like being active and playing sports?" Participants stated they enjoyed learning new skills for their sports. One participant mentioned how she enjoyed learning and training with her soccer coach.

Sara: "I like how Ari (her coach) teaches us, and also how they train us, how they put us to run, and then ... like a prize for us is a scrimmage game"

Olivia: "Yeah I like it (playing defense in soccer) a lot. I like it when I learn how to play not as bad, and I played offense and I'm not really good at it. But in defense I like it a lot."

As indicated by the participants, acquiring new skills and training makes participating enjoyable.

Participants mentioned they are able to release and gain energy from participating in physical activity. As the following participants explain:

Olivia: "Well a way to get more energy and if you're sleepy and you want to get up physical activity can help you if you want to get more energy..."

Ariel: "I'll run around like the blacktop, to get warmer and then have more energy."

Another participant states she enjoys the feeling of releasing her energy when she is physically active.

Rebecca: "I like that like we get to like get our energy out when I play."

Perceived Barriers to Physical Activity

Participants perceived the risk of injury to be a barrier to engaging in physical activity. One participant stated that she was fearful of getting injured. She explained:

Valentina: "What I don't like that I get scared that someone is going to kick me, so I don't really like to play it cuz it hurts to get kicked. It's a little dangerous..."

Another participant expressed that she thought her mother might not allow her to play because she could get hurt. She stated:

Ariel: "I think that she (her mother) thinks that there might be fun, but then she might think that they sometimes are dangerous or something... Sometimes like sports do include like getting hurt and stuff like that."

In addition to the risk of injury, discouragement from other boys was perceived as a barrier to physical activity. One participant stated she was teased for playing with boys, so she decided not to play with them anymore. She explains:

Sara: “I always end up being the only girl in the game. Then the boys made fun of me because I played soccer and then I decided not to play with them because I just didn’t want to be there because they were making fun of me.”

Another participant mentioned she does not play soccer with her older brother because he had been telling negative comments about her ability to play. She stated:

Angelina: “Not recently because he's (brother) older than me and he's always like you're not that good and stuff.”

Table 5: Themes from Mothers and Daughters

THEME	SUB THEME
Perceived Benefits of Physical Activity and Sports	Health and Wellbeing
	Social Interaction
Physical Activity Participation as a Family	

Perceived Benefits of Physical Activity and Sports

All mothers and daughters interviewed shared a common perception that physical activity resulted in favorable outcomes in regard to health and wellbeing. One of the mothers was very fond of physical activity and explained what she believed the benefits were.

Ana: "I love physical activity it benefits your body more than anything else mentally and physically. I feel that if you are in depression or things like that or stressed out physical activity helps you so much."

She felt physical activity had both mental and physical benefits. Another participant thought physical activity was mentally and physically beneficial as well.

Catrina: "It helps them mentally as well and it also helps them relax from all the studying. Sport activities help in many healthy ways. If they have asthma, that helps them too. And if you don't have them do sports now, they won't want to do them when they're older. It's better if you have them do it at a young age."

Aside from the mental and physical benefits, she also believed getting her kids involved in sport at a young age was important, so they continue living an active lifestyle when they are older.

Marissa: "It's good for their health. Exercise also does the body good so that one does not get sick, or one does not get fat."

A mother also mentioned she thought exercise was beneficial for her children's health in preventing illnesses and weight gain.

Daughters also mentioned physical activity and sport participation leads to health benefits.

Valentina: "Because you're exercising and when you're exercising it's good for your heart and for your strength and everything. Like when you go to the gym your strength gets better and when you run is good for your heart."

This participant explained that strength and a healthy heart can be obtained through exercising.

The second benefit that emerged from the mothers' and daughters' interviews was the importance of social interaction through physical activity and sports. Physical activity was thought to be a positive way to decrease the use of technology and electronics.

Sandra: "Um, it (physical activity/sports) keeps you away from technology. It lets you interact with others to actually know other people versus staying home, watching TV, eating. Just doing the usual stuff that kids nowadays are doing."

In addition to decreasing technology use and sedentary habits, this participant thought engaging in sports led to meeting and interacting with people. Another participant expressed she thought physical activity and sports were a great way to meet people who come from different backgrounds for example,

Trini: “Well for one it’s good for your health, another because you get to meet more people, you get to interact with more people from other races, and you learn about their traditions, and also as counseling. It helps you because you start socializing and talking and it's kind of like a therapy. And like arranging get togethers or going to run, exercising. I imagine that's healthy for you because you're more connected with people, you're not that isolated... I imagine it’s nice getting involved in something.”

As indicated above, she thought socialization from sports and physical activity was therapeutic in the sense that building relationships helped people feel connected.

Participants also thought physical activity and sports helped their kids socialize with the right group of people and away from trouble.

Melissa: “It's really good that we let our kids like I said, get involved in anything they want. Any kind of sports. So, more sport they do, the more busy they are to stay away from trouble, stay away from gangs and stuff.”

Mothers believed physical activity and sports could provide their kids with a safe environment for positive social interactions.

Similarly, daughters expressed that socializing, meeting, and interacting with new people was a benefit from participating in physical activity and sports.

Betty: “Cuz it's fun you hang out with people and you are sometimes you’re funny with others and it's really nice seeing that.”

Olivia: “I like working together with teammates as well, but sometimes I also need to learn a little bit more to work with others. I meet a lot of new people in soccer.”

Physical Activity Participation as a Family

The final theme that emerged from all of the participants' interviews was the idea of engaging in physical activity participation as a family. Participants were asked if they would be interested in playing on a team or engaging in physical activity class with their mothers or daughters. All mothers and daughters shared an interest in participating in physical activity or sport together. Both mothers and daughters thought it would be a fun, motivating, and exciting way to bond with one another. The following examples from two mothers show their interest in this:

Trini: “Yeah, I’d like to get involved so that my children see and get motivated... they might say, ‘Oh she likes that, then I’ll also follow.’ Instead of saying, ‘Well my parents don’t like it... they don’t do it, so why should I?’”

Ana: “Yeah I think it would be nice there would be more ... we would be more united and have more bonding that is very important for parents with their children and more at the age of adolescents”

Similarly, daughters stated:

Alexa: “Because it can be a good experience with the whole family.”

Valentina: “Yeah like a family team. Like either soccer or baseball one of those, or softball one of those cuz it'd be kind of cool.”

