

**MOTHER'S AND DAUGHTER'S: INTERPLAY OF PHYSICAL ACTIVITY
WITH PERSONAL, BEHAVIORAL, AND ENVIRONMENTAL FACTORS**

Amy Enright

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Faculty of Sport and
Health Sciences
University of Jyväskylä, Finland

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ABSTRACT

The purpose of this study was to explore the family dynamics in order to further understand and discover through interviews a parent and their children's behaviors in the topic area of physical activity choices. A narrative case study approach was taken to look into each family's experiences in order to better understand their motivations behind physical activity and to make conclusions of the social, environmental, and behavioral dynamics.

Semi-structured interviews were completed with the parent and then with the child individually for a total of three families and four children. Family A is from South Korea living in Finland, family B is from Finland and living in Finland, family C is originally from and residing in the United States of America. Before data collection, a pilot study was conducted and the researcher made modifications based on these.

The background theory was social cognitive theory along with the transtheoretical model for change. The findings revealed much more than was first sought after. The first family was greatly affected by culture, the second family was influenced by culture and had the most direct effect from parent to child physical activity behaviors, and the third family was most effected by experience, culture, and parenting style.

The analysis discovered that the transtheoretical model stages of change had no direct correlation to the child's physical activity behavior choices in two of the three families. Finding of the present study gives an insight regarding family interactions and how the environment truly effect's our behavior choices and how we raise our children. This qualitative study is helpful to assist future researchers in developing more in depth and more expansive research within the family environment.

Keywords: family, transtheoretical model, social cognitive theory, physical activity behaviors, interview, influence

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1 INTRODUCTION

Individuals each have their own experiences as they take the path through life. These experiences determine how they become who they are, what choices they make in life, and many other aspects in their lives. Bandura defines learning as, "knowledge acquisition through cognitive processing of information" (as cited in Miller, 2002, p.173). Learning can be done in many different ways. One example that is often taught in educational programs to educators is that of Gardner who in 1983 identified Multiple Intelligences to show that individuals differed in their intelligence and as a result many educators have incorporated these intelligences into their classrooms hoping to reach all students' abilities (Guignon, 2010). In Gardner's theory, he lists eight intelligences. These are verbal/linguistic, musical/rhythmic, mathematical/logical, visual/spatial, bodily/kinesthetic, intrapersonal, interpersonal, and naturalist (as cited in Rodriguez & Bellanca, 2007). The point is to have the whole mind involved in learning. These are examples that are mostly practiced in the school setting to reach individual students effectively. The qualitative research being done here is very related but more directly acquisitioned within the family setting.

The family setting is where in many cases observational learning through social influence takes place. "Observational learning is one way of how individuals take in information in various ways from the behaviors of people around them" (Miller, 2002, p.178). Modeling is a specific occurrence that may happen especially with children as they grow. As children grow they observe the people surrounding them regularly like family, teachers, neighbors, those on television, and others. "The individuals that are being watched and learned from are called models" (Bandura, 1971, p. 5). Social learning is nothing new as it has naturally occurred since cavemen where around. Back then they were learning about things like fire and the importance it had for the future. This would be similar to a child learning to look both ways before they cross the street. The important thing to remember is that people are connecting our learners with the elements and the impact that the different elements have on their future behavioral choices.

"Humans are creatures of habit and this supports the notion that what individuals do in youth and adolescence in relation to physical activity will mostly determine their activity choices when they become adults" (Hirvensalo & Lintunen, 2011, p. 16-17). Physical activity is important for lifelong living and keeping the body healthy. Part of the goal of the research is to understand why individuals make the choices that they

make when it comes to healthy behaviors versus unhealthy behaviors. According to the World Health Organization, updated June 2016, worldwide obesity has more than doubled since 1980. In 2014 forty-one million children under 5 were overweight or obese, 39% of adults were overweight, and 13% were obese. Obesity is preventable. Lack of knowledge, increased intake of calories, and sedentary lifestyles are the likely causes and all of these are avoidable. Physical activity has so many irrefutable benefits for individuals physically, psychologically, in disease prevention, and in preventing premature death. The choices in youth; the choices that parents make for their children can very well determine the habits and behaviors of that child for the rest of its life. Hence, why this research is so very important to have change in future generations. There has been a change in the last three decades that is inevitably leading to a very unhealthy world. According to the National Academy of Science (2005) the trend data point to a substantial decline in physical activity levels in the workplace, at home, and in travel over a long period. Yet with all of this data, the concern is of why there is still this epidemic of continuous unhealthy choices across the world. We have evolved with technology, advertising, social norms, and other innovations that have a large impact on our daily health choices.

While there are many studies under the social cognitive theory (SCT) (Bandura, 1986), on physical activity and on modeling within the family setting; there are not very many that research into the combination of the transtheoretical model (Prochaska & Velicer, 1997) in with SCT. Exercise psychology is an important topic area in relation to the future health motives and behavior choices made among individuals. The relevance of this research is in using psychological theories and models to qualitatively study the descriptions of parent and child to determine the outcome in relation to physical activity behaviors. The intention is to explore whether the parents' stage of change has an influence on the child's activity behaviors and to discover what social cognitive effects take place all in all. The study provides useful exploratory data, which in previous literature is not fully covered, and aids in the action for future research to be completed in more detail.

2 LITERATURE REVIEW

Research on family dynamics is a field that is well researched by many and this research has been key in improving and making change. The influences that occur within the family are previously researched in different aspects such as parent modeling, child perceptions, family environment, belief system influences, genetics, and others. Using the transtheoretical model and more specifically the stage of change theory as a link to children's observations of parents has not been studied from the researchers' background research into the area. Knowledge of the family influence in this aspect can help future family programs to not only focus on the children, but the whole family to create behavior changes in relation to physical activity levels. The cycle of healthy behaviors would continue to develop if the adults that influenced children were constantly remembering that their choices will affect each child's future. According to the Cleveland Clinic Physicians (2012), some of the most important risk factors that contribute to the development of coronary artery disease and stroke in adults have their origin in childhood. These factors include hypertension, obesity, cholesterol, and unhealthy lifestyles. In addition to this point, "...unless youngsters take up the smoking habit in their teens, they rarely become smokers in adulthood" (Pajares & Urdan, 2006, p. 16). Behavior changes are imperative for the future health of the world to turn a new leaf and change the current statistics for the better. The constant challenge that is faced is that physical activity decreases significantly as individuals transition into adolescent years (Brodersen, Steptoe, Boniface, Wardle & Hillsdon, 2007) and further decreases as adolescents switch into adulthood and beyond (Gordon-Larsen, Nelson & Popkin, 2004).

2.1 Social Cognitive Theory

The main theory that will be the backdrop to this research is social cognitive theory (Bandura, 1986) due to the research being based on family influence from parent to child. Social cognitive theory was originally social learning theory. According to Bandura's social learning theory (1977) we learn from social behavior through observation and through watching others' behaviors and actions in respect to different traits. Observational learning or modeling can be learned at any age throughout life, but often starts at home within the family at birth. A qualitative study on parent modeling by Wright, Wilson, Griffin & Evans (2010) concluded that "children with two active parents were almost six times as likely to be active as children whose parents were sedentary"(p. 225). There are many studies that take into account parental influence on their children in many different aspects of life

Social cognitive theory (Bandura, 1986) has different characteristics of strengths and weaknesses. Learning theory came from many researchers working over a span of more than 60 years (Miller, 2002, p. 166). SCT emphasizes on these different facets of the personal, environmental, behavioral, external & internal social reinforcement, past experiences, and why individuals engage in specific behaviors. Behavior studies in 1913 by John Watson was the first basic theory of why people do the things they do focusing on the stimulus-response of how behavior was regulated. The basics of SCT are about how individuals observe one another to learn and to influence future behavior choices. The core concepts of the theory contributed by Bandura include "observational learning, children are self-regulatory, and triadic reciprocal causation provides a model of behavior change (the person, the environment, and the behavior)" (Miller, 2002, p. 210). For example, how individuals view their behavior will impact their environment and their personal development cognitively, affectively, and biologically. "Much of Bandura's research has specifically worked with situational variables and how this has effect on the model or how the model affects the specific situation. These situational variables are viable for studying children's thinking, remembering, and learning" (Miller, 2002, p. 205). Children observe their surroundings continuously as they develop and grow for example in Michaelson, McKerron & Davison (2015) study a participant reflected that when observing people at school, your brain automatically puts people into categories of healthy and non-healthy people, just by observing.

Bandura's (1986) social cognitive theory incorporates three different factors of environmental, personal, and behavioral factors. The corresponding effect of these three factors fluctuates for different individuals, different circumstances, and activities. The theory explains how individuals begin and continue behavioral patterns. "Social cognitive theory assumes as a fact that the behavior of humans is due to the dynamic interplay of these three factors" (Glanz, Rimer & Viswanath, 2008, p. 170). The environmental factors are among the least understood of the known factors in relation to physical activity (Sallis, Bauman & Pratt, 1998). Health behavior theories applied to physical activity behaviors have recognized different roles for environmental influences labeled as "barriers," "facilitating conditions," or "contextual influences" (Godin, 1994). The social environmental factors were research in two studies and the results concluded objectively different. Sallis, Prochaska, & Taylor (2000) discovered that parental influence on children's physical activity demonstrated lack of consistency for these associations. While, Neumark-Sztainer, Story, Hannan, Tharp, & Rex (2003) identified

support for physical activity from peers, parents, and teachers as positively associated with physical activity behavior. There is a particular need to distinguish the environmental factors that have an impact on physical activity choices (Sallis, et al., 1998).

The personal and behavioral factors that have the possibility to be associated with physical activity behavior choices consists of a range of components. One research study by Neumark-Sztainer, et al., (2003) included these items under personal factors: self-acceptance, self-worth, athletic competence, body satisfaction, benefits of physical activity, enjoyment of physical activity, self-efficacy to be physically active, BMI, age, and race/ethnicity. Factors that were included under behavioral were sedentary time and time constraints. There are other components that could be included within research covering SCT for example substance use, diet, and previous physical activity behavior (Sallis, et al., 2000). A systematic review of literature by Biddle, Whitehead, O'Donovan, & Nevill (2005) focused on adolescent girls and the correlates in relation to physical activity. Through this research it was shown that the three major perceived personal barriers were lack of interest and motivation, too much effort required, and "other activities" such as school work. For behavioral variables it was shown that smoking was related to lower physical activity levels and an undetermined relationship of television and video viewing/internet usage with physical activity behavior. Overall, research on the different factors does not explain the large proportion of variation in physical activity levels.

Inconsistencies occur when looking at the cognitive studies involved with social cognitive theory. There are inadequate amounts of research that display what exactly cognitive processes look like. In Miller (2002) cognitive processes were explored with especially abstraction and integration, how the cognitive system changes during development, and how changes in cognitive development change observational learning. In-depth qualitative and quantitative longitudinal studies need to be conducted in order to fully understand cognitive processes. Understanding the perceptions of how ideas are formed and what experiences create what perceptions would be imperative for future research. This is specifically important due to this research being done on adolescents. Cognitive levels at this age are still developing and changing. It is also a crucial time for guardians to have their last bout of daily influence on their children before they leave the home to pursue their futures.

One way to attempt to understand an individual's cognitive levels is to be aware of their perceptions and how that may influence behavior. Research by Michaelson, et al (2015) demonstrated that didactic and organic learning were found to be most influential in adolescent's perceptions of health knowledge and how to use this information in their personal lives. Organic learning was most influential and this included self-reflective experiences, experience of close contacts, casually observing others, and common discourse. Didactic learning while not as prominent in the study still had a large impact on the adolescents' perceptions discovered from the focus groups. For example, when the adolescent had first-hand experience of the consequences whether positive or negative, it gave an important health message of the consequences of physical activity (Michaelson, et al., 2015). Notably, experience from close contacts and didactic learning were spoken of in this research and demonstrates the importance of role modeling. Those closest to youth can influence their cognitive thinking clearly by being aware of the impact of their role in the life of the individual.

The focus of this research is within the area of being physically active. Family is the core of many individuals' daily life motivations and goal orientations. This applies to other creatures in the world, as well, which is why studies were first conducted on animals and later humans were studied in the same manners. Very simply stated, "...the child is born empty of content into a world of coherently organized content. Like a mirror, however, the child comes to reflect his environment." (Langer, 1969, p. 51). The behaviors and choices that individuals make as they grow older tend to be drawn from experience and social cognitive theory explains why this happens through research and real life analysis. "A factor that influences choice behavior can profoundly affect the courses lives take." (Pajares, 2006, p.4). There are different life choices that individuals make in relation to education, health, relationships, and other basic needs that are driven from their core beliefs and values. These are developed overtime through observations and life learning experiences.

2.2 Transtheoretical Model

In the current study, social cognitive theory is to be combined with the Transtheoretical model (TTM). There is very little research with this exact combination of variables. The transtheoretical model was researched and discovered by Prochaska & DiClemente (1984). It is one of the most popular stage models in health psychology and helps with the idea that change occurs over time (Horwath, 1999). Although the TTM has intuitive and heuristic appeal, it is not without criticism. "Some reject stage-based

theorizing of human behavior altogether on conceptual grounds, whereas others have expressed methodological or analytic concerns over existing evidence" (Marshall & Biddle, 2001, p230).