The statements above show the daughters' perceptions toward participating in physical activity as a family. They explained they thought it would be a fun way to engage with their families.

In this section, the researcher defined how physical activity was used in the interviews prior to presenting the themes. The themes that emerged from the mothers' interviews were: (1) cultural influences on physical activity, and (2) perceived benefit of physical activity and sports for their daughters. The sub-themes that emerged from cultural influences on physical activity were: familism, traditional gender roles, and sports and activities encouraged. The sub-themes from the perceived benefit of physical activity for their daughters were: educational opportunities.

Themes that emerged from the daughters' interviews were: (1) social support, (2) perceived benefits of physical activity and sports, and (3) perceived barriers to physical activity. The perceived benefits of physical activity and sports had subthemes which were: enjoyment from learning new skills, and energy from activity. Subthemes from perceived barriers to physical activity were: risk of injury, and discouragement from boys. Lastly, themes that emerged from both the mothers' and daughters' interviews were: (1) perceived benefits of physical activity and sports and (2) physical activity as a family. The subthemes from perceived benefits of physical activity and sports were:

health and wellbeing, and social interaction. Quotes pertaining to each of the themes were presented.

Mother-daughter Dyad Profiles

The researcher will provide mother-daughter dyad profiles to introduce the participants and provide a general review of the interview. Additionally, the profiles present insight for interpreting the participants' perceptions and practices of physical activity during their childhood, present day, and future. The profiles also showcase the influence of the mothers' perceptions and practices of physical activity on their daughters' perceptions and practices of physical activity. It is important to know this information to better comprehend the data and what it means to the participants.

Ana and Rebecca:

Ana was born in Mexico and has lived in the US for 15 years. She and her daughter Rebecca currently live in San Francisco. Ana expressed a positive outlook on physical activity because of the mental and physical benefits, and the fact that it is a good way to keep kids away from trouble. Ana explained that she tries to be as active as possible and uses physical activity participation as a form of transportation (i.e. walking). Aside from that, she does not engage in other forms of physical activity due to a lack of time and financial resources.

Ana mentioned that during her childhood she and her siblings were very active, mostly engaging in free play at the park or around their neighborhood. Ana stated that occasionally she engages in physical activity with her mother. She recalled her mother being active since she was a child. Ana recognized that her mother got her in the mindset of taking care of her health through activity. Ana's perceptions of physical activity were positive not only for herself but for all women. She expressed feeling joy and inspiration when seeing other girls or women being active.

Ana explained that she has tried to encourage her daughter to engage in physical activities by signing her up in activities, such as swimming. However, she has experienced some difficulties in continuing to take her daughter to her activities because she had been a single mother in the past, and just recently remarried. As a single mother, she felt as though she did not have additional support from a partner who could assist in taking her daughter to her activities.

Rebecca is 12 years old and is in seventh grade. In the past, she had been involved in swimming and currently gets involved in PE at school. She stated that she did not feel as though anyone encouraged or discouraged her to be active. Rebecca is not part of an outside team or sport, so aside from engaging in PE at school, she does not engage in other types of physical activity. She has siblings, but they live with her father in San Diego. She does not interact with them regularly, so it is as if she is an only child living with her mother and step-father.

Rebecca mentioned that she would like to get involved in basketball or volleyball and that she thought her parents would support her. She expressed interest in those sports because she's had the opportunity to try them out and had fun doing so. Additionally, she acknowledged that engaging in physical activity has health benefits.

Ana and Rebecca shared similar views on the positive outcome from being physically active, as well as the idea that both genders should be allowed to participate in whatever sport or activity they choose. It appears as though Ana's perceptions of physical activity have also influenced her daughter's perceptions of physical activity. The only difference in opinion was on if or how culture played a role in their physical activity engagement. Rebecca did not think her culture influenced her physical activity participation, but Ana felt that because she was Latina she had less time, financial resources, and opportunities to be active.

Rosa and Sara

Rosa was born in Mexico and has lived in the US for 13 years. She and her family of four reside in San Francisco. Rosa associated physical activity with health and happiness. Rosa explained that she typically goes running at 6 am about four or five times a week. She also rides her bike for transportation to get to work.

Rosa stated that growing up she was very active. She danced Folklorico (traditional Mexican dance) for a few years and played soccer for a long time. Soccer was

her passion. She explained that her parents neither encouraged or discouraged her, but they allowed her to do anything she wanted. Her parents did not go watch her games or performances, but that did not bother her. She made it clear that her desire to play soccer and be active came from within.

Rosa encourages her daughter Sara to participate in soccer. She mentioned that even if in the future her daughter does not want to play soccer, she will encourage her to participate in another sport of her choosing. She recognizes that children follow the example of the parents which is why she and her husband also participate in physical activity. She also expressed that her Mexican culture has a heavy influence on the type of sports or activities she did, as well as the type of activities or sports her daughters engage in.

Sara is 10 years old and is in fifth grade. She is very active and involved in a variety of physical activities such as soccer, baseball, and football during school recess. She is a part of Jamestown's girl's soccer team. Sara had a positive view of sports and physical activity because she has fun and learns new skills. She was very passionate about soccer and said someday she would want to become a professional soccer player. Sara stated that both parents encourage her to play, and if she wanted to get involved in other sports they would support her. She also shared that her father inspired her to play soccer and that he encourages her a lot.

Sara mentioned that she encountered some negative responses from male classmates at school because she decided to play soccer with them. She said the boys teased her for being the only girl playing and told her she was not good at it. Despite the negative response from her male classmates, Sara did not intend to stop playing. She decided to stop playing with those classmates and plays with a few of her other friends instead. Sara stated that seeing other women or girls being active makes her feel proud of being a girl.

Both Rosa and Sara had similar views on the positive aspects of physical activity, as well as the idea that both genders should be allowed to participate in whatever sport or activity they choose. It seems evident that Rosa's perceptions and participation in physical activity have influenced her daughter's perceptions and participation in physical activity. The only difference in opinion was regarding how culture played a role in their physical activity engagement. Sara did not think her culture influenced her physical activity participation, but Rosa felt that her Mexican culture influenced the type of sports she used to participate and the type of sports she encourages her daughters to participate in.

Sandra and Betty

Sandra was born in the US and has lived in the US her entire life. She and her family of five reside in San Francisco. While she did express a positive view on physical

activity and the benefits of being active, she does not engage in PA on a regular basis. Sandra mentioned that she always puts her family's needs above herself, which often times means she does not have time or energy to be active.