The transtheoretical model stages of change include the different stages of precontemplation, contemplation, preparation, action, and maintenance (Table 1). The levels of relapse and termination were added later after further research (Prochaska & Velicer, 1997). TTM displays that change is not a onetime effort but in actuality something that may take time and may wind around rather than being a straight staircase of steps (Marshall & Biddle, 2001). Previous research utilizing the transtheoretical model has covered a wide range of topics in order to develop programs to assist individuals with progressing towards the maintenance end of the behavior change. Different areas include smoking cessation (Andersen & Keller, 2002; DiClemente & Prochaska, 1982), weight control (Cardinal, 1997; Fallon & Hausenblas, 2004), and preventive practices with smokers (Marshall & Biddle, 2001; Prochaska et al., 1994). The stages of change are a good step in gaining the knowledge of how to reach individuals through comprehending their intentions and putting that information into successful interventions. The stage of change an individual is at will inevitably determine how that person spends their days. A person who is in the maintenance stage will spend a portion of each day most days of the week doing physical activity, while a person in the precontemplation stage will not even have the thought to do physical activity. Research shows that parents themselves who have weight issues will have a higher stage of change (Sealy & Farmer, 2011, p. 286) and additionally that parental bonding towards their children increases offspring physical activity (Dzewaltowski, Ryan & Rosenkranz, 2008, p. 853).

In a study by Rhee (2005), where research was conducted to assess parental readiness to help their children lose weight it was determined that there are possible barriers culturally that impact the parents' readiness to change behaviors. Although it was not specifically studied in this research, there were possible factors shown in this manner. This research will be taking into account the environmental factors to behavioral change specifically, focusing on the parent activities levels. According to Bauman and colleagues (2012), parental activity levels was not a correlate in adolescents. Rather, the family support was identified as a correlate.

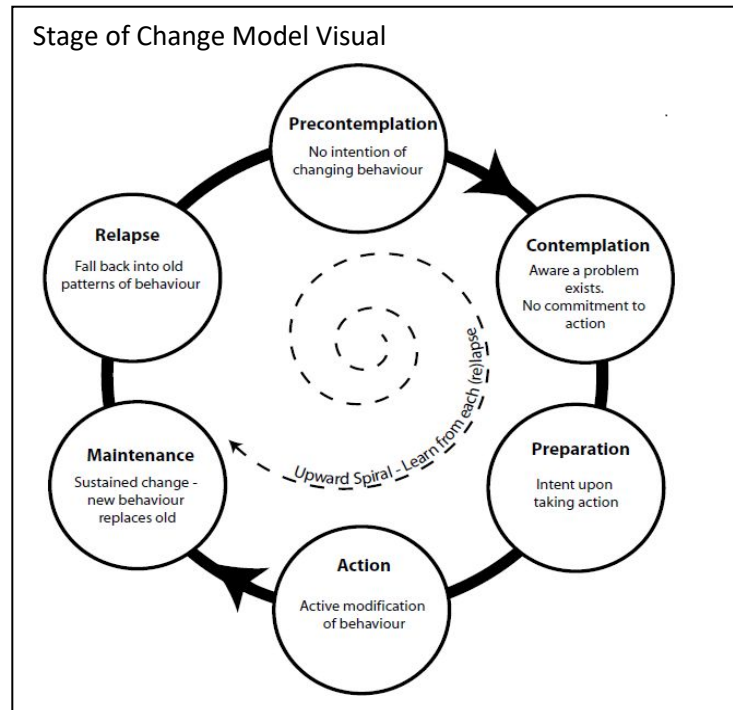


Table #1: Transtheoretical Model Stages of Behavior Change

Additionally, the adolescents' perception of the parents was not a correlate of their own activity. No specific research has been discovered to combine the transtheoretical model within the family setting specifically with the parents affect on the child's physical activity behavior. To support this the research provided includes examples of possible areas of relation to this current research. Bauman, et al. (2012) also discovered that the parents' beliefs and values have a greater influence on children's outcome behaviors than the parents modeling of said behavior. This is simply another factor to consider as this research explores the specific area of influence from parent to child in relation to behavior influence.

2.3 Factors for Physical Activity Ambition

Allender, Cowbur & Foster (2006) produced a qualitative research project which reviewed the research in the understanding of sport and physical activity participation in children and adults. In their research it was discovered that the main reason for participation was not health benefits, while this was recognized it was not among the main reasons for participation. The main reasons were weight management, enjoyment, social interaction and support. Intrinsic and extrinsic motivations are forms of motivation that are influenced by a variety of factors. "Intrinsic motivations refer to an individual engaging in activity for the pleasure and satisfaction that one experiences

while partaking in that particular activity whereas, extrinsic motivations are activities a person is involved with as a means to an end and not for its own sake" (Tenenbaum & Erklund, 2007, p.60). In relation to physical activity and sport the motivations of an individual and where they are derived from will determine how long that individual continues to participate in such activities.

According to Weiss' 25 year research (2013) the findings repeatedly show three major 'ingredients' when it comes to physical activity motivations. These are perceived competence, fun, parents, coach, peer influence. All of these ingredients can be influenced by the family. Individuals with intrinsic motivation, doing activity simply because one innately enjoys it, will have these values due to their surroundings and experiences as they grow. Constructive experiences have a habit of leading to strong positive individuals whom have strong personal competence. Additionally, having positive and enjoyable experiences in physical activities will tend to persuade individuals to continue participating in those sorts of events. "Opportunities for youth to form meaningful relationships with caring, competent, and compassionate adults and peers result in feelings of relatedness and competence, enjoyment and pride, and positive motivational orientations and behaviors" (Weiss, 2013, p. 565).

The different influences on boys and girls as they grow up in relation to pursuing physical activity and sport can have an impact on their motivations. In this research, the focus is going to be on the female gender. In Flintoff & Scraton's (2001) research active girls described having learned new skills, increased self-esteem, improved fitness and developed new social networks as motivation to being physically active. The school setting is the main location as to where children are exposed to sport and health that do not receive this information at home. The physical education teachers and the health teachers influence on the future choices of their students can be altered with a variety of variables. Negative experiences during school physical education classes were a strong factor in discouraging participation from teenage girls (Coakley & White, 1992). Simply being born one gender or the other can start a life on a path with environmental factors that could influence the future of that individual's physical activity behavior choices.

Sport specialization, limiting sport participation to a single sport with the specific goal of guiding the child athlete to top achievement, can alter the future motivations of that child and impact their intrinsic motivations of physical activity (Grupe, 1985). Research has indicated that a child's perception of their parents' involvement, support,

and pressures are linked compellingly to the child's levels of sport stress, enjoyment, and desire to continue participating (Power & Woolger, 1994; Stein, Raedeke, & Glenn, 1999). Macphail, Gorely, & Kirk (2003) discovered that with many different types of physical activity and sport opportunities for children participation was encouraged. Specialization in sport is beneficial if the athlete has an opportunity to be extremely successful within the sport, but as very few gain these types of opportunities the future of sport and physical activity should lean more towards variety of activity to gain lifelong intrinsic values for individuals.

2.4 Parental Influence on Physical Activity

Self determination theory is in relation to an individual's competence, relatedness, and autonomy towards their personal motivation to participate and succeed in tasks (Deci & Ryan, 1985, 2000). Each of these three areas was discussed in this review. Most research is in relation to competence rather than autonomy and relatedness. Relatedness has been the least researched area. Social learning theory also has a large impact on the modeling that is done within the family environment. In the future self-modeling and long term physical activity motivations, influences, and correlations should be researched. This would be a great area to implement into sport and in general physical activity motivations if it works long term. Additionally, how a family's' physical activity changes over time also needs to be researched. Lastly, a future topic is producing material on which parent should parent their children along with which child will be impacted the most at which times of the day. The family influence model is analyzed and implemented into the article by Cleland and colleagues (2011). It highlights the interactions within families that influence children's activity levels. Studying families through this model has shown that there are many factors within the family and outside the family that the children will observe, learn, and repeat. In this study it showed that the mother had influence on boys when they were older and that the father had influence on younger boys. All of these analyses would help in the long term change of health habits and further implicating future generations which is highly needed to see the world transformed. "We must become the change we want to see in the world" (Mahatma Ghandi)

"Children's health behaviors are formed at an early age, and many of these behaviors are largely under the influence of their parents" (Tucker, Zandvoort, Burke & Irwin, 2011, p2). It is known from research, families can have a large impact on their offspring and influence many different aspects of their future and current lives. These

include looking at the family interactions in relation to the family influence model, feedback from parents in a sport setting, and using accelerometers to determine activity relation among parents and child. According to a study done by Jago, Fox, Page, Brockman & Thompson (2010) sedentary time and physical activity time was measured and compared between the parents and children. The results were that there were no associations of parent physical activity to child's physical activity levels, but that it did not decrease or inhibit the children from being active. Additionally, the time spent sedentary (watching television) by the parents was related to the children's sedentary time. Thus, parents should encourage less sedentary time and encourage physical activity even if they aren't partaking themselves. There may be differences or even limitations when it comes to gender, time of day, and continuous influence. If the parents are involved positively in their child's life it can be solely beneficial for that child.

The second research article by Gershgoren, Tenenbaum, Gershgoren & Eklund (2011) on parental feedback towards boys in sport displayed a positive correlation between task/ego feedback to the athlete's motivations to perform. This study is a good source for coaches because some coaches limit parent involvement with sports teams. This research reported that if during a parent meeting the coach was able to set up expectations of the parents involvement and techniques for them to support their children it could have been extremely beneficial for the team's success and the individual players success. An addition, the researchers qualitatively interviewed the players to get their viewpoints of their parents. Through these interviews the researchers were able to measure self-efficacy and motivation of the athlete. Age was a factor in this study, showing that the boys at the age of twelve were able to differentiate between ego and task-oriented messages from their parents. With this piece of information one could predict that in younger boys the differentiation wouldn't occur as much and the children would be influenced in an ever more beneficial manner when it came to their motivation and sport performance.

The last research article (Fuemmeler, Anderson & Mâsse, 2011) was a very involved and unique research process where they tracked activity levels of families using accelerometers throughout the day. In addition, with this they compared mothers to fathers and the influence on sons and daughters. To conclude their data, it showed "to increase childhood activity levels it may be fruitful to focus on improving the moderate to vigorous physical activity levels among the whole family, including both parents"

(Fuemmeler, et al., 2011, p. 7). The parental influence throughout the day on the child's activity level was significant. The research also demonstrated the during different parts of the day that each parent might have a different influence on the children. This is again an interesting thought to think about and add to the influence of when each parent should be trying to impact their children. There are further study implications with this piece of results that could influence how and when parents should model behavior for their children to most substantially benefit their children.

The majority of studies done in relation to parental influence on family activity levels illustrate that it is a very large impact area. Media, advertisements, lack of information, economy, health, awareness/knowledge, and other reasons for the system failing is resulting in our family systems failing. "With the rapid development of information technologies for communication and entertainment, the emergence of 'information environments' as a sedentary behavior setting is of increasing relevance" (Owen, Leslie, Salmon & Fotheringham, 2000, p157). Research on media use in relation to physical activity behaviors and family interactions is scarce.

2.5 Children's Competence

Confidence comes from experience and practice in relation to task and ego oriented activities in an individual's life as they progress. Task orientation is the focus on personal mastery of a skill whereas, ego oriented activities include personal attitudes and achievements (Duda, Olson & Templin, 1991). Parental behaviors, perceptions, and comments about their offspring can have influence on competence. "When asked about the things that made it hard for their parents to be physically active with them, both boys and girls commonly stated that their parents work was a barrier, followed by being too busy doing other things and being too tired" (Wright, Wilson, Griffin & Evans, 2010, p. 229). Priorities and values are an area to be researched in future studies and how they have changed over the decades.

In Bois, Sarrazin, Brustad, Trouilloud & Cury (2005) study, analysis on competence levels was the main aim of the research and how parents' beliefs of their children filter down to what that child believes of him/herself. "The finding indicated that mothers' and fathers' appraisals of their child's competence did not significantly differ and did not vary with the gender of the child" (Bois, et al. 2005, p. 388). This shows that no matter what gender parents can influence their personal self competence positively or negatively. This technique can be taught to parents. Having parents model behaviors that would show competence along with showing their children that they

believe in them will help the children to build that confidence. Direct parental socialization and modeling may lead to healthier children, "...children with two active parents were almost six times as likely to be active as children whose parents' were sedentary" (Wright, et al., 2010, p. 225). The more involved parents are with raising their families when it comes to activity, eating, health, studying, being well mannered, and the more effect it could have on their children due to the observations being made by the offspring. Modeling is essentially one of the most unique ways of teaching without even being aware that we are doing it.