As a child, Sandra recalls being active in volleyball, basketball, and soccer through her school. However, she and her siblings were not able to get involved in sports outside of school due to a lack of transportation resources. Sandra explains that her parents did not encourage or discourage her to be active, but the situation her family was in was discouraging. Specifically, because her father was the only person who drove, and he worked a lot. This made it difficult for her to try and participate in sports outside of school.

Sandra encourages her daughter Betty to get involved in sports because of the beneficial outcomes physical activity yields, such as good health, social interaction and decreasing the use of technology. Sandra stated that she would support her children in whatever sport they choose to participate in. Additionally, Sandra mentioned that she believes Mexican culture influences the type of sports individuals engage in. Specifically, soccer and how soccer unites people. Sandra also recognized that in Mexican culture traditional gender roles are very prominent and can affect a woman's ability to engage in physical activity.

Betty is 11 years old and is in the fifth grade. She has been involved in a variety of physical activities such as soccer, Folklorico dance, and basketball at school. She is

also a part of Jamestown's girl's soccer team. Betty shared similar views as her mother, on the positive characteristics of engaging in physical activity. She mentioned that both parents encourage and support her to be active, especially her father. Betty expressed she liked seeing other women or girls being active because a lot of girls do not play sports.

Sandra and Betty had similar perceptions on the benefits of participating in physical activity, as well as the idea that both genders should be allowed to participate in whatever sport or activity they choose. Sandra's perceptions of physical activity seem to have influenced her daughter's perceptions and practices of physical activity. The only difference in opinion was on if or how culture played a role in their physical activity engagement. Betty did not think her culture influenced her physical activity participation. However, Sandra expressed that Mexican culture may not be supportive of women participating in physical activity because of the traditional gender roles embedded in the culture. Additionally, Mexican culture is very united, and soccer is significant within that culture because it brings people together.

Catrina and Olivia

Catrina was born in Mexico and has lived in the US for 23 years. Catrina and her family of five reside in San Francisco. Catrina recognizes that physical activity is beneficial for individuals' mental and physical health and helps keep her kids out of trouble. Additionally, she believes encouraging her children to be involved in sports may

lead to more opportunities to get into better schools. Even though Catrina recognizes the benefits, she does not engage in PA on a regular basis. She puts her family's needs above her own, so a lot of the time she is out taking her kids to their own functions, practices, or games. Occasionally she tries to walk around or kick a soccer ball with one of her kids while she is at her other child's practice. In addition to lack of time, Catrina expresses that a lack of financial resources limits her ability to be active.

Catrina was not able to engage in sports or physical activity during her childhood because she came from a poor family where everyone had to work. When she saw other girls being active she remained hopeful that one day she would have the opportunities they had. Catrina stated that she is open to letting her children try any type of sport so that they could experience and decide for themselves if they like it or not.

Olivia is 11 years old and is in sixth grade. She has been involved in a variety of physical activities such as soccer, and basketball during school. She's also a part of Jamestown's girl's soccer team. Olivia stated that she liked being physically active because it helps her get energized, stay in shape, and socialize. Olivia said that her parents and brothers encourage her to be active. She also mentioned that if she chose to participate in a different sport her parents would support her.

Catrina and Olivia shared similar views that both genders should be allowed to participate in whatever sport or activity they choose. It seems as though Catrina's perceptions of physical activity have also influenced her daughter's perceptions and

practices of physical activity. The only difference in opinion was on if or how culture played a role in their physical activity engagement. Olivia did not think her culture influenced her choice of physical activity participation, but that her culture influenced the way her teammates played with each other. Specifically, her team played like a family. Catrina felt that because she was Latina she had less time, financial resources, and opportunities to be active.

Marissa and Angelina

Marissa was born in Mexico and has lived in the US for 15 years. Marissa and her family of five live in San Francisco. While Marissa stated that she liked participating in physical activity because of its stress relieving and health benefits, she currently does not engage in physical activity on a regular basis. She explained that taking care of her three-year-old and work leaves her with no time to participate in physical activity.

Marissa recalled that during her childhood she and her siblings were not allowed to participate in sports or physical activities. Her parents expected their children to help out around the house and do chores before allowing them to go out and play. Marissa felt as though she did not get to enjoy her childhood and does not want her children to experience the same thing. She said she encourages her children to participate in any sport of their choosing. She explained that she prefers they be active instead of spending time on electronics.

Angelina is 11 years old and is in sixth grade. She has participated in a variety of physical activities such as soccer, flag football, and basketball during school. She is also a part of Jamestown's girl's soccer team. Angelina said she likes to participate in those sports because she has fun and gets to contribute with her teammates. She mentioned that her father is usually the one who encourages her to be active, and her mom occasionally encourages her. Angelina expressed that her parents would support her if she wanted to try a different sport.

It looks as though Marissa's perceptions of physical activity have influenced her daughter's perceptions of physical activity. Marissa and Angelina shared similar views in that both genders should be allowed to participate in whatever sport or activity they choose, but they had different outlooks on current opportunities. Marissa stated that in the past girls were not allowed to participate in certain sports, but that now girls participating in all sports is more accepted. However, Angelina pointed out that boys tend to have more opportunities to participate in sports than girls. Another difference noted was on how culture played a role in their physical activity engagement. Marissa did not think her culture influenced her physical activity participation, but Angelina felt that her Mexican culture encouraged participation in soccer.

Melissa and Ariel

Melissa was born in Mexico and has lived in the US for 40 years. Melissa and her family of six currently reside in San Jose. She stated that she likes to go hiking with her family on the weekends because it is fun. She also recognized that physical activity has mental and physical health benefits, and keeps kids busy in a healthy way. This is one of the reasons why she encourages her kids to be active. The other reason is that her parents did not allow her to participate in sports, so she wants her kids to have a different experience.

Melissa recalled that her parents were strict and against women participating in physical activities. They believed in traditional gender roles and thought girls should be learning how to be a housewife, not out playing sports. She knew her parents' views towards women in sport, so she never asked for permission to participate in any sport or physical activity.

Ariel is 12 years old and is in sixth grade. She likes to participate in PE but is not a part of any outside teams or sports. She expressed a big interest in joining an outside soccer team but said she did not think her mother would let her join because she might get hurt. Ariel explained that she likes being active because she has fun, gets energized, gains strength, and has health benefits. Ariel says the main person who encourages her to be active is her oldest sister.

Some of Melissa's perceptions of physical activity seemed to have influenced her daughter's perceptions of physical activity. Melissa and Ariel shared similar views on the

positive outcomes of engaging in physical activity. They also stated they believed both genders should be allowed to participate in whatever sport or activity they choose. There was a difference in opinion was on how culture played a role in their physical activity engagement. Ariel did not think her culture influenced her physical activity participation. However, Melissa felt that the traditional gender roles embedded in Mexican culture influence women's participation in physical activity. Melissa did express that this seemed to be changing, and the traditional gender roles in Mexican culture are becoming less significant.

Lastly, it is worth mentioning that there appeared to be a disconnect or misunderstanding between this mother-daughter pair. Melissa expressed that she encourages her children to be active and tells them to do whatever sport or physical activity they like. Yet, Ariel felt that her mother would not let her participate in soccer because she might get hurt.

Alicia and Valentina

Alicia was born in the US and has lived here her entire life. She and her daughter live in San Jose. Alicia stated that she is currently not physically active on a regular basis. However, she recognizes that physical activity helps people socialize and build relationships, is fun, and has health benefits. She explained that she tries her best to

encourage her daughter to join a sport because knows how much fun playing sports is, but that her daughter does not follow through with trying out a sport.

During her childhood, Alicia was very active and played soccer and baseball. Her mother did not allow her to play sports because she believed in traditional gender roles. Since Alicia's mother did not allow her to play sports, Alicia played behind her mother's back. Alicia's father had a different perspective, and he encouraged her to play sports. He practiced with her, took her to her practices and games, and took her to the laundromat so she could wash her gear without her mom knowing. Eventually her mother caught her and at first, it was a big deal, but it blew over and her mother came to accept it. Alicia stated that in more recent years her mother's mentality changed and she regularly engages in physical activity.

Valentina is 12 years old and is in seventh grade. She did not express an interest in participating in PE, especially when they have their weekly mile runs. She is also not a part of any outside teams or sports. Valentina expressed somewhat of an interest in joining soccer, but she said she feared getting injured. Valentina also mentioned that she did not think her mother would want her to play if her grades dropped. Additionally, Valentina stated her mother would get upset if she gets injured. She also said no one encourages or discourages her to engage in physical activity.

Valentina explained that her mother does not like to exercise because she is always tired or busy, but that her grandmother is physically active. Occasionally,

Valentina goes with her grandmother to the gym. Valentina expressed that her grandmother exercises almost daily and has a healthy diet.

Alicia's perceptions of physical activity do not appear to have influenced her daughter's perceptions of physical activity. Valentina's perceptions and practices seem to be influenced by Alicia's current practices of physical activity. Alicia and Valentina shared similar views that both genders should be allowed to participate in whatever sport or activity they choose. There was a difference in opinion as to how culture played a role in their physical activity engagement. Valentina did not think her culture influenced her physical activity participation. In contrast, Alicia expressed that traditional gender roles in Mexican culture limit a woman's ability to engage in physical activity. Alicia mentioned that this seemed to be changing among the newer generation because PE in schools teaches people about the importance of physical activity for health.

Lastly, it is important to mention that there seemed to be a misunderstanding or disconnect between this mother-daughter pair. Alicia expressed that she encourages her daughter to be active and wants her to get involved in sports or physical activity. However, Valentina thought that her mother would not let her participate in soccer because of injury risks.

Trini and Karina

Trini was born in Mexico and has lived in the US for 23 years. Trini and her family of six live in San Jose. Even though she does not engage in physical activity on a regular basis, she recognized that engaging in physical activity has social interaction and health benefits. She does not participate in physical activity because of lack of time due to work and having to put her family's needs above her own. She stated that she encourages her children to get involved in physical activities of their choosing.

Growing up, Trini was not encouraged to play sports or do any type of physical activities because her parents believed in traditional gender roles. However, that did not stop her. She would play volleyball, basketball and ran track behind her parents back. She would tell her father that she was only going to go watch the games, but she would actually join and play. If she saw her father coming she would get out because she knew she would get in trouble, especially because the team she played on was male and female mixed. Trini explained that eventually the sports she played in became subjects in school, so she told her parents that she played volleyball and basketball. Her parents asked if there were anything else she could do instead of those activities and she said no, so she continued to play. After that, Trini recalled that her father saw her play and noticed she was good. From then on he did not try to stop her from playing, and occasionally her family would go watch her play.

Karina is 12 years old and is in sixth grade. She participates in PE and likes to dance Folklorico. She has been doing Folklorico for three years and explained that she likes performing rather than playing in front of people. Despite that, she expressed an interest in joining soccer and basketball. She said she thinks her parents would allow her to join those sports. Her siblings are also active, and she said she felt proud of her sisters when watching them play.

Trini's perceptions of physical activity look as though they have influenced her daughter's perceptions and practices of physical activity. Trini and Karina shared similar perceptions that both genders are capable to take part in any sport or physical activity. The main difference was on how culture played a role in their physical activity engagement. Karina did not think her culture influenced her choice of physical activity participation. In contrast, Catrina felt that her culture limits women's freedom and opportunities to thrive.

Emma and Alexa

Emma was born in Mexico and has lived in the US for 18 years. Emma and her family of six live in Gilroy. Emma stated that she walks to the park or around the neighborhood with her family but says they do not go often. She said that she enjoys the fresh air and relaxing qualities of her walks. However, lack of time and discipline to set time for walking inhibits her from doing this physical activity on a regular basis. Emma

stated that when she was younger, her parents allowed her and her siblings to participate in sports. She recalled having the freedom to choose whatever sport she wanted to do.

She stated that she encourages all her children to get involved in sports, but that her daughter Alexa does not want to do anything. She said she encourages them to be active because when her oldest daughter was little she put her on a soccer team, but she stopped taking her. Emma's oldest daughter confided to her that she wished she would have been more supportive in taking her, so she could have more experience in the game. Emma recognized that at the time she made the mistake of thinking sports were not important.

Alexa is 12 years old and is in seventh grade. She participates in PE but is not a part of any outside teams or sports. She expressed an interest in joining soccer and thinks her parents would support her choice. She believes that if she were to get involved she would learn and experience how to play, and gain strength. She mentioned that her siblings inspire her to get involved in sports because they participate in sports.