2.6 Summary

There is a vast amount of research specifically in the areas of social cognitive theory and its sub-themes. According to Bauman, Sallis, Dzewaltowski, & Owen, (2002) of the main theories used in physical activity research the different variables were supported 25% by the health belief model, 100% by the transtheoretical model, 67% by the theory of planned behavior, and 70% by the social cognitive theory. Therefore, it is a positive notion to combine the transtheoretical model and the social cognitive theory in this research as those two theories show the most correlation between the variables and physical activity. Physical activity itself is multifaceted with many dimensions that it is difficult to bind in within one theory. Additionally, there is plenty of research in the area of transtheoretical model in a variety of subject areas. Specifically, within the area of physical activity and the individuals' motivations to participate it is a never ending tunnel of knowledge that is discovered through research resulting in more questions. The National Youth Risk Surveillance (2001) demonstrates that high school girls of all racial/ethnic groups are less active than boys. Additionally, physical activity declines sharply during adolescence and most specifically among adolescent girls (Neumark-Sztainer, 2003). The benefits of physical activity over the lifetime, if maintained, can enhance an individual's lifespan and quality of life but only if these habits become an active part of the individual's life (Taylor, Blair, Cummings, Wun & Malina, 1999). These areas lack in-depth qualitative research along with attempting to see the whole picture versus only studying specific determinants within the factors. This exploratory research will attempt to dive into these elements. Therefore, it is necessary in this minor research to explore qualitatively the parents stage of change in relation to physical active behavior and how this influences their children. Additionally, considered in this research are the environmental and personal factors that have influenced the behavior levels and in result how this has impacted the child's behavior choices, motivations, and beliefs.

3 AIM

The purpose of this research is to explore whether the parents' stage of change is related with the child's physical activity behavior choices and to discover how the families describe their family dynamics in relation to physical activity behaviors.

4 METHODOLOGY

4.1 Researcher's Background

I believe that if as children we practiced, were taught, and viewed healthy habits around us we would then do the same as we grew into adults. The cycle of healthy behaviors would continue to grow if the adults that influence children were constantly remembering that their choices will affect the child's future. According to the Cleveland Clinic Physicians (2012), some of the most important risk factors that contribute to the development of coronary artery disease and stroke in adults have their origin in childhood. These factors include hypertension, obesity, cholesterol, and unhealthy lifestyles consequently childhood needs to be filled with serious educational and practical tools to learn how to develop and practice healthy lifestyles.

My ultimate career goals have always been to educate individuals about the lifelong benefits of exercise and sport. By teaching elementary physical education for eight years I tried to reach the children from as close to the beginning of their lives as I could. Before that I was always coaching or working with youth in athletics; hoping to leave a lasting impact on the children's future choices. Through these experiences I have come to believe that there has to be more as to why exercise and sport are such difficult topics for so many. I have educated children in all sorts of ways from presenting the benefits to showing the scary consequences of exercising verses not exercising. It really seems to come down to the individual and the values they have been taught at home from birth and what they are shown each day, in my opinion. As a teacher I saw the students for a total of 90 minutes a week with little effect on the students. Even with 150% effort into lessons, enthusiasm, posters, letters home, leading multiple school groups or events, and real life teaching I found great struggle. Their home lives and their families were where their core beliefs and understandings came from. The teachers are not the ones that feed them daily or that could sign them up for activities.

Instinctively, from personal observations, children love to be active and play. Their little bodies just want to wiggle and move. There are factors that influence their motivations for activity as they grow through their elementary years and beyond. These factors include their home life first and foremost. A school can try to influence this in the cafeteria and in Health/P.E. classes but the children spend so little time in these places. This support and teaching needs to be fully backed up in the home life in order to make a difference on their values. Additionally, at home children learn what they should be doing outside of school. Are the children allowed to go outside to play? Do they

come home and sit in front the of the T.V., computer, I-Pad, or videogames for hours? Are they a part of a club or team? Do their parents come home and participate in activities with them? There are many elements that influence what a child experiences and what behavior choices they are bound to make over their lifetime such as self esteem, bullying, friendships, lack of knowledge, health issues, income, family tradition, and so on.

I want children to be motivated and taught information in the correct way so that their futures are healthier and stronger. If we can influence the next generations of elementary aged children and their parents, it is my hope that there would be a domino effect. The current health issues that are spread across the world would filter out and would not be an issue for the majority as they are now. Pinpointing the motivation across the lifespan is key to this domino effect and the home life is the start of that life motivation. I had a fully motivational childhood when it came to health and fitness and believes this is possible for all.

4.2 Research Design

This study was conducted by using a qualitative semi-structured interview approach to explore and understand parents and children's physical activity levels and motivations. A narrative case study approach was used to design the study. The use of a case study allowed the researcher to study the family from both the parent and child perspective. Case studies have the ability when applied successfully to get the real life scenarios and collect rich data that many other research methods don't allow. Therefore, the purpose of doing this research as a narrative case study was to use exploratory research to seek and render an accounting via narrative of why something happened (Sandelowski, 1991). The study done here was developed to describe and understand the essence of family based experiences in the field of physical activity.

The data collection was conducted through the use of semi-structured interviews that were voice recorded on two devices. Data was collected from one face to face interview and additional follow up questions after first analysis was completed. As supported by Smith & Osborn (2008), most IPA studies have been based on individual semi-structured interviews with English speaking adults. The interviews were conducted individually with the guardian and individually with the adolescent. The decision was made to have a translator present for one of the adolescent interviews in order to help the participant feel more comfortable speaking and answering the questions in their home language. It is felt that this decision was necessary for the research to be

thorough. Ravel & Smith (2003) discuss how the interpreter can feel as though they need to advocate for the participant during the interview process which would result in issues. The interpreters in this research study were thoroughly explained how and what to do in their position and signed consent forms of confidentiality.

4.3 Participants

	Parent Interviewed		Highest Education	Child		Birth Country	Living in...
	Gender	Age		Gender	Age		
Family A	Mother - 38 (Ma)	38	Master Degree	Daughter - 12 (Da)	12	South Korea	Finland
Family B	Mother - 43 (Mb1)	43	Master Degree	Daughter - 16 (Db)	16	Finland	Finland
Family C	Mother - 45 (Mc)	45	Master Degree	Daughter - 15 (Dc1)	15	United States	United States

Table #2: Participant Data

Participants consisted of three parent-child combinations. Qualitative researchers generally study fewer people, but delve more deeply into those individuals, settings, subcultures, and scenes, hoping to generate a subjective understanding of how and why people perceive, reflect, role-take, interpret, and interact (Baker & Edwards, 2012). Family A consisted of interviewing the mother (38) and her daughter (12) who currently live in Finland but came from South Korea three months prior. The father of this family is still in South Korea working to support the mother and only daughter studying in Finland. Family B consisted of interviewing the mother (43) and daughter (16) who were both born in Finland and still currently live in Finland. As the daughter's parents are divorced and have new spouses the daughter essentially has two sets of parents that she lives with every other week. Family C included a mother (45) and two daughters (15) and (12) of whom are all born and residing in the United States of America all in the same place with the father. All biological mother's ages ranged from 38 to 45 years with a mean age of 42. The highest education level of all parents consisted of a master's degree or higher. Adolescent ages ranged from 12-16 with a mean age of 13.8. All four adolescents were female. All of the participants continued throughout the entire research study resulting in no drop outs. Advertisements were posted on social media to gather participants in addition to word of mouth. Participants were recruited through convenience sampling and purposive sampling.

4.4 Interview Guide

A semi-structured interview guide was created by the researcher. The questions in the interview guide were designed based on the transtheoretical model and social cognitive theory. The areas of questioning were divided into three main sections: stage of change questions or activity level questions along with environmental and personal factors. The choice to do interviews rather than making this research quantitative was based on the conviction that through the interview process the participants can give more detailed thoughts on their experiences and perceptions. Gill, Stewart, Treasure, & Chadwick (2008) mentioned that qualitative methods, such as interviews, are believed to provide deeper understanding than would be obtained through purely quantitative methods.

The semi-structured interviews additionally guided the participants to explore their own activity and family histories so as to help them divulge more information. There were two separate semi-structured interview formats; one for the parent and one for the adolescent. The parent questions included questions about basic demographics (e.g. "What is your educational background?"), retrospective (e.g. "When you started your family and had children - how did that effect your physical activity?"), stage of change (e.g. "In the next 6 months do you intend to become more physically active?"), environmental (e.g. "Do you have easy access to places in your community for physical activity?"), and questions about parenting (e.g. "Do you encourage your children to participate in physical activity? How so?"). The adolescent questions were similar topics but from their perspective. It was structured in the same manner with questions on demographics (e.g. "What grade in school are you?"), retrospective (e.g. "At what age did your parents start putting you in activities?"), stage of change (e.g. "Not counting PE, how many days a week do you participate in physical activity for at least 30 minutes?"), environmental (e.g. "Would you say that your neighborhood makes it easy to play (parks, trails, etc)?"), parenting (e.g. "What do your parents think about your activity?").

Before data collection, a pilot study was conducted to determine whether the questions were suitable for the parent and for the adolescent subjects. Doing a pilot study here is for the purpose of having a small scale version, or trial run, done in preparation for the major study (Polit, Beck & Hungler, 2001). The pilot participants were informed that their data would not be included in the research and that the interview was simply for the purpose of testing the current method and questions. Feedback from the pilot participants was taken into account along with reviewing the recorded

interviews to analyze and re-word questions, to discard ambiguous questions, and to check that questions have adequate arrays of possible responses.

4.5 Data Collection

The average length of the interviews was 60 minutes with each participant ranging from 49:47 to 1:12:30. Data collection began in November of 2016 and concluded April 2017. The participants answered demographic questions, signed the consent form, and responded to the semi-structured interview questions. The participants were explained verbally and in written form that they could withdraw from the interview process at any time and without any excuse. Additionally, they were explained the purpose of the study to have an overview of what would be occurring. During data analysis, the participants were each given a pseudonym name so as to protect their confidentiality and this was used for the results and conclusions of the research.

Interviews were conducted in English unless the participant was not fluently comfortable with the English language. In this one case there was a translator provided at the interview additionally the same translator assisted in the transcribing of this interview.

This was done to ensure the participant had as little language barriers as possible.

Additional data was collected from the daughter participants in the research a month after the interviews to gather a clearer picture of their activity levels. The four daughter's were asked to fill out a one week activity log along with how they felt and any personal critiques they had for themselves after that day. The interview guide was made to cover a variety of topics from their stage of change, environmental factors, perceptions, modeling questions, retrospective questions, motivation questions, and physical activity opinioned questions. The interviews were conducted face to face and audio recorded by two devices.

4.6 Data Analysis

The analysis of this research was conducted in an exploratory manner through thematic analysis. The qualitative design of this research was broad and enabled the researcher to immerse oneself into the content. The semi-structured interviews allowed for variation in questions as the researcher saw fit to how the interview was flowing. This technique allowed the participants to explore their perspectives of their lives in a thorough manner.

All interviews were transcribed and thematic analysis was conducted according to the themes discovered upon review of the interviews and the background theory. Most researchers consider thematic analysis to be very useful in capturing the intricacies

of meaning within a data set (Guest, Namey, & Mitchell, 2012). The transcription process was completed by hand along with the assistance of Trint.com, a website program aimed at assisting in transcriptions. Upon completion the transcriptions were sent to each participant individually for them to review, edit, and verify the information they had provided. Upon verification of member checking, the transcripts were read multiple times to get acquainted with the material so the researcher could proceed further with coding and analysis. Analysis of the transcribed interviews was conducted by hand using Microsoft Office Excel. This was a personal preference by the researcher to conduct analysis in this manner versus using a specific analysis coding program. The interviews yielded a total of 51,227 words and 165 pages of data. The three main theme topics were categorized by behavioral factors, environmental factors, and personal factors and within each of these there were a variety of sub-themes determined through analysis.

4.7 Ethical Considerations

All ethical regulations were taken into account in order to ensure the participants security. The guidelines from the ethics committee of the University of Jyväskylä were followed for this study. Participants signed a consent form prior to the interview process which was read individually and the researcher pointed out the key factors of the form to the participants for clear understanding. Participants were informed of what would be required of them for participating and that their interviews would be recorded on two devices for further data analysis. Throughout the research process the participants were assigned coded names to guarantee their anonymity. Additionally, they were informed that they were allowed to pull out from the study at any time for any reason.

4.8 Trustworthiness

In qualitative research trustworthiness is more obscure in comparison to quantitative research because different conditions are considered. There are four areas of qualitative analysis which include credibility, transferable, confirmable, and dependable (Shenton, 2004). Credibility was established with a few techniques one of which was a pilot interview with a parent and with a child. Upon completion of these pilot interviews the pilot participant was able to give feedback to the researcher about questioning, length, and interview style. Alterations were made according to these pilot interviews to determine the most effective line of questioning and the most relatable approach to allow the participants to freely share their stories. Additionally, triangulation was incorporated in the fashion of individual interviews and a one week activity log to get a general idea

of the daughter's activity levels. This additional information assisted in the credibility of the research along with the use of member checking. Transferability is lacking in this research due to its exploratory nature. In analysis, the researcher used the themes to guide coding and was very clear in understanding of what the participants' stories were. The researcher did not alter results and remained as unbiased as possible in the development of the conclusions made in this research to verify confirmability. Furthermore, this research has the ability to be replicated with other families in other cultures in order to explore the aim further and this assists in showing dependability of the research conducted.

5 RESULTS

Upon completing analysis of the interviews the data was categorized into major themes and sub-categories as (Table #3). The final thematic structure contained three major themes, which are: *Personal Factors, Environmental Factors, and Behavioral Factors* reflecting Bandura's social cognitive theory (1986). All the major themes are presented in this chapter and will be presented individually with their sub topics. In support of each theme, example quotes were selected for each theme area for clear understanding. For each quote, pseudonyms were used to indicate which participant made the comment.