Emma's perceptions and practices of physical activity appear to influence Alexa's perceptions and practices of physical activity. Emma and Alexa shared similar beliefs in that both genders should be able to choose and participate in whatever sport or activity they want. It is worth noting that there seemed to be a miscommunication or disconnect between Emma and Alexa's interest in participating in sport. Emma stated she

tells Alexa to get involved in a sport but that she does not want to, yet Alexa showed an interest in joining soccer.

Jessica and Yesenia

Jessica was born in the US and has lived in the US her entire life. She and her family of six live in Gilroy. Jessica mentioned that she likes to go walking every other day for 30 minutes to an hour. Since she has been working less, she makes sure to set time aside has made it part of her weekly routine. She enjoys how relaxing her walks are and sometimes even feels guilty if she misses a day.

Jessica grew up in a traditional Mexican household where she was only allowed to attend school and go back home to do chores. She was not able to participate in sports or any sort of extracurricular activity. Jessica recalls the only type of physical activity she did was working in the fields during the summer time. She mentioned that she was the fifth out of 10 kids, and her parents did not encourage them to participate in sports because they could not afford it. Jessica said her parents were less strict with her younger siblings and they were allowed to participate in sports through school because it was free. Once Jessica moved away for college she got into aerobics because it was required for her to take an activity class. She ended up really enjoying it and continued to stay active even after she finished her education.

Jessica is very supportive of her kids being in sports. She mentioned that all of her kids started off playing soccer and were coached by her husband. She gives her kids the freedom to participate in whatever sport they want, as long as it is not too aggressive where they could get injured.

Yesenia is 12 years old and is in sixth grade. In the past, she has been involved in soccer and swimming, but currently, she is involved in hip-hop dance. She expressed an interest in playing volleyball and said her father will teach her how to play. Yesenia feels that her parents would encourage her to participate in any sport she chooses because they tell her they do not want her to be bored at home. Her parents also tell her exercise is good for her. She explained that her whole family is active and that they have all participated in soccer, even her parents.

Jessica's perceptions and practices of physical activity seem to have influenced her daughter's perceptions and practices of physical activity. Both Jessica and Yesenia believed that there is a difference in the type of activities males and females should participate in. Jessica explained that she would not encourage her daughters to participate in sports such as football or boxing. Additionally, Yesenia believed that gymnastics is for girls and the gym is for boys. Moreover, Yesenia did not think their culture influenced their physical activity participation. Jessica explained that she did not know if it was culture that made an impact on physical activity, but instead thought lack of education and financial resources impacted physical activity.

Aside from providing a brief summary of the interviews, the profiles are included as a way to interpret the interview data. The profiles offer insight and some rationale for why participants responded to questions the way they did. The results will be discussed and related to the literature in the following section.

Discussion/Conclusions

Summary of Themes

After careful analysis of the interview data, cultural influence was determined to be a prominent factor that affected mothers' perceptions and practices of physical activity. Specifically, familism, traditional gender roles, and types of sports encouraged were aspects of cultural influence.

A majority of mothers explained they were not currently active because their days were usually scheduled around their children's extracurricular activities. Structuring their days around their kids usually left them with no time for themselves to participate in physical activity. It was evident that the lack of time for themselves was due to familism. Familism is associated with centering the family's needs above one's own needs and is identified as a core component of Mexican culture (Cuéllar, Arnold, González 1995; Cupito, Stein, Gonzalez 2015; Niemann, Romero, Arredondo, & Rodriguez 1999; Segura & Pierce 1994). In this study, familism was a barrier to the mother's physical activity participation, but it was a facilitator to their daughter's physical activity participation. This finding is consistent with a study conducted by Gonzales and Keller (2004) that investigated the perceived barriers and facilitators for physical activity participation among older postmenopausal Mexican American women. The main barrier for those women to engage in physical activity included family responsibilities and obligations (Gonzales & Keller 2004).

Some mothers expressed they were not able to participate in physical activity or sports during their childhood because they were raised in a household that adhered to traditional gender roles. Those participants were not encouraged or allowed to participate in physical activity or sports because their parents did not believe women should be physically active. It was not considered "ladylike," beneficial, or acceptable to let their daughter out of the house for physical activity or sports. Traditional gender roles encourage women to act feminine, meaning acting proper and learning how to cook and clean. In addition, women have less freedom for social activities outside of the home than men (Raffaelli & Ontai, 2004). Therefore, traditional gender roles are not supportive of women being physically active. Traditional gender roles are also identified as a core component in Mexican culture (Cuéllar, Arnold, González 1995; Cupito, Stein, Gonzalez 2015; Niemann, Romero, Arredondo, & Rodriguez 1999). Even though traditional gender roles were a barrier to some mothers' physical activity and sport participation during their childhoods, it was not a barrier for their daughter's physical activity participation. Regardless of where mothers were born, they did not think their daughters should refrain from participating in sport or physical activity simply because they were girls. In fact, all mothers continuously encouraged their daughters to be active. This may be attributed to the number of years mothers have lived in the U.S, which on average was 21 years. It may be possible that these mothers have adopted the mainstream culture of the U.S. (Abraído-Lanza, Shelton, Martins, & Crookes, 2017). In the U.S., it is more socially acceptable for women to participate in sports and physical activities. This is consistent

with literature that shows an increase in physical activity levels among Mexican American individuals due to acculturation (Chrisman, Daniel, Chow, Wu, & Zhao, 2015).

Aside from familism and traditional gender roles, some mothers thought their culture influenced the type of sports they participated in during their childhood or currently encourage their daughters to participate in. Soccer was identified as a popular sport promoted, especially among mothers who were able to play it during their childhood. While not explicitly mentioned as popular sports or physical activities promoted, some participants' daughters were involved in Ballet de Folklorico (Folklorico) and Aztec dance. Folklorico and Aztec dance originated in Mexico and are considered are cultural traditions (Garner 2009; Ramirez 1989). Additionally, mothers' encouragement of Soccer, Folklorico, and Aztec dance provides new insight into the current literature, which does not specify sports or activities encouraged among Mexican origin adolescent girls.

Physical activity and sport participation were thought to bring forth favorable educational opportunities for daughters. This is most likely due to positive academic performance. This finding can be supported with previous literature. Nelson and Gordon-Larsen (2006) reported that students from ages 12-18 who engaged in more than five bouts of weekly moderate-to-vigorous physical activity or had high participation in school-based physical activities were more likely to earn higher grades. More recently, a review on the relationship between physical activity and academic performance among

children indicated a positive relationship between physical activity and academic performance (Singh, Uijtdewilligen, Twisk, Van Mechelen, & Chinapaw, 2012).

Data analysis from the daughters' interviews indicated social support from family was a primary facilitator for being physically active, followed by friend and coach support. These findings are supported by previous studies that found higher levels of physical activity participation among young girls, women, and minority groups when positive encouragement, support from family and friends, support from school peers, and the community was perceived (Duyn et al., 2007; Eyler et al. 1998; Hsu et al. 2011; Keller and Gonzales, 2008; Larsen et al., 2013; Marquez & McAuley, 2006; Vu et al., 2006)

Enjoyment due to learning new skills was perceived as a benefit of physical activity by the adolescent girls. Previous studies support this finding (Grieser et al., 2006; Standiford 2015; Whitehead & Biddle, 2008). Casey, Eime, Payne, and Harvey (2009) investigated factors that influence physical activity and sport among rural adolescent girls and reported intrinsic motivations, such as practicing and improving skills to participate in physical activity. They were also more likely to participate in sports or physical activity if they found the sport to be fun and it involved their friends (Casey, Eime, Payne, and Harvey, 2009)

Daughters reported feeling energized from physical activity participation as a positive aspect of physical activity. This is supported by previous studies (Grieser 2006;

Standiford 2015). Immigrants and refugees to Minnesota reported feeling energized after participating in exercise (Weiland et al., 2015). In a study conducted by Ferron, Narring, Cauderay, and Michaud (1999), 15-20-year-olds who participated in physical activity were more often energized and happy about their lives.

Risk of injury was a perceived barrier to being physically active among some daughters. Some daughters explained they were afraid of getting injured because of some previous experience. Greiser et al. (2006) reported fear of injury was commonly perceived as a negative aspect of physical activity among adolescent girls. Fear of injury was attributed to their own experiences or their friends' experiences (Greiser et al., 2006). Additionally, some daughters explained they did not think their mothers would let them participate in sport because they thought it could be dangerous. Daughters perceived their mothers' perception of risk of injury as a barrier to being physically active. It is important to note that mothers did not bring up risk of injury as a concern. This finding contributes to the current literature because adolescent Mexican descent girls' perceptions of their mothers' perceptions on the risk of injury have not been explored yet.

Some daughters described teasing from boys to be the main barrier to participating in physical activity, especially when they are the only girl participating in that group. Adolescent girls getting teased by boys while participating in physical activity is supported in the literature (Slater & Tiggemann, 2011; Slater & Tiggemann, 2010; Watson, Elliot, & Mehta 2015; Standiford, 2015; Bauer, Yang, & Austin, 2004). More specifically, Vu, Murrie, Gonzalez, and Jobe (2006) reported verbal discouragement,

from boys such as name calling, teasing, or taunting were perceived as the main barrier for adolescent girls' participation in physical activity. While these studies did include Latina adolescent girls, they did not specify if Latina girls faced teasing or discouragement from boys more frequently than girls of other ethnicities. In current literature it is not known for sure whether Latina adolescent girls are experiencing those negative behaviors due to their gender, their ethnicity, or an intersection of both.

Mothers and daughters perceived health and wellbeing as a benefit of physical activity. Specifically, mothers' perceived benefits of physical activity influenced their own and their daughters' perceptions and practices of physical activity. Positive health and wellbeing outcomes were reported as reasons why they engage in physical activities and encourage their daughters to participate. Physical activity was perceived to have physical and psychological benefits such as decreasing obesity, illnesses, stress, and depression. Literature supports that physical activity has numerous physical and mental health benefits (Janssen & LeBlanc 2010; Penedo & Dahn 2005; Warburton, Nicol, Bredin 2006; Eyler et al., 1998; Grieser et al., 2006; Marquez and McAuley, 2006; Eime, Young, Harvey, Charity & Payne 2013). Janssen and LeBlanc (2010) conducted a systematic review investigating the association between health and physical activity among youth. In this review, they determined the more physical activity youth engaged in elicited greater health benefits. Janssen and LeBlanc (2010) suggested 5-17-year-olds should engage in 60 minutes of moderate to vigorous physical activity daily to achieve health benefits.

Similar to the mothers' perceptions, the daughters' perceived health benefits as a positive outcome of physical activity. The current literature supports cognitive, psychological, and physical health benefits attributed to physical activity participation, especially when the recommended amounts of physical activity are met (Janssen & LeBlanc 2010; Penedo & Dahn 2005; Warburton, Nicol, Bredin 2006; Eyler et al., 1998; Grieser et al., 2006; Marquez and McAuley, 2006; Eime, Young, Harvey, Charity & Payne 2013).

Both mothers and daughters believed socializing was a benefit of physical activity and sport participation. In addition to physical and psychological health benefits, mothers believed physical activity and sport participation was necessary for their daughters to decrease the use of technology and socialize, build relationships, and meet people from diverse backgrounds. These findings can be supported by existing literature. Carlson, Fulton, Lee, Foley, Heitzler, and Huhman (2010) suggested that setting time limits for technological screen time and making physical activity opportunities available for 9-15-year-olds may result in a decrease of screen time. Wiersma and Fifer (2008) reported sports build a sense of belonging and friendships among teammates. Barber, Eccles, and Stone (2001) reported students who participated in sports experienced lower levels of social isolation. Additionally, mothers who want to expose their daughters to people from diverse backgrounds in a sport or physically active environment suggests new insight into the current literature, which does not center around ethnicity.

Mothers and daughters shared an interest in participating in mother-daughter physical activities or sports, and some even stated an interest in getting the whole family involved. Dunton et al. (2012) reported girls were likely to engage in similar physical activity or sedentary behaviors with their parents. Therefore, if parents spend less time being sedentary and more time engaging in physical activities with their daughters, parents and daughters may increase their physical activity levels (Dunton et al., 2012). Additionally, Thompson, Jago, Brockman, Cartwright, Page, and Fox, (2009) reported parents perceived family participation in physical activity as a valuable way to bond, communicate, become physically fit, and obtain health and psychological benefits.