For clearer presentation and understanding of the results, the family's backgrounds will be briefly described. In general, all biological parents have a master's degree or higher and they all either have a job, are in school, or a combination of the two. Family A is originally from South Korea and consists of a mother (Ma), a father (Fa), and a daughter (Da). The father is working, living, and supporting the family from South Korea. Whereas, the mother and daughter are in Finland both studying; the mother doing a master's program and the daughter enrolled in the Finnish system. Considering their physical activity, the mother partakes in yoga, swimming, and has just begun Taekwondo classes while the daughter participates in Taekwondo training. Family B originally from and resides in Finland consists of a mother (Mb1), a father (Fb1), a step-father (Fb2), step-mother (Mb2) as the regular adults in the daughter's (Db) life. The daughter alternates weekly with who she lives with and spends her free time participating in theater. The adults are all busy individuals with work and/or school in addition to their free-time activities which include exercise based activities. Additionally, there are a total of 7 children (4 biologically related to the daughter and 2 step-siblings) to keep in mind. Family C originates from the United States of America and consists of a mother (Mc), father (Fc), one older daughter (Dc1) and her sister (Dc2). In addition to this there are two boys younger than the girls within the family. Dc1 partakes in swimming regularly year round and Dc2 has varied in her activities but is currently participating in basketball and softball throughout the year. Both parents were avid athletes through their childhood into university years but currently are not. Each family has its own dynamics that influence how the families function and the behaviors that are a result.

Major Themes:	Sub-Themes:	Examples of Quotes:
Personal Factors	<p>Motivations</p> <p>Expectations of Child</p> <p>Knowledge</p> <p>Experiences</p> <p>Competence</p> <p>Enjoyment</p>	<p><i>"...to have energy."</i></p> <p><i>"...so if you're not going to do this what are other solutions do you have?"</i></p> <p><i>"It's good for you. It's good for your metabolism, it's good for your health. You should do it regularly. It's good social emotional like I don't know."</i></p> <p><i>"...so I wanted to try something for some sports but then like there's some bad memories and like then I always have to kind of hesitate to try."</i></p> <p><i>"Black Red Belt."</i></p> <p><i>"I don't really know why I get up in the morning. Like it's not fun. Like my team is fun but practice isn't fun."</i></p>
Environmental Factors	<p>Culture</p> <p>Neighborhood</p> <p>Family Interactions</p> <p>Parenting Style</p>	<p><i>"저는 핀란드스타일이 좋아요. (I like the Finnish style.)"</i></p> <p><i>"...best trails in all of Finland."</i></p> <p><i>"when I was younger if I was afraid to go off the diving board at my grandma's house. She would sort of just push me over push me and then my dad would catch me so I wouldn't be afraid."</i></p> <p><i>"so I always try to let her do her own stuff by herself..."</i></p>
Behavioral Factors	Physical Activity Behaviors Stage of Change	<i>"9 or 10 months out of the year PA. Well If I go to a class.... 3 to 5 days a week. I do that one or two hours okay."</i>

Table #3: Major Themes and Sub-Themes of the analysis

5.1 Personal Factors

The major theme *Personal Factors* was comprised of six sub-themes, which are *Motivations, Expectations of Child, Knowledge, Experiences, Competence, and Enjoyment*.

5.1.1 Motivations

"Keep fit to do things, to have energy, and for my health..." - Mb1

The questions in the interview process focused on the motivations of the parents along with the motivations of the children towards physical activity behaviors. Example questions included such things as: *What is your overall view of physical activity? What makes you wake up in the morning and go to practice/training? Why do you participate in these activities? Do you know what motivates you? What influences you? and What are your values?* It is significant to mention that there were commonalities in motivations between parents and children along with differences.

To explore further into the families' motivations, questions were asked to the participants individually in the hopes that they would be more honest if alone in the interview. Family dynamics could influence discussion and exploration of topic areas. Motivations consisted of reasons related to health, intrinsic and extrinsic, along with personal improvement. Interestingly, the parents were mostly motivated for health reasons, yet mostly encouraged their children to participate in activities for health, social, and emotional reasons. All three mother's made commentary in this area of wanting their children to be healthy. Mc stated, *"So we were like Dc2 we need to get you a sport just for social and health reasons"* and Mb1 stated, *"...we all need to stay healthy in our lives. This is what I want for my children."*

In contrast, the children were mostly motivated by intrinsic or extrinsic variables. Da seemed mostly motivated to participate in physical activity if she had a good teacher and if she was able to have autonomy, *"I can't really practice a lot there [South Korea] and the teachers help more here [Finland]."* She has been involved in instructional lessons for swimming and piano for example and in the end taught herself the skills on her own due to incompetent teachers. Db is mostly intrinsically motivated as she is no longer involved in an organized dance group, but she still spends time exercising on her own, *"Like running is not my thing, but I still do it sometimes because it's a good way of*

exercising." Most activities that she has participated in, with the exception of when she was very young were decided upon mainly by choice for her own reasons not necessarily due to parental pressures. In contrast, Dc1 biggest motivations come from her need to improve. She is regularly motivated by fellow swimmers, *"So I try and pick one person and I'm just trying to like catch up to them and be better than them. And then once I have them I'll pick another person. So then I'll keep getting better."* Also, the goal of achieving a faster time, and parental pressures. For example, *"...but like at the next meet I'll know I'll be glad that I woke up and went to the morning practices because I'll drop time and like place well."* Dc2 motivations stem extrinsically from having friends included and activities that are not of high stress, along with having a schedule of obligations. As stated, *"She's very, she doesn't mind as long as it's structured. She will do it but she's not going to just do it on her own"* and *"I like being busy when then it gives me something to do."*

5.1.2 Expectations of Child

"She doesn't want to do it, but still I always try to kind of give her an alternative. So if you're not going to do this, what are other solution do you have? And I let her think about it" - Ma

The purpose of this study was to describe and understand the parents in relation to the expectations that have about their child's physical activity. Through analysis of the interviews expectations were made quite clear by the parents. There were a few similarities in what the mother's stated. It was clear that the mothers want their children to live happy and healthy lives, and they want them to pursue the activities and hobbies that will guide them to these paths. Similar statements about having their children constantly involved in something were stated like by Mc, *"If they wanted to quit - that would be fine as long as they replace it with something else."* Additionally, Ma said:

She doesn't want to do it but still I always try to kind of give her an alternative so if you're not going to do this, what are other solution do you have and let her think about it

and Mb1 said:

The thing is we've always said that okay, well then start thinking what it is that you want to do, like what's the sport that you want to do because you

know you're going to be doing something anyway. So that's sort of the conversation.

In contrast, there were a few key differences in the parents' expectations of their children when it came to activity behavior and involvement. Mother A had expectations in relation to her investment that she was putting into the activity in monetary value by requiring of her daughter:

I have one very strict rule with her ...you want to start Taekwondo I am investing some money and this I want this money to be very worthy, so worthy, so at least I say one year, at least one year.

While mother b expected her children to partake in activities for their sake. Her commentary led to the idea of selflessness, concern and care for her children's overall wellbeing:

I think it's fear that if they don't have something then maybe like when they are teenagers they're going to be doing something not so good. At least like if I'm not active with them all the time then they will have some activities for themselves too.

Finally, the notions of mother c for her children were again in contrast as they were for the wellbeing of her children but additionally for more personal reasons. In a way she wanted her children to follow in her footsteps and was very determined to make this happen:

So I can honestly say that I wanted a swimmer. I got a swimmer. One, I wanted them to swim at an early age because you need to be able to swim so for that health safe, safety reasons I guess, so they needed to know how to swim. But I did want a swimmer so they played whatever else they wanted to play. But yeah I kind of wanted them to be swimmers.

The perceptions of the children are very important when reporting the expectation results as it can show a grave amount of insight into the world of the daughters involved in this research. The awareness the child has can lead to developments in making conclusions on the influences that were developed throughout their current lives. Overall, all four girls perceived that their parents wanted them to be healthy and wanted them to be doing something. Daughter b was very comfortable when speaking of what

was expected of her in saying how they just wanted her to have some hobbies and not just sit at home. It was very simple and very practical from her standpoint. Individually, at one point Da had an experience that showed her mother's expectations of her which did not match her own expectations:

여자애처럼 되게, 그러길 원하셨는데, 왜냐면 제 취향이 워낙 남성적... 중성적이라 그래서 발레 같은 거 시키셨는데 그것도 못하고 뛰쳐나왔고... (like more feminine, she wanted that because I have quite a masculine... neutral (epicene) taste... So she got me in ballet classes, but I couldn't take that so I ran out.)

The contrast between the sisters in family c was worth noting. The differences within the one family can be consequential in showing how parents affect their children's behaviors. The younger sister nonchalantly stated, "*They like me to do something.*" Whereas, the older sister who had been participating in one main sport the majority of her life, with trials of other activities along the way, was very strong in knowing what was expected of her:

I have to go to practice at least once a day. They always set goals, like set goals for myself like at the beginning of each season. Actually most of the time they make me go to both practices but it has to be at least once a day.

5.1.3 Knowledge

"I don't think I have the broad knowledge on physical activity." - Ma

The knowledge level of an individual on any given topic will determine how they analyze, criticize, decide, follow through, and in the end what choices are actually made for them, how they teach, and their modeling behaviors. Two out of three of the mothers had basic general knowledge on how physical activity benefits the individual physical, mentally, and gives balance to life. Two out of the three mothers additionally partake in physical activity for the purpose of gaining more energy to go through their daily routines. Mother a has very little knowledge and mother c has a very good base of knowledge due to her prior experiences in sport and exercise. Mother b is the only mother that falls into the both of those statements:

To be able to keep fit to do the things. To have energy. And for my health. Of course, it's good but for myself. I nowadays look at it maybe even more to the mental side. With all these kids and studies and work. I feel I need it to stay in balance. I really feel it. If I don't exercise. If I don't get my physical activity, then I start feeling really stressed and really anxious and angry. So, I've noticed it's really important for the mental side but of course for health too.

The daughters did not explicitly express their background knowledge about physical activity. To communicate this information to another was avoided in conversation. In analysis, the girls all had a similar general response when asked if they would do nothing if they had the choice to do nothing versus participating in their activities. All four girls said in one way or another that they would participate in something to stay active like Db, *"I want to stay healthy and do different kinds of things"* or to have something to do as expressed by Dc2, *"I mean I get bored really easily. I don't have a lot of patience. Unless like I'm interested in the topic or I like the thing that I'm doing so"* or so that they wouldn't gain weight like Dc1, *"Well I wouldn't want to get all fat. I eat a lot."*

5.1.4 Experiences

"I am so bad at the beginning I need some time always, so but I was so terrible, like I just didn't even know how to float myself on the water. And he was so harsh and so like, hahaha, kind of scold me and like he then one day he kicked myself on my belly like in the water." - Ma

In this portion of the results each family's individual analysis will be described as their experiences are pertinent to their personal situations. Family A has a unique experience as they are from South Korea and have lived in Finland for just three months. The mother's prior experiences such as the previous quoted example is an example of her bad experiences with teachers in the physical activity setting. Additional, patterns of experience show regular unfortunate occurrences as seen from her childhood physical education classes which include, *"...he didn't do anything to me but he did some kind of something very playful inappropriate to the other student who have had like very mature body"* and in her adulthood:

I did want to play badminton, so I went there. There were all men and a few women wearing short skirts and like I just don't think I mean I'm not

a feminist or something but I don't think I'm in this area is super good for women or something I don't think that they are respectful of women just enjoy and sports as human beings you know although I want to enjoy the sport there is like no fair and equal environment to enjoy the sports so yeah.

The mother shared an experience of the father which shows his capabilities when it comes to being physically active. This is her opinion and observation of his behaviors:

He kind of person who can. For example, the other day he just went to ski resort and he never learned how to ski ever in his life. And he just didn't he didn't take the... he didn't want to take any ski course something. He just directly went up to the hill. He just learnt how to go down by himself. So he kind of he's always learns how to play sports by himself. So she resembles her father side on that matter

In addition, her daughter seems to have similar past experiences. *"I like swimming, but I don't like learning swimming... Yes terrible, it was terrible - the teachers scary."* These experiences all occurred in South Korea. In the last three months of living in Finland there is a change in experiences and this will be described in further sections.

The experiences of family b are of a different experience than family a. They are more in relation to the time change and going through life. The mother has routinely circled through being active and partially active most of her life. In her statement its observed that as time has gone on this has become more difficult. Mb1:

If I was going by bike I wouldn't have the hours in the day. But yes, when I was younger I didn't have a car till I was almost thirty. So it was just normal to bike and to walk or take the bus or whatever. But, yeah but now my every day activities are really minimal to me.

Additionally, the father *"Yeah he played Finnish baseball when he was younger, probably still a bit I guess. But, he's been pretty active all his life"* and her step-father *"He's really good in everything like all the sports, just perfect in everything. But he's not that active now that the large family..."* As the daughter discusses her past one can see she was quite active, *"I think like when I have the dancing practices besides the theater. I used to have more physical activity. Like maybe when I was like thirteen years I*

sometimes have like five dance practices in a week" but has continued to narrow her hobbies down *"I think I had like so many other hobbies and I didn't have time."* At one point in time she was dancing, horseback riding, swimming, and playing the piano. Currently, she only does theater and then exercises on her own.