Overall this study demonstrates mothers' perceptions and practices of physical activity influence their daughters' perception and practices. Regardless of the barriers mothers previously faced during their childhood such as traditional gender roles, or currently face such as lack of time attributed to familism, mothers continue to encourage their daughters to be physically active. This encouragement by mothers occurs mainly because of one of two reasons: (1) they were not able to participate in sports or physical activity during their childhood and they felt as though they missed out, so they want their daughters to have that experience; or (2) they were able to participate in sports or physical activity during their childhood and they had great experiences, so they want their daughters to have that experience as well. Additionally, the mothers' perceived benefits of physical activity are reasons for them to encourage their daughters to be physically active.

Limitations of Study and Future Research

A limitation of this study is that the 10 mother-daughter dyads from the bay area were interviewed, but the ideas expressed might not be representative of the ideas of the area or the subgroup as a whole. Future studies should include more participants from a broader area. The broader area may include other cities outside of the bay area. Also, because four out of the ten pairs were recruited from Jamestown Community Center's soccer team, participants from other sports teams should be recruited as well. Recruiting participants from other sports teams may provide information as to how they got interested in that particular sport, and it could further the understanding of cultural influences on different sports.

This study was focused on learning about the perceptions and practices of Mexican descent women and their adolescent daughters so aside from digging deeper into this subgroup, future studies may want to focus on other subgroups. Learning about different subgroups' perceptions and practices of physical activity could be compared to this study's findings and explore the similarities and differences between the two. For example, one subgroup to be studied should be individuals of Puerto Rican origin because they are the second largest Latino subpopulation. It would also be interesting to see how Latina women and adolescent girls from a U.S territory perceive and participate in physical activity or sports compared to women from a Latino country. Additionally, some participants of this study mentioned their fathers encouraged, supported, and

inspired them to be physically active. Therefore, future studies may consider exploring father-daughter relationships in regard to sport and physical activity promotion.

Implications

This study's findings can help further the understanding of the factors that influence Mexican descent adolescent girls' physical activity and sport participation. Culturally popular sports such as Soccer, Folklorico, and Aztec dance should be more accessible and promoted among Mexican descent girls. Perhaps creating interventions or events where mothers and daughters can equally participate in physical activity may increase activity levels amongst Mexican descent women and adolescent girls. Most of the mothers took their daughters to their practices and games and would watch them. If there were a coach or trainer that could get them physically active during that same time and at that same location, then the "lack of time attributed to familism" barrier could be eliminated for the mothers.

Furthermore, this study's findings present information on the barriers Mexican descent adolescent girls face such as discouragement and teasing from boys. This is a barrier a lot of adolescent girls encounter. Perhaps developing physical activity interventions that promote inclusive physical activity environments amongst boys and girls may help decrease discouraging behaviors from boys. This may lead to an increase of physical activity participation in girls.

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Appendices

Appendix 1. Interview Question Guide for Mothers

Title: Mujeres Activas: Sociocultural Influences on the Physical Activity of Adolescent Girls and their Mothers of Mexican Descent

Researcher's Name: Carolina Martinez

Department: Kinesiology

1. **When you think about PA, what comes to mind? (Distinguish different types of PA: dance, sport, exercise, etc.)**
 - a. What do you like about PA?
 - b. What do you dislike about PA?

2. **Are you physically active? Yes, go to 2a and 2b. No, go to 2c.**
 - a. IF Yes: What kinds? How long have you been doing each activity?
 - b. IF Yes: Why did you choose the activity?
 - c. IF No: Why not?

3. **Were you allowed to participate in PA when you were a young girl?**
 - a. IF Yes: What age did you start? And stop?
 - b. IF Yes: What activities did you do? How did you decide which activity to do?
 - c. IF No: Why not?

4. **What did your parent(s) tell you about PA? What did they think about PA?**

5. **Do you have any siblings? If yes follow up with:**
 - a. What did they tell you about PA?
 - b. What did they think about PA?

6. **Did anyone encourage or discourage you? Explain. (even if they were PA, someone might have tried to discourage them)**

7. **When you were growing up, did you know any girls who were physically**

active?

8. What did you think of girls who were PA?
9. How were physically active girls viewed by others?
10. Do you think girls should be physically active?
11. When you see girls engaging in PA, what do you think about it?
12. What kinds of activities should boys do? Girls do?
13. Is your daughter physically active?
 - a. IF Yes: What activities does she do? What kinds of PA do you want her to do? (list)
 - b. IF No: Why not?
 - c. IF No: If your daughter wanted to participate in PA, would you allow her to do it?
Why or why not? What kinds of PA would you want her to do? (list)
14. Do you think being physically active benefits your daughter in any way?
15. (If she's not playing already ask:) If she were to receive this benefit, would it change your views of letting her play?
16. Do you think being PA should be a priority for girls? Boys?
17. Do you think being Mexican has an influence on the way you think of PA?
 - a. IF yes: How?
18. Do you think Mexican culture and American culture are different when it comes to women/girls participating in PA?
 - a. IF yes: which do you think you follow more?

Appendix 2. Interview Question Guide for Daughters

Title: Mujeres Activas: Sociocultural Influences on the Physical Activity of Adolescent Girls and their Mothers of Mexican Descent

Researcher's Name: Carolina Martinez

Department: Kinesiology

- 1. When you think about PA, what comes to mind? (Distinguish different types of PA: dance, sport, exercise, etc.)**
 - a. What do you like about PA?
 - b. What do you dislike about PA?

- 2. Are you physically active? Yes, go to 2c and 2d. No, go to 2e.**
 - c. IF Yes: What kinds? How long have you been doing each activity?
 - d. IF Yes: Why did you choose the activity?
 - e. IF No: Why not?
 - f. **Both: Did anyone encourage or discourage you?**

- 4. If you want to participate in PA, do your parents allow you to do this?**

- 5. What limitations, if any, do you have?**

- 6. What does your mother/grandmother/aunt think about PA? Where do you think her views of PA come from?**

- 7. Do you have any brothers or sisters?**
 - a. Older/younger.
 - b. Do they participate in PA?