Continuing on to family c the mother and father's past physical activity experiences were in depth and committed:

I was a swimmer and I did poms So I would say I was very physically fit and active. So in college and in high school. Stopped because classes were just getting to be too much and a lot of my friends had graduated because they were a year ahead of me, so I stopped.

Complementing the wife in her activities the father was also quite active with his experiences through university level. Sadly, injury ended his career and still affects him to this day:

My husband played football and all through high school he wrestled in high school. He played football in college. I don't know, I want to say three years at some point he blew out his knee. And so then he stopped.

The mother additionally spoke of her experiences with her mother, the grandmother, which gives further insight into the family dynamics. *"I played the flute because my mother was a really good flutist. I don't know. So she really wanted me to play the flute."* She ended up playing the flute until her mother finally let her quit and then she started swimming.

The experiences of the daughters will be addressed here. They are individuals who have grown up in the same family with different experiences. The older daughter started out with swim lessons at a young age, *"And my coach, I think her name was like Charlie or something. She was like really really hard. So I would cry every single time my mom made me go to swim lessons."* She continues to swim to this day, though, is quite particular about her audience at competitions:

OK, so my mom, my dad, and my grandparents. They come to like everything. So that doesn't make me feel weird. But I do feel weird when like my aunt, or uncle, or my friends or my cousins or something or they come watch me and I do really bad and I don't know they make me

nervous. I don't know why. It just makes me nervous. I'm going to do really bad when they're watching me.

The following is the mother's explanation of the girl's similar challenging experiences that shows how a similar experience can have different outcomes:

Like they put her in the next level of the practice group. So it was tough. I mean I remember when Dc1 got moved to Mustangs. She cried in her goggles for at least three weeks like every single day. Just cried. I said you will get faster you will get better. Just keep with it. And I tried that with Dc2 and she literally like would wake up in the morning and curl up in a ball and say I don't want to go to the pool.

The younger daughter had a contrast in opinion compared to her sister as she went through the experience and the challenges of possibly becoming a swimmer:

It was just like a lot of swimming. And like I didn't have any time to play with my friends especially in 3rd grade. So that's the time when like everyone has like there little play dates and everything like that. So and I didn't get to have as many.

She does not partake in swimming currently, but it will be described further in the discussion on how all of the elements come together to influence the daughters. In terms of competition pressures Dc2 tends to be calmer as described by her mother:

Dc2 on the other hand has no has no problems and I kid you know, when she's batting. You know I'll be like, "hey elbow up." When she plays catcher and sometimes she'll forget to put her hand behind her back and I'm always afraid that she's going to break something. I'm always saying something and it doesn't really phase her, so completely different.

5.1.5 Competence

"The older I get the better I seem to consider my physical abilities." - Mb1

Throughout the interviews the participants would make statements that would give the researcher an idea about their competence. An individual can have different competencies in different areas of their life. Ma made statements about herself such as, *"I mean not super interested in sports but I actually enjoy like regular physical activities*

such as yoga or swimming." " We don't have any confidence you know in the area right and like (the coach needs to) respect, you know it's okay we are just at the beginning you know," and "I am so bad at the beginning I need some time always, so but I was so terrible." These statements help to identify her competence along with her background story described in other areas of the results. Fa through stories told by Ma has the ability to try out many new things with no issues and has taught himself different skills. Da is a black red belt in Taekwondo and is at the highest level for her attainment until she turns the age of sixteen:

Three times a week she has a regular class. Just a few days ago. She said, "Mommy I don't think three times a week is enough for me. I want more." You know what that was very first sentence that she said in her life. I never ever heard her saying like mommy I want more of anything.

Statements like, *"I think they are normal"* made by Db in response to what she thinks of her abilities gives a general analysis. In relation to her personal exercise routine which with this statement does not show much variety or challenge to it, *"It depends... I've done like pretty much the same workouts always."* To look deeper, *"In some things like dancing, yes, but in some others like soccer, not so much," "(when dancing) Not maybe that confident. But mostly."* and:

Like with swimming I think they just told put me in that because they wanted me to learn how to swim. Then I wanted to start playing the piano myself. And also for our horse ride I wanted to start myself. And dancing... I think my mom put me in when I was like little like four years old. But then when I started again when I was ten, I think like I wanted to go there myself. And with theater I think that was like I wanted to go there myself, and then my mom wanted also me to go.

The father's that are in the daughter's life were discussed previously in the experiences section and that commentary overlaps into the competency section. To reiterate both male adults were involved in sport in the past, and according to the mother are capable of doing almost any skill. Similarly, Mb1 when asked about her thoughts on her capabilities made this statement:

The older I get, the better I seem to consider my physical abilities. I thought I sucked in P.E. as a kid and didn't think of myself as sporty at

all. At some point maybe in my late teens I started noticing that I might actually have ok abilities in endurance, but still didn't think too much about my abilities. Then after I started trying out different group aerobics lessons it seemed I started also getting more courage to try out the limits of my body.

In contrast, the feelings of competence in family C are almost overwhelming as displayed with their commentary, "... *She never got nervous, like she does not get nervous.*" Statement made about Dc2 by her mother. Dc2 speaks about her own abilities here, "*I think my physical abilities are good because I am able to pick up easy because I am able to throw, kick, and run well which are all good things.*" Yet at the same time she also has these thoughts, "*No. I mean I am clumsy. Like sometimes I'll just fall down randomly but like I don't know.*" The mother, who was a swimmer through her young adulthood but currently participates in little to no physical activity stated, "*I think I am very talented, or was but I still believe I can do everything I could at twenty-three. I think I swim well, water ski well, and dance well.*"

The eldest daughter when speaking with her the conversation flowed quite easily and she had commentary in relation to her long time sport of swimming like, "... *so I don't know sometimes I just feel like I'm not that good because they're just SO good. It might not be that I'm slow it's just that they're like really really good.*" Having the ability to know right at the beginning of the competition how one is going to compete is telling of their personal competence in that activity:

I feel like right when I dive off the blocks like I feel like at first 25 I can tell if it's going to be good or bad because I either feel really really good in the water or I feel like not very good. And then it's like that for the rest of the race. I feel bad that I judge my race off the first twenty-five, but I do.

Additionally, "*So there's like four strokes you know. I'm really good at freestyle. I'm OK at backstroke. I'm really bad at the other ones.*" Dc1 has been to the state swimming event and has made the varsity team as a freshman in high school and feels that:

I'm just not.... When it comes to swimming a lot of my friends are like really really fast. So I don't always think I'm like like whenever I'm like at state or something or like I made varsity freshman year for the swim

team. I always get nervous because I don't think I'm as good as everyone else.

Additionally, Dc1 participates in other hobbies during the short period of off season that she has during the year. *"I'm good at like most sports and I mean not like really good. But okay."* Commentary about these activities helps to give an overall analysis. For example with the sport of softball:

I just tried out just because and I ended up making the team. Even though I had no idea how to play... I just never actually played any games so I didn't know how it would work but I figured it out.

5.1.6 Enjoyment

"I don't really know why I get up in the morning. Like it's not fun. Like my team is fun but practice isn't fun." - Dc1

Through discussion little was shared about actual enjoyment of activities but the commentary is still of importance. While interviewing Ma her story was made clear with this statement, *"Just now at 38 starting to enjoy some sports"* that this is a new and slow developed enjoyment for her. While her daughter, Da, was very specific with her enjoyment as it had to do with location, *"저는 핀란드 스타일이 좋아요. (I like the Finnish style.)"* Mb1 was very specific in her enjoyment of how it truly helped her push through the pain of divorce, *"I think going for long runs gave me joy at least once a day. And going to aerobics made me feel good for one hour after that and all that. So yes, it does work."* More purely, she feels that currently, *"My body lets me do all kinds of stuff. The new thing I've started is air yoga, and I love it! I think it's great that my body lets me try out new things."* Db does not participate in organized sport currently and so her response to enjoyment is in contrast to the other girls as they are all in organized sport. Db, *"It makes me feel happy. I enjoy doing them at least when I have like good music with them."* Mother C did not make any commentary on enjoying physical activities. She did comment on Dc1 and how she lets her participate in an alternate activity as long as it does not interfere with swimming due to the habitual manner of swimming:

But I guess that's the one she does year long. And it's, you know, you stare at a black line which is the reason she wanted to play softball. She was like this is fun. It's like a team sport and we all are in it together. So

she really liked that. She really liked when she did basketball too. But she likes to do things, she likes to try new things.

To support this notion is the statement at the beginning of this section about how Dc1 is not quite sure why she even wakes up for practice each day. In addition, she made commentary like, *"Every once in a while I kind of like hate swimming sometimes. But I also like love it at the same time"* and *"I'm really feeling really competitive. I don't like to lose and I'm really competitive and I really like to work hard."* Her sister, Dc2, has a different kind of enjoyment, *"I like being busy when then it gives me something to do."* In relation to sports her mother made this commentary, *"but she's out of the B level team(basketball) and very happy."*

5.2 Environmental Factors

The environment that surrounds all individuals prior to birth and all through their lives is a factor in how they behave. The elements that they are exposed to determines how they are conditioned and the tools they learn along the way. Every person in the world has a different perspective on life based on what they have experienced according to the environment's they have entailed. The major theme *Environmental Factors* consisted of three sub-themes: *Culture, Neighborhood, Family Interactions* and *Parenting Style*.

5.2.1 Culture

"And I hate that I hate that we're pigeon holing them into something like when they're you know in fifth grade - sixth grade or even before that." - Mc

When discussing culture with family A it was explained to the researcher the detailed differences between South Korea and Finland. As the mother states, *"Korean culture does not encourage for intrinsic motivations."* This mother and daughter have had the opportunity to experience both worlds. While the family had only been in Finland for 3 months at the time of the interview there were still drastic differences that were discussed in the interview. In Korea there seemed to be gender specific situations that the mother pointed out, *"...only a few women can kind of enjoy those sports with men in that atmosphere but I'm not that kind of person."* In this commentary she was discussing how she went to try a new sport but it was mostly men. And afterwards you

had to go engage in drinking activities until late in the night. Additionally, there was this aspect within the environment:

I did want to play badminton, so I went there. There were all men and a few women wearing short skirts. And like I just don't think I mean I'm not a feminist or something but I don't think I'm in this area is super good for women or something I don't think that they are respectful of women just enjoy and sports as human beings you know. Although I want to enjoy the sport there is like no fair and equal environment to enjoy the sports so yeah, and I'm not the only female who has this opinion.

In observation of her daughter's experiences from before and after arriving to Finland she had this statement to say about her when she was in primary schooling, "*... in her elementary school she was the only girl who wanted to play soccer and she got picked on for it among the girls group.*" In contrast:

...yeah she just got here (Finland) and she started to ride bikes and she loves it and she has engaged very much herself into Taekwondo, for sure And she's totally changing, I'm so happy! Yeah, I'm so happy to be here!

In support of this statement, Da regularly made commentary about how Finnish is better than what she new previously. "*Finland Taekwondo its fun,*" "*저는 핀란드 스타일이 좋아요. (I like the Finnish style),*" and "*I can't really practice a lot (Korea) and the teachers help more here (Finland).*"

The culture of Finland as experienced by the researcher is one of simplicity, health, support, self discipline, and other aspects that surround this culture. When interviewing family B it became apparent that the mother is working towards instilling these cultures into her children, but as the world changes the culture is also changing. For approximately one year the family lived in the United States of America when Db was still a baby. With this information the mother made a comparison to the U.S.A.:

In Finland, like even with the little ones like the 4 and 6 year old you can just say like, 'Okay well just put your clothes on and go outside and yeah you can go and ask the neighbors kids and just run around.' So that probably is different. Safer. Yeah because you can just let them out.

Additionally, commentary was made about how things used to be compared to what the norm is now. " ...when I was younger I didn't have a car till I was almost thirty. So it was just normal to bike and to walk or take the bus" shows how the culture of the mother has changed overtime. In addition, referring to her childhood "So yeah we went to our friend's place we tried to figure out something to do." In comparison to her observations of her children which are, "Because I'm a pretty strict mother and I don't let them sit at the computer and phone all the time... But I know they also go (to their friends houses) to play with a computer." When asked about what affects her from her environment when it comes to physical activity, Db responded with, "My whole family likes to exercise and eat healthy etc., so I think that." Through discussion it was also discovered that Db has participated in activities throughout her life, but has had to pick and choose along the way to narrow them down due to time constraints and life; "I think I had like so many other hobbies and I didn't have time. I didn't like that as much as dancing." In the end she actually has stopped dancing also and is focusing on theater due to there being some dancing included within the theater program.

Similarly, the parents of family C have the discussion regularly about the culture creating this idea that athletes must narrow their choice one specific sport at a certain point or they won't succeed:

umm... you know... Dc1 thought about running track - her coaches like her swim coach is like "absolutely not." And that whole cross training you know thing Fc and I discuss ... and not only that you're pressured at so young, like you also can't walk on to high school team anymore. The culture that Fc and I talk about all the time, that I absolutely hate is that there are no more three sport athletes.