- 8. When you see girls engaging in PA, what do you think about it? What do you think other people think about it?**

- 9. Do you think girls should be PA?**

10. **What kinds of activities should boys do? Girls do?**
11. **If you could choose any physical activity, what would it be?**
 - a. Why would you choose those activities?
12. **Do you think your mother would allow you to participate?**
 - a. IF Yes: Do you think she would make it a priority? Would you make it a priority?
13. **Do you think being physically active benefits you in any way?**
14. **(If not already PA ask:) If it does benefit you would you want to be PA?**
15. **With whom would you do the activity?**
16. **Are your friends physically active?**
 - a. IF Yes: Do you guys do the same activities?
 - b. IF No: Would you encourage or discourage them to try it?
17. **Do you think being Mexican has an influence on the way you think of PA?**
 - a. IF yes: How?
18. **Do you think Mexican culture and American culture are different when it comes to women/girls participating in PA?**
 - a. IF yes: which do you think you follow more?

Appendix 3. Informed Consent

San Francisco State University

Informed Consent to Participate in Research

*Mujeres Activas: Sociocultural Influences on the Physical Activity of Adolescent Girls
and their Mothers of
Mexican Descent*

Researcher's Name: Carolina Martinez

Department: Kinesiology

A. PURPOSE AND BACKGROUND

The purpose of this research is to learn more about your thoughts on physical activity. The researcher, Carolina Martinez is a graduate student at San Francisco State University conducting research for a master's degree thesis in Kinesiology. You are being asked to participate in this study because you are a Mexican American girl in the 6th grade.

B. PROCEDURES

If you agree to participate in this research, the following will occur:

- you will be interviewed for approximately thirty-five minutes about what you think about physical activity.
- the interview will be audio recorded to ensure accuracy in reporting your statements.
- the interview will take place at a time and location convenient to you.
- the researcher may contact you later to clarify your interview answers for approximately fifteen minutes within three months of the interview.
- total time commitment will be 25-35 minutes

C. RISKS

There is a risk of loss of privacy. However, no names or identities will be used in any published reports of the research. Only the researcher will have access to the research data.

D. CONFIDENTIALITY

The audio recordings will be kept in a secure location, and only the researcher will have access to the data. At the conclusion of the study, all identifying information will be removed and the data will be kept in a locked cabinet or office for a minimum of three years.

E. DIRECT BENEFITS

There will be no direct benefits to the participant.

F. COSTS

There will be no cost to you for participating in this research.

G. COMPENSATION

Compensation for participating in this research will be a \$10 gift card.

H. ALTERNATIVES

The alternative is not to participate in the research.

I. QUESTIONS

You have spoken with Carolina Martinez about this study and have had your questions answered. If you have any further questions about the study, you may contact the researcher by email at cmartinez9468@gmail.com or you may contact the researcher's advisor, Professor Susan Zieff at susangz@sfsu.edu.

Questions about your rights as a study participant, or comments or complaints about the study, may also be addressed to the Human and Animal Protections at 415: 338-1093 or protocol@sfsu.edu.

J. CONSENT

You have been given a copy of this consent form to keep.

PARTICIPATION IN THIS RESEARCH IS VOLUNTARY. You are free to decline to participate in this research, or to withdraw your participation at any point, without penalty. Your decision whether or not to participate in this research will have no influence on your present or future status at San Francisco State University.

Signature _____
Research Participant

Date: _____

Signature _____
Researcher

Date: _____

Appendix 4. Informed Assent

Title: Mujeres Activas: Sociocultural Influences on the Physical Activity of Adolescent Girls and their Mothers of Mexican Descent

Researcher's Name: Carolina Martinez

Department: Kinesiology

9 to 13 year olds (grades 4 through 8)

San Francisco State University

Agreement to Be Part of a Research Study

Hi, my name is Carolina Martinez and I am studying for my master's degree in Kinesiology at San Francisco State University. I'm writing a paper about Mexican American girls' thoughts on physical activity.

I would like to interview you for 25-35 minutes to learn about your views on physical activity. The interview will be audio recorded to accurately report your statements. The interview will take place at a time and location convenient to you.

Your participation is voluntary. You don't have to participate.

If you don't want to participate, just do not sign this form.

Thank you,

Carolina Martinez

Teacher's signature _____ Date _____

Student's name _____ Date _____

Student's signature _____ Date _____

Appendix 5. Parental Permission

San Francisco State University

Parental Permission for a Minor to Participate in Research

Research Title: *Mujeres Activas: Sociocultural Influences on the Physical Activity of Adolescent Girls and their Mothers of Mexican Descent*

A. PURPOSE AND BACKGROUND

My name is Carolina Martinez I am a graduate student at San Francisco State University from the Kinesiology Department and I am conducting research about physical activity among Mexican Americans. I am inviting your child to take part in the research because she is Mexican American and in the 6th grade.

B. PROCEDURES

If you agree to let your child participate in this research, the following will occur:

- Your child will be interviewed individually and have their interview digitally audio-recorded. Your child will be allowed to ask any final questions, compensated for their participation, and dismissed.
- This will take place in a convenient location agreed upon by your child, yourself, and I.
- Total time will be no more than 25-35 minutes.

C. RISKS

There is a risk of loss of privacy, which the researcher will reduce by not using any real names or other identifiers in the written report. The researcher will also keep all data in a locked file cabinet in a secure location. Only the researcher will have access to the data. At the end of the study, data will be kept until the results are finalized.

D. CONFIDENTIALITY

The audio recordings will be kept in a secure location, and only the researcher will have access to the data. At the conclusion of the study, all identifying information will be removed and the data will be kept in a locked cabinet or office for a minimum of three years.

E. DIRECT BENEFITS

There are no direct benefits for your child's participation in this project.

F. COSTS

There will be no costs for your child’s participation in this project.

G. COMPENSATION

Your child will receive a \$10 gift card for participating.

H. ALTERNATIVES

The alternative is not to participate.

I. QUESTIONS

You have spoken with Carolina Martinez about this study and have had your questions answered. If you have any further questions about the study, you may contact the researcher by email at cmartinez9468@gmail.com, or you may contact Professor Susan Zieff, by calling 415-338-6574 or susangz@sfsu.edu

Questions about your child’s rights as a study participant, or comments or complaints about the study also may be addressed to Human and Animal Protections at San Francisco State University, at 415-338-1093 or protocol@sfsu.edu.

J. CONSENT

You have been given a copy of this consent form to keep.

PARTICIPATION IN THIS RESEARCH IS VOLUNTARY. You are free to decline to have your child participate in this research. You may withdraw your child’s participation at any point without penalty. Your decision whether or not to participate in this research will have no influence on your or your child’s present or future status at San Francisco State University.

Child’s Name _____

Signature _____ Date _____
Parent/Guardian

Signature _____ Date _____
Researcher