The American culture has changed over time in the last decade to putting the pressures on athletes to specialize in a sport and making it a rare commodity to have an athlete at a high school who is balanced and participates in multiple sports. The mother makes a comment about her observations of how burnout can be a result that can occur due to this type of culture:

And so if you want to play you know if you really want to play in high school, you had to have started a long time before. And I hate that we're pigeon holing them into something like when they're you know this fifth

grade - sixth grade or even before that. And a lot of, I have a lot of old students who like you know either in high school or just out of, you know in college. They're like, "I just don't want to do this anymore."

Dc2 lacked in commentary when discussing environmental factors. Though, comparable to Db's thoughts on her environment influencing her choices Dc1 went through similar choice cycles. Having time constraints, more pressures, and needing to focus specifically on one activity were factors:

I think I did soccer up until sixth grade and then I quit. Because there's just not time for everything. Well, because for club once you get to middle school that's when doubles start so I had practice twice a day. And I couldn't do like practice twice a day and then have soccer on top of it.

5.2.2 Neighborhood

"It's like two blocks away (the park/lake)." - Dc2

Easy access to physical activity areas was discussed by all participants. The two families in Finland are surrounded by forests to explore, trails to run/walk or bike on, parks, and lakes to adventure in. When talking about where she lives Db said with confidence, *"Yeah. I think it's like one of the best in Finland, the biking trails."* Additionally, she made the statements, *"Yeah. We have near our house. We have a forest where you can go running. Next to our high school like there are sports halls and like gymnasts and everything like that."* Da did not respond with specifics about where she lived in Finland, but name the location which the researcher is aware of and the area matches similar description as what has already been stated. The two girl's also made commentary about how they will bike or walk to school most days if the weather is not too bad. Ma spoke briefly about her environment back in Korea, *"Ok I am from kind of countryside small city area and yeah the city is totally sports based city, so there are big parks and a lot of bike trails yeah we do have."* The family in America also lives in a similar woodsy neighborhood with a park and lake within walking distance as the mother describes it:

There are no sidewalks. No sidewalks, no lights. Well there's no street light, no. Yeah. So we just walk in the street and most people walk their dogs a lot. So I think the neighborhood and it's got nice hills. You know

it's like so when I do walk you know you walk up hill you walk down hill.
The neighbors are really social. So yeah I would say the neighborhood helps.

In contrast to the girls in Finland it is a, "*40 minute bus ride to school*" and there is "*No chance of walking/biking*" as a means of travel to and from school for two American girls. A description of neighborhood activity was made by Dc2 as she discussed her free time, summers, or weekends.

Yeah like I'll play outside in the summer. Like when it's warm out. I'll ride my bike around the neighborhood. I go down to a park with my friends or something like play tag, like sandman, and or something like that. So yeah and then or go down to the soccer field over the summer and stuff.

5.2.3 Family Interactions/Parenting Style

"I'm... I just never tried to push her. Like no, I never do it because I really want her to decide when she is ready to start again." - Ma

There are different ways of parenting and in the interviews there were regular remarks that display demonstration of the family and parenting. All three families started their children in a variety of activities as toddlers to develop their motor, social, and awareness skills. The relationships in family A are demonstrated by this statement, *"I'm not like you know, hugging her. You know how always I've always been a busy mom."* After a biking incident the daughter had fallen and the mother wanted to give her time to make her choice, *"I just never tried to push her...like no, I never do it because I really want her to decide when she is ready to start again."* Also, Ma shows how she has tried to raise her daughter here:

So I always try to let her do her own stuff by herself. So she got so used to it and she loves it. I knew that she's a kind of independent girl so I always try to go along with her own personality.

Communication and modeling are imperative to any relationship. From Da's perspective, *"Sometimes they are my friends, sometimes they are my teacher, sometimes they're my parents yeah."* In relation to communication, *"너무 이렇게, "공부해!" 이렇게 아니라, "공부하는 게 낫지 않겠니?" 이렇게. (They aren't like, "study!" But more*

like, "wouldn't it be better to study?")" Ma commented on how the father is away and the how the relationship is still being developed through distance:

He isn't here so they just talk on the phone like every day. And he listens to her concern about Korean politics and like how much she is engaging herself like in Taekwondo. And basically she can talk everything like everything to her father but I'm not the listener.

Also the mother's story of a response to her daughter really shows her parenting style, "*Later on I know she was regretting quitting(piano) and like yeah. But, I said that was your choice you kept a promise with me and that was meaningful to me but okay for you because it was your choice.*" In addition, the mother made statements concerning how she tries to parent:

I have to kind of establish certain environment you know at the beginning level and then we have to see if they would be interested in or not. Then if they're interested in that, then we have to support them. So yeah that's my own way.

There was also commentary made about the father and how he and the mother really work together to collaborate and compromise in raising their daughter for her life. He also seemed to do most of the physical activities with the daughter as represented in this observation:

They can play with it like for like three hours, like for the whole day. Any kind of sports. I always watch them enjoying the sports. Oh yeah, my husband he loves biking. So that's how she got it, from her father's side.

Part of being a parent is management and constant awareness. For some this can be quite challenging. Situations like this occur regularly in families and are common occurrence in family B:

Well asking them, "did you have practice this week?" Did you already sign up? Cause they have on the internet they need to inform their coach that they're coming to practice. So yeah, "sign up. So did you sign up for your practice this week? And do you have... How are you going to get

there? If I'm at work I'm telling them to ask for a lift. Yes. All the stuff they need for the practice their shoes and all that with their dad.

Mb1 has very busy life as she is mom, student, and worker. Additionally, she has many children to mold and guide even if she only gets a short amount of time each day to do it, *"So it's my husband these days who gets to do all the home stuff. I probably work til 6 or 7 o'clock,"* and having the philosophy that she has taught them well enough *"... at least like if I'm not active with them all the time then they will have some activities for themselves too."* An interaction between her and her son shows how she teaches management, *"...like I would take dinner to him and he would eat in the car on the way to another practice so I'm like okay this is this is too too much. You need to learn to be bored sometimes"* how she teaches autonomy, *"Trying to give them more choices themselves. Then trying to keep them going to the hobbies,"* and how she shows care:

But, also I try to find the time there like to work with the crisis. And give some time to them at least in their crisis. I know I would. I know they need time between the crisis too. Yeah. Yes. When they're having a hard time I try to find the time.

The daughter shows how the way her parents parent, *"Like they're always like being very supportive. And they always giving me positive feedback. Nothing really negative."* and how it has affected her behaviors with this commentary:

When I was in theater. And I think the first year I wanted to quit. But then my mom was like no you should go there. And then I decided I'm going to go for a one year and then after one year. I just wanted to continue.

Mb1 discusses how she tries to give them choice and the outcome of these teachings is displayed in the daughter's commentary about her activities throughout her life and how it was mostly her choice to participate:

Like with swimming I think they just told put me in that because they wanted me to learn how to swim. Then I wanted to start playing the piano myself. And also for our horse ride I wanted to start myself. And dancing... I think my mom put me in when I was like little like four years old. But then when I started again when I was 10, I think like I wanted to

go there myself. And with theater I think that was like I wanted to go there myself and then my mom wanted also me to go.

In family A the daughter and mother both train in Taekwondo together. The daughter prefers to practice on her own and is competitive. When asked if she would like to practice at the same time with her mother she responded, *"No it's okay."* There was even a situation where the trainer asked the mother if she wanted to be in the competition and the daughter's response was, *"No I would hate that you would go out with competition before me."* While, family B mother and daughter go to aerobics classes together, *"Sometimes I like go to like group workout, sometimes I go with my mom"* and this was something that she really enjoyed to engage in with her mother. Family C's mother seems to want to have more connection but with the busyness of life and with the family interactions she tends to get this response, *"I've been like you guys want to help me out with this?" You know say, "hey mom let's go for a walk" and they're like... "uhh no, not really." And I'm like, "ok, great thanks. Thanks for the motivation."*

Language is very important thing when it comes to communicating with others. What words are used and how we organize them. Mother C discusses how when her one daughter was not participating in a sport she would talk with her in this manner to try to encourage her:

I would be like, "why don't you go take the dog for a walk, why don't you go for a bike ride with your friends, why don't you go you know go to run." At one point, I was like if you're going to try out for travel soccer, maybe you should try running a little bit.

Occasionally, Dc1 has a high ego about her swimming abilities and in these situations her mother may say, *"...you know like there are people above you too. You know, I know you're a good Illinois swimmer but there's 50 other states out there. Like get over yourself."* Tough love is a standard within the family here, *"Well, my standard line is: You're not going to drown go and do your best."* Learning to understand what works and does not work with your children can take some time as they grow and develop. When Mc works with Dc1 she keeps this in mind:

I've learned at least with her, you know they're a little bit different, that if you talk about it more it doesn't make it better. Like you know I keep it short and sweet and then just let her kind of deal with it. Because I

always feel better if I keep talking, keep talking, keep talking. And that makes her more anxious and more anxious.

In contrast, while on the other hand when parenting Dc2:

Dc2 doesn't get nervous before big games in softball or basketball. There is not as much to talk about. She has it under control and goes out and does her best. Dc2 also doesn't get upset after she loses or has a bad game. She has a completely different mindset.

Both girls made a comment about extrinsic rewards after competition with two contrasting reasons. Dc1, *"So whenever she's like proud of how I did at a meet she'll always get me a giant thing of ice cream and my dad will just say nice job"* while, Dc2 made a remark of this nature *"... if I'm having a bad game and I'm like really upset about it. I'll probably go to my mom because she'll be like oh OK we can go out to your favorite restaurant after or something like that."* The girls did make similar commentary when they were comparing their parents to one another so in this aspect it was quite similar.

Dc1:

Well I think that my mom talks like more about the good things that I did. She'll be like like after a race she'll be like 'oh my god that was so good your starts were amazing and I saw how you were really trying to chase that girl at the end.' Then my dad would like say that I did good but he told me everything that I did bad. And he even told me that I need to work on that. So my mom tells me more like the stuff that I did good and then my dad tells me like the stuff I need to work on better and stuff. Well, with my dad I kind of wish he would say more good things like he could say like the bad things too because I need to hear that and I want to improve and get better. But I wish he would say like good things too like more of like than the bad things that I do.

Dc2:

But my dad is more like alright guys need to finish this hard. Like he'll tell me all the stuff I'm doing wrong. And say that I need to fix it and my mom will be like oh you're doing great. Even if I'm doing bad since it doesn't help the feeling really.

Finally, in relation to parent pressures the following are remarks to consider as Dc1 talks about how she does not want to attend every practice because sometimes she needs a break. The result of her attending practices when she does not want to is that she typically ends up having a terrible practice:

Sometimes when I'll ask her to skip and she'll go well you can skip if you want to I guess. She'll kind of say it in a way like she wants me to go, but she's saying that I don't have to go. You can tell she wants me to go.

Except she's saying I don't have to go. I don't like it. I feel guilty that I'm not going then. So I wish she would just tell me so that I wouldn't have to decide. I usually end up going then.

Sometimes, the pressures parents put on their children to fulfill their own personal needs is too much for the child to handle, not what will make the child happy and successful in life as demonstrated here by the stresses displayed by Dc2:

So I tried to make Dc2 a swimmer. And one day Dc2 sat on the floor and refused to go to swim practice. And I made her go for two weeks and she screamed and yelled and cried the whole entire time. And so finally I let her quit. Dc1 never quit on me.

5.3 Behavioral Factors

Transtheoretical model of behavior change tells us that there are stages we can fall in when trying to make a behavior change. There is a lot of research in this theory. The behavior change for this research is physical activity. The following will describe the participants' behavior level in relation to physical activity according to their interview remarks. The sub-theme of *Behavioral Factors* is the participants *Stage of Change*.

5.3.1 Stage of Change

"9 or 10 months out of the year PA. Well If I go to a class.... 3 to 5 days a week. I do that one or two hours okay." - Mb1

Each participant will be described as how they've been for the majority of their life and how they are now when it comes to the stage of physical activity behavior. Before getting married Ma, "I just went there, but like I didn't do anything for my own on a regular basis for myself. I didn't do anything but like after I got married after I just

started to juggle everything in my life." In her childhood and early adulthood she had attempts to start exercise or try something new but never consistently participated. Therefore, she was in the precontemplation and/or contemplation stage during this period of her life. Currently, she may partake in a yoga class *"Yeah, just one day, just Tuesday at in two weeks"* or swimming session and is trying to learn Taekwondo. It is still not on a regular basis therefore, she is in the preparation stage now. If she continues and becomes more consistent, she could easily move to the action stage. Her life change to living Finland seems to have had an impact on this and on her future intentions, *"I believe so because, I mean, especially the Taekwondo thing and I've been taking some basic sport classes at the University and because just now I feel like free from all the duties."* Additionally, she seems more driven, *"... can find whatever suits me whatever so I think I can find as an adult something good for me."* Her daughter, 12, spent the majority of her childhood in preparation stage partaking in activities here and there. Though, now for the past few years, *"Okay so since you were eight you said until now you've been doing Taekwondo couple days a week."* She also has motivation for staying here in Finland and partaking further in Taekwondo, *"Here is Taekwondo. I'm so determined to go to the competition next year, at least I have to be here next year."* Therefore, she is in the action stage. If she continues down this path, she could very well be on her way to the maintenance stage.

Throughout the interview with Mb1 of her life story with exercise there was repeated commentary. She has children from the age of 4 to the age of 16 so for the last seventeen years of her life she's been a committed mother. Therefore, there has been a cycle in her physical activity behaviors to match the cycle of her life:

And maybe every time maybe like six months after they were born six to eight months after they were born I started it again. I've been on and off person all my life. Just like I totally quit. And then I'm like okay let's start again. And which is always kind of hard. But then yeah, that's what happens.

When she is being active she is quite active, *"9 or 10 months out of the year physical activity. Well If I go to a class.... 3 to 5 days a week. I do that one or two hours okay."* Her routine seems to work for her and to be how it is. So in relation to the stage of change the researcher puts her in a constant cycle from precontemplation to action

depending on what part of the year it is. Her daughter, 16, participated in the normal primary toddler activities and then began to make her own choices. At a young age she began dance and participated in this for many years, *"I think like when I have the dancing practices besides the theater. I used to have more physical activity. Like maybe when I was like 13 years I sometimes have like five dance practices in a week."*

Therefore, she was very active for a good portion of her life thus far and was at the maintenance stage with how frequent and how active she was. This current year, though, she took some time off from dancing and is focusing on theater as her main hobby.

"...been dancing for eight years or so but this year I have so much other things. Staying out of it this year but maybe next year again." She bikes to school when she can and she participates in at-home exercise videos occasionally. In her future she thinks, *"Yeah I think I want to do something to stay active."* From her description, the researcher puts her current stage of behavior at the preparation/action stages. She is not consistent in her activities all the time, but she has plans to do them.

The maintenance stage when it comes to physical activity takes a lot of effort and diligence in order to keep it a habit to keep it a focus in your life. Mc was in the maintenance stage through her undergraduate degree and this was due to being on a sports team. Though after she was no long on the team her exercise habits became little to nothing. *"It's always my new year's resolution. But that doesn't mean it's going to happen. So I would like to, but whether it happens or not..."* Her life is filled with work and motherhood. *"My values are that all my kids are happy, healthy, smart, kind hearted, helpful, good people."* This is where her focus is versus it being on herself. Her current stage is contemplation and maybe preparation at times before she had children:

Probably little to... I would take a walk but I would say nothing. Once I stopped swimming really I didn't keep up. There for a while well there for a while I would go to the Y you know and walk or swim or do something but I can't say that it was that I tried to make it a regular habit. And it never really was so. And then definitely once the kids came we would again we would walk or you go to the park or do whatever. But I can say that unfortunately, ever since I stopped swimming in college I haven't had a regular workout routine.

The two daughters have mostly been in maintenance stage throughout their lives as they've constantly been in physical activities. Dc1, 15, more consistently than Dc2, 12, as she had a long break after she quit swimming to figure out her next step, but now she is back in the swing of things with basketball and softball. The researcher would put her in the action stage due to her timid responses. *"Yeah I really like both of them and it's good that there are different seasons because then I can decide to do both if I wanted too."* And her hesitant future intentions commentary about whether or not she'll continue, *"Yeah, if I stick with it into my freshman year of high school."* It seems as though she is still figuring things out and overtime may find an activity where she will be in the maintenance stage again. Dc1 is very consistent in her physical activity behavior and has possible intentions for the future as she has been asking her mother, *"You think I could swim in college?"* Yet, the factors of the culture that was previously discussed by her parents comes full force in this statement of her intentions if she does not swim in college:

I don't know probably just go to school (college). Do nothing, watch a lot of TV, hang out with some friends. Oh I might do that(exercise), But yeah. I don't think I would like join another sport because it might be too late, you know?

6 DISCUSSION

This section of the research will discuss the discoveries of the study and make connections to the previous research, the suggestions based on the exploratory research, recommendations for future research, along with final conclusions. The purpose of the study was to understand the parents' stage of change on the child's activity behaviors and to discover what social cognitive effects take place overall in relation to physical activity behaviors. The research that took place here additionally uncovered that the depth of the reasons for chosen behaviors and how individuals interact with others can stem from a variety of environmental factors and personal experiences.

6.1. Factors of activity behaviors

The story of the human life is complicated and there are a multitude of factors that come into play when analyzing behaviors. These three families have shared a piece of their lives to assist in this research and here it will be discussed in relation to their physical activity levels. This research was attempting to explore in-depth of how the parent's may impact their children through adolescence. It would be beneficial to further this study into adulthood. The intentions to participate in physical activity are impacted by numerous factors as discovered by this exploration research with these three families. Each family in this research has a different story and different conclusions in their own way. This portion of the research will be used to discuss each family's unique scenario and how it leads to the discoveries.

6.1.1. Family A

In this research, it was revealed that the parental life experiences seemed to have a large impact on the mother's behavioral choices and how her parenting styles were developed. Mother A grew up in South Korea where she connected exercise to school and assessments. Physical activity was never seen as an enjoyable activity as she grew throughout her life. Though she has the basic knowledge of the health benefits in relation to physical activity, participating in activities was never much of a value. It never had the opportunity to become a value in her life due to the experiences she encountered along the way. Only now, at the age of 38, after leaving her home country is she finally finding some enjoyment in exercise and physical activity. In Booth's (2000) research assessing physical activity from an international perspective it was discovered that inactivity increases the risk of the most common causes of mortality as

well as having economic and personal consequences. With such a threat to the worlds' health it is needed to have more cooperative research internationally to create more interventions and more wellbeing overall. This should prevent individuals like Ma from having such negative experiences that impact their future physical activity behaviors and attitudes. Her life's experiences muffled her ability to expand beyond her initial thought processes. Her continued attempts and efforts towards physical activity were always a disappointing or uncomfortable experiences. The culture in South Korea did not accommodate to her needs. From her interview it seems that it is common for women in South Korea to be blocked and unable to freely be active with confidence. Only after giving birth to her only child, Da, was it that she decided that in order to have the energy to be a mom, to take care of the home, and to work, she needed exercise to achieve this extra energy.

Within this family the dynamics changed dramatically when the mother was accepted into a master's program in Finland. The environmental influence of switching countries created a drastic change in the physical activity behaviors of the mother and the daughter. While, Da participated in some activities as a young child in South Korea, as expressed by her, it was not enjoyable and the learning environment was not to her liking. It did not facilitate towards intrinsic motivation. McNeill, Kreuter & Subramanian (2006) established that environmental factors were found to have a direct effect on physical activity. Additionally, that intrinsic reasons for participating in physical activity may increase one's confidence in the ability to be physically active. Though, in Finland the experiences she has encountered with Taekwondo are excessively different in her mind and her motivations for current and future participation has increased full force.

The move to Finland has had an effect on how the mother has parented and how she views sports in general. The relationship and care within this family runs deep to an understanding with communication and listening. According to Kimiecik (2011), children who have perceptions of their parents as being warm and affectionate, nonjudgmental, and supportive along with the parents encouraging self-directed behavior and individualized goal achievement provides a better chance for participation in such behaviors including physical activity. The daughter knows that her parents want her to be happy and healthy. Through the interview process it was developed that the mother has always let her daughter take her own independent path and to do things in her own

time. The parents expect Da to participate in some activities and to dedicate a minimum of a year to the task, but to think of alternative activities if that is not the chosen path after that time. The parenting style is in a supportive, guiding, and loving manner which has increased the daughter's abilities to make her own choices and developed a strong sense of self.

In this research the transtheoretical model's stage of change (SOC) was explored and through the research parenting style also was developed. The mother is described as being the precontemplation/contemplation stage prior to family and after family development she is in the preparation stage. While the daughter is described as previously being in the preparation stage and is currently in the action stage on her way to maintenance. The mother's SOC changed due to the cultural adjustment that they experienced and as a result the child also became more competent and more determined in her physical activity participation. An additional factor in the daughter's motivations was that the mother has been participating in the same sport of Taekwondo in Finland and this has created some competition as motivation for the daughter to continue and improve. The mother's SOC changed when she arrived to Finland as the culture here is more conducive to her preferred learning of having more accepting and understanding instructors. The daughter's SOC also changed when she arrived to Finland as she is more determined to participate and is creating goals for the future. The researcher does not believe that the parents SOC has had a direct impact on the daughter's SOC, but rather the stage of change has been developed in accordance to the environmental factors, the family dynamics, and experiences. In this research, the father was not interviewed but it was discovered that he partakes in cycling and has a very natural ability for physical activity and exercise. There is a possibility that this has had an influence on the daughter's behavior choices, but the father would need to be interviewed and more questions would need to be asked of the daughter in order to dive deeper into the whole family dynamics.

In conclusion, the exploration into this family's behavior choices and the influences that have affected them has developed a result that was not foreseen by the researcher. The greatest discovery that has been developed within Family A has been that where a person is in the world and which cultures or environments surround an individual along with who they have supporting them and how they support makes a massive impact on the choices in relation to physical activity behaviors.

6.1.2 Family B

In a short time of only a few decades the activity level of individuals around the world has become a cause of concern. The research continues to support the need for physical activity for the health benefits. Mother B remembers a time when it was rare to have a car and that she went everywhere by foot or by cycling. Being active was simply a part of the normal daily routine and it was more of a natural activity versus one that had to be planned for and put into the daily schedule. As time has passed, technological advances have limited the activity level of individuals. Increased time with media results in a decrease of time spent with leisure physical activity behaviors (Thompson, Rehman, & Humbert, 2005). Mb1 noted how her children tend to be on their phones a lot or go to their friends' homes because those parents are more lenient when it comes to technology time. Her past was filled more with activity and how it was simply a part of her life. She may not have participated in sport but she was regularly physically active. Her experiences have included a regular amount of physical activity throughout her life without any major dramatic events in relation to physical activity. If anything it has helped her move forward in times of high stress such as a separation. Physical activity is included within her core life values. Mb1 has an excellent base of knowledge in the importance of physical activity and how it is socially, emotionally, and psychologically beneficial.

Pomerantz, Grolnick & Price (2005) researched autonomy-supportive parenting style, which has been linked to children's higher perceptions of competence and higher levels of intrinsic motivation in achievement domains. Mother B parents so that her children learn to make their own choices and to be independent individuals, but has had the expectation that they participate in some activities throughout their childhood. She wanted to accomplish autonomy for her children when it comes to physical activity. From the interview process the daughter certainly displayed having autonomy in this manner. Additionally, through example of simply living the way she does working, living, parenting, and staying active as best she can in positive ways her children see that it's possible to partake in everything as long as they make it a part of their lives willingly. Additionally, living in the culture of Finland where there are bikes trails everywhere that connect every city and the people in this culture are constantly being active as a way of life not necessarily only for health reasons. Modeling of physical activity participation is demonstrated daily year round.

When the mother decided to pursue a master's degree in sport science, her children's reactions were of confusion as they had never viewed her as the sporty type. As a result, they did not understand why their mother was going to pursue a degree of this manner. Even with this perception of their mother they all participate in some sort of physical activity. Mb1 has never been a sport person, but has continuously had exercise as a part of her life and has modeled this to her children. Previous research has identified parental social support and modeling as important influences on child and adolescent physical activity (Gustafson & Rhodes, 2006). Through these ways of parenting and from viewing examples her daughter now makes choices to be active on her own. These choices are made for intrinsic reasons as she knows it is good for her and she wants it to be a part of regular life. Even though her children do not view their mother as a sporty person, they know that she is going to be doing it and that she's going to make time for it.

The stage of change of Mb1 has been a regular circulating cycle throughout her adult life. It has at times been no activity to being fully active on a regular basis. This cycle shows the struggle of keeping this value alive in her life. The different factors that have affected her behavior choices to result in the cycle are normal life situations but the true outcome that she has continuously come back to physical activity and plans to always have it be a part of her life shows real strength to her children of life's realities. The daughter's SOC prior to this year was at the maintenance level with her commitment to dance, but as she has halted participation in that her level is now fluctuating between preparation and active. She very much makes her own choices of what to participate in and seems to follow her mother in how she attempts to keep activity a part of her life. She is doing some home exercises or occasionally going running even though she hates running. Db is now at the point in her life where she will soon be on her own and completely making her own life decisions thus, her efforts lead the researcher to believe that her future will consist some sort of activity participation. In a review by Sallis, et al., (2000) parent modeling was not identified as an important influence and that parents maybe need to provide more direct assistance to support their children's physical activity. Resulting in evidence that parental physical activity was related to the child's behavior. In this current research the researcher believes there is evidence here showing that even though the parents activity may not solely impact the child's physical activity, it certainly is an identifiable portion. Mb1 has constantly modeled being physically active or has

tried to make it a part of her life and her children have encompassed these same values. The researcher believes that this family has developed results where physical activity is a part of the individual's values. The intrinsic enjoyment of physical activity is present so it is easy to model this to others. It is contagious and will affect the choices of offspring and those near with their competence and autonomy development.

6.1.3. Family C

The parents of family C had a very active life until early adulthood and in addition have clear expectations for their children based on their knowledge and experiences. Throughout the interview Mc made it very clear that she directed both of her daughters towards swimming because she very strongly wanted a swimmer. Her past experience with swimming along with her knowledge of the benefits of exercise are what drove her to guide her children this way. The two girls in the family were guided towards swimming and it seems that the two boys are being guided towards american football; as the father played and now coaches. The notion of choice and of developing intrinsic motivation towards the activity is not at the forefront from the researcher's perspective during analysis. The older daughter did not have an answer as to why she wakes up in the early mornings to attend practice. She explicitly said that it was not fun in reference to practice. The mother wants her children to be happy and healthy, but the researcher wonders if these health behaviors will be lifelong or if the children will experience burnout. It is suspected to be what happened to the mother and why she rarely participates in any physical activity.

The environment has additionally had an impact on the family dynamics in relation to physical activity behaviors. Mc expressed that her and her husband regularly discussed specialization in sport and how it happens sooner and sooner. Having this type of culture limits the athlete's ability to explore their abilities and discover what activity they may truly enjoy. There is a possibility that this specialization is what caused the younger daughter to end her swimming career. At such a young age swimming year round twice a day at times is an enormous amount of dedication for a primary aged child. When it comes to the three ingredients that Weiss' 25 year study (2013) indicated the key parts of physical activity motivations were perceived competence, enjoyment, and parent/coach/peer influence. Dc2 maybe had perceived

competence, but she was certainly lacking the enjoyment and the positive parent/coach/peer influence.

Schmitz and colleagues (2002) established through their research that adolescent girls had elevated levels of physical activity and a lower amount of sedentary behaviors if their mothers demonstrated an authoritative parenting. The researcher believes that through the interviews this type of parenting style was expressed by family C. For instance, with the mother's extremely strong feelings about making sure that she had a child that swam which led to the younger daughter to seemingly have emotional struggles about going to swim practice and the mother still pushing her to attend for a few weeks. Mc did eventually allow the daughter to make the choice to quit and was most likely parenting according to her experiences and intentions to guide her child towards an active life. Additionally, the older daughter would have liked to skip out on a few practices every now and then. Though, the mother responds to these requests in a manner that results in the daughter feeling guilty if she chooses to not attend which inevitably leads to the daughter attending practice. Both girls have strong goals in relation to their activities and the parents support these goals to the best of their abilities. In research it has been found that children who perceived a high support/high challenge parenting style had a significantly stronger fitness task goal orientation than children who perceived a low support/low challenge family environment (Kimiecik & Horn, 2011). The researcher believes that the parenting style within this family has an excessively large impact on the outcome of physical activity behavior choices and will inevitably also determine the future lifelong choices.

Through analysis it is believed that the stage of change that has affected the parenting and that has further affected the children's stage of change is the SOC of the parents 20 years ago. As the current level is analyzed as being at the contemplation stage but, the level until early adulthood was maintenance. It is strongly believed that the past is in clear correlation with the current affect on the children. The older daughter is in the maintenance stage and the younger daughter is at the precontemplation/action stage. Therefore, it is believed that the current SOC does not affect the children's behaviors but that the mother's past stage is what is having the effect as it is guiding how the mother parents and so a domino effect is occurring. In the end, the researcher is concerned with the future activity behaviors of the girls in family C. The girls do not consider physical activity and exercise a value and therefore there's a possibility that when the pressures of

the family dissipate so will the girls' physical activity levels. It is suggested that future research be done on athlete's and their intrinsic values in relation to physical activity and exercise in addition to the specific parenting style and how this affect's physical activity behavior choices.

6.2 Limitations

A number of limitations existed throughout this research process of data collection and analysis. The current participants were a purposeful sample. To study if the results would transfer the participants in the future would need to have a mix of genders. Additionally, the number of participants was a limitation. In order to gather data of this nature and have it saturate the data set would need to be larger. Language barriers were also a limitation. The researcher felt that the non-american families may not have fully explored their responses due to English being a secondary language for some participants. In addition, the one interview where a translator was provided there were still communication issues. Finally, a limitation may have occurred with the participants responding with their awareness of socially acceptable answers. There are limitations in all research therefore it has been concluded that this research was conducted to its full abilities with the resources the researcher encompassed.

6.3 Conclusion

Overall, in this study the mothers and daughters were interviewed to describe and understand parent to child associations on physical activity behaviors in relation to their stage of change and other social factors. Each individual family had trait characteristics based on their personal experiences, the environment, and the physical activity behaviors themselves. These traits included motivations, expectations, personal experiences, level of physical activity, knowledge of physical activity, what the environment facilitates towards, the parenting style, and the different cultures. Awareness of modeling influence needs to be taught to parents so that they can raise healthy and competent individuals. Each family, though, was unique in their own way and provided this research with an exploratory beginning to this type of research. It is evident that the parents want their children to be happy and healthy and the dynamics of everything involved to make this an actuality has a never ending depth of factors.

Through this research it has been concluded that the parent's current physical activity level in two of three families does not directly affect the child's activity level.

The knowledge, experiences, and culture of the parents does seem to directly affect how they behave as parents, nurture, and guide their children. The implementation of these factors will result in whether or not the information of health is passed on, explored further, or forgotten. Physical activity has to be taught whether it is putting children in toddler play classes, encouraging them to join a sport, or exercising together as a family making it a routine. The different approaches will determine the outcome physical activity behavior choices of the children and there are many different things to factor into this equation.

The researcher began this research study to explore the relationships within the family in hopes of discovering a window that would lead to future research and change. Future research needs to be applied so that real life results are able to be seen and thus more influence will be had on the population. The point is lifelong fitness for individuals all over the world and the dilemma is trying to figure out why this is so difficult to accomplish. Future research would benefit from more participants of both genders from more countries. Additionally, using the mixed methods approach in a longitudinal study to get a well rounded long term result would be greatly beneficial to the future of physical activity behavior choices. This research provides the first step to exploring specifically how a parent's level of physical activity behavior influences their children's choices.

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APPENDIX A

Consent form

University of Jyväskylä

Faculty of Sport and Health Sciences

A Qualitative Study of the Relationships Impact from Parent to Child on Activity Levels

Amy Enright

amy.m.enright@student.jyu.fi

Taru Lintunen

Maria Chasandra

Project Supervisors

I am a student studying at the University of Jyväskylä in their Sport Sciences master's program specializing in Exercise and Sport Psychology. I am looking into the lives of families for this research project.

During this study, you and your child will be asked questions about your experiences in your specific role as parent or as child in relation to physical activity in your life. The interview will take less than 1 hour.

However, I encourage you to elaborate on the topics discussed and the questions asked. Also, if at any point you feel uncomfortable answering the questions, please notify me and we will proceed to the next question. Additionally, you may leave the interview at any time for any reason and without explanation.

All the information will be kept confidential. The interview will be transcribed and stored as a transcript in a safe place. Only the researcher, possible aid with analysis by other students, and the project supervisors mentioned above will be able to access this information. Upon finalization of this project all the collected data will be destroyed. Finally, there are no known risks by participating in the present study.

Participant's Agreement:

I am aware that my participation in this interview is voluntary. I understand the intent and purpose of this research. I am aware that data will be used for a final master thesis research paper. The data gathered in this study is confidential and anonymous with respect to my personal identity unless I specify/indicate otherwise. I have read the above form and I have the understanding that I can withdraw at any time. I consent to participate in the interview.

Adolescent Signature

Date

Parent Signature

Date

Researcher's Signature

Date

APPENDIX B

Interview Outline

PARENTAL INTERVIEW QUESTIONS

Demographics Questions

Name.

Age. (both spouses information)

Educational Background. (both spouses information)

Nationality/Where do you live now. (both spouses information)

Occupation. (both spouses information)

Married/Single/Divorced.

Total # Children/Ages/Gender. (both spouses information)

-Can you share what kind of knowledge you and your spouse have when it comes to health and physical activity (ex: taken special classes, trainings, etc)? (possible follow up questions depending on their answers)

-What is your overall view of physical activity?

-Responses for spouse

Stage of Change Questions

-Do you and/or your spouse partake in physical activity? What types of activities?

-

Physical activity includes activities such as brisk walking, jogging, cycling, swimming, or any other activity, such as gardening, in which the exertion makes you feel warmer or slightly out of breath.

	No	Yes
1. I am currently physically active	0	1
2. I intend to become more physically active in the next 6 months	0	1

For activity to be *regular*, it must add up to a *total* of 30 minutes or more per day and be done at least 5 days per week. For example, you could take one 30-minute walk or take three 10-minute walks.

	No	Yes
3. I currently engage in regular physical activity	0	1
4. I have been regularly physically active for the past 6 months	0	1

Environmental Questions

- Do you feel that you have access easily in your home, work, neighborhood, community to participate in physical activities? Describe these.

-In your family, how would you say you spend your family time (evenings, weekends, summertime)?

Parenting

-Do you encourage them to participate in activity? How so? What activities?

-How do you think she responds to this?

-At what age did you begin putting your child in activities? Did they pick the activity or did you suggest?

-How would you describe your relationship with your children?

-What are your expectations?

-How do you think you portray your expectations?

-What more could you do?

Questions about the Past

-What is your history for you when you were growing up and before you had your family when it comes to sport and physical activity? A quick timeline of your physical activity habits started (15) years ago; depends on how old their child is that is being interviewed.

-When you started your family and had children - how did that affect your physical activity?

-When your children were below 5, 6-9, 10-12.....

What were your physical activity levels at these times ? SOC at these different times to create a timeline.

What did you do for your children in relation to their physical activity (sports, clubs) at these times?

When did they start noticing what your habits are, if at all?

How has your culture affected your activity levels? - your parents - nationality

Is there any other information you'd like to share.

Follow up Questions

What do you think about your physical abilities?

Do you think you are talented? Do you think you do well?

What are your values?

How do you think your current activity levels affect your child's activity level?

How does your past activity level/struggles/accomplishments affect how you teach/influence your child to partake in physical activity?

APPENDIX C

ADOLESCENT INTERVIEW QUESTIONS

Demographics

Name.

Age.

Grade in School.

Gender.

Work/Volunteer.

Where were you born? Where do you live now?

-Can you share what types of things you do in your free-time outside of school/how often?

- Specifics on these activities - how long participating - Why do you play these things?

What got you started? Why do you still play?

Do you know what motivates you?

Questions about the past

At what age did your parents start putting you in activities?

Did you get to choose these activities?

Did you enjoy them?

How have things developed since you were younger? Describe what activities you've done over time until now.

How have your parents physical activity levels changed as you've grown up?

How has what your parents done effected your choices?

Environmental Questions

-Would you say that your neighborhood/community makes it easy to play (parks, trails, etc)?

-Can you describe your neighborhood.

-In your family, how would you say you spend your family time (evenings, weekends, summertime)?

-How often do you have physical education or recess in school?

Stage of Change Questions- explanation of physical activity

Not counting PE, are you currently physically active?

Not counting PE, how many days a week do you participate in physical activity for at least 30 minutes?

Not counting PE, what is the time period that you've been doing this regularly - 1 month - 3 months?

Not counting PE, if no to the above, do you plan to start being physically active any time soon?

Do you like to sweat would you rather do other things?

If you had the choice to do nothing would you do nothing?

Your parents

-How do you think your parents physical activity levels is? Do they exercise enough or at all?

-What do your parents think about your activity?

-Do your parents encourage you in your physical activities? How so? What could they do better? Compare mom to dad.

-Do they have specific expectations of you for your future?

-How would you describe your relationship?

-What would you want them to say to you to encourage you?

When you look ahead to the next year or so - what kind of physical activity level do you think you'll have? Do you enjoy it and want activity to be a part of your regular life or do you not.

Is there anything else you'd like to add when it comes to your thoughts about physical activity?

Follow up Questions

What influences you?

If you didn't have swimming - would you participate in physical activity? Why?

What?

Does your moms activity choices affect what you do/choose? Dad?

When you do something do you say things to yourself - positive/negative conversations about how you did or what you did? If so, what kinds of things do you say to yourself?

Will you take on any challenge? Or are some things too hard to accomplish?

What are your values?

Is physical activity supposed to be fun or just hard work?

Do you know how to be healthy without organized sport?

APPENDIX D

Follow Up Activity Log

On Sunday Feb 19th I did what activities that made my heart rate go faster than usual (if anything) ?	On Monday Feb 20th I did what activities that made my heart rate go faster than usual (if anything) ?	On Tuesday Feb 21st I did what activities that made my heart rate go faster than usual (if anything) ?	On Wednesday Feb 22nd I did what activities that made my heart rate go faster than usual (if anything) ?	On Thursday Feb 23rd I did what activities that made my heart rate go faster than usual (if anything) ?	On Friday Feb 24th I did what activities that made my heart rate go faster than usual (if anything) ?	On Saturday Feb 25th I did what activities that made my heart rate go faster than usual (if anything) ?
And for approximately how much time?	And for approximately how much time?	And for approximately how much time?	And for approximately how much time?	And for approximately how much time?	And for approximately how much time?	And for approximately how much time?
How did I feel?	How did I feel?	How did I feel?	How did I feel?	How did I feel?	How did I feel?	How did I feel?
Were you successful /did you do well/Any critiques?	Were you successful /did you do well/Any critiques?	Were you successful /did you do well/Any critiques?	Were you successful /did you do well/Any critiques?	Were you successful /did you do well/Any critiques?	Were you successful /did you do well/Any critiques?	Were you successful /did you do well/Any critiques?