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Exploring the relationship between parent beliefs and athletes' perceptions: A sport commitment approach

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University of Northern Iowa

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EXPLORING THE RELATIONSHIP BETWEEN PARENT BELIEFS AND ATHLETES' PERCEPTIONS:
A SPORT COMMITMENT APPROACH

An Abstract of a Thesis
Submitted in Partial Fulfillment
of the Requirements for the Degree
Master of Arts

Heather M. DeWaard
University of Northern Iowa
May 2008
ABSTRACT

The purpose of this study was to explore the relationship between parents’ and gymnasts’ perceptions on sport commitment constructs. The sport commitment model developed by Scanlan et al. (1993) provides a theoretical framework in which to explain why athletes participate. Two constructs in the sport commitment model, social constraints and support, represent the social influence factors which can be perceived as supportive or pressuring and may come from a variety of sources such as: parents, coaches, teachers, and peers. Parents tend to play an important role in their child’s sport experiences (M.R. Weiss & Ferrer-Caja, 2002), and may influence an athletes’ level of sport commitment. The majority of research exploring social influence and sport commitment has examined the athletes’ perceptions of social influence (e.g., Carpenter & Coleman, 1998; W. M. Weiss & Weiss, 2007), with no studies examining both parent and athletes’ perceptions of sport commitment model constructs.

A total of 283 female gymnasts and their parents participated in this study. Results indicated weak to moderately weak relationships between parents’ and gymnasts’ perceptions of sport commitment constructs. Multiple regression analyses revealed that parent perceptions of social constraints and benefits were significant predictors of the gymnasts’ level of sport commitment. Parent perceptions of different types of social support did not predict gymnasts’ level of sport commitment. Competitive level differences were also explored, with parents of gymnasts competing in levels 8 - 10 perceiving higher costs compared to parents of gymnasts competing in levels 4 - 5 and
Parents of gymnasts competing in higher levels (6 - 7 & 8 - 10) perceived higher utility value than did parents of gymnasts competing in lower levels (4 - 5), and parents of gymnasts in lower levels perceived higher parent intimacy and companionship compared to parents of higher level gymnasts. Future research should continue to explore the influence of parental perceptions on athletes' commitment in sport.
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May 2008
This study by: Heather DeWaard

Entitled: “EXPLORING THE RELATIONSHIP BETWEEN PARENT BELIEFS AND ATHLETES’ PERCEPTIONS: A SPORT COMMITMENT APPROACH”

Has been approved as meeting the thesis requirements for the Degree of Master of Arts.

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CHAPTER I

INTRODUCTION

In the sport domain several determinants influence an athlete's decision to continue or terminate sport participation (e.g., M.R. Weiss & Petlichkoff, 1989). The sport commitment model introduced by Scanlan, Carpenter, Schmidt, Simons, and Keeler (1993) is one motivational theory developed specifically for the physical domain. The sport commitment model consists of six predictors: enjoyment, personal investments, attractive alternatives, involvement opportunities, social constraints, and social support, with each construct predicted to have a positive or negative effect on sport commitment.

Scanlan and colleagues hypothesized that enjoyment, personal investments, social constraints, involvement opportunities (Scanlan, Carpenter, Schmidt, et al., 1993), and social support (Scanlan, Russell, Beals, & Scanlan, 2003) would all have a positive relationship with sport commitment, whereas attractive alternatives would have a negative relationship. M.R. Weiss and Ferrer-Caja (2002) suggested three constructs of the sport commitment model may act as barriers to leaving sport: personal investments, involvement opportunities, and social constraints. An increase in these three constructs would limit the desire to terminate sport participation.

Generally, past research on the sport commitment model has indicated enjoyment as the strongest predictor of sport commitment (Scanlan, Carpenter, Schmidt, et al., 1993; M.R. Weiss & Ferrer-Caja, 2002; W.M. Weiss & Weiss, 2007). As personal investments and involvement opportunities increase, sport commitment also tends to increase (Scanlan, Carpenter, Schmidt, et al., 1993). Social constraints have been shown to have a
positive (e.g., Carpenter, 1992), negative (e.g., W.M. Weiss & Weiss, 2007), or no relationship (Scanlan, Carpenter, Schmidt, et al., 1993) on sport commitment, whereas social support has been shown to have a positive influence on sport commitment (Scanlan et al., 2003). Attractive alternatives is the only construct to consistently show a negative influence on sport commitment (e.g., Carpenter & Coleman, 1998; Carpenter & Scanlan, 1998).

Sport commitment has also been examined from a commitment type perspective (Raedeke, 1997; Schmidt & Stein, 1991; W.M. Weiss & Weiss, 2003, 2006). Research has shown that at least three different types of sport commitment exist across a variety of ages and competitive levels (W.M. Weiss & Weiss, 2003, 2006). First, attracted athletes have the most positive experience. They are characterized by higher enjoyment and benefits, and lower costs and attractive alternatives. Second, entrapped athletes perceive their sport participation negatively with lower enjoyment and benefits, and higher costs and attractive alternatives. Third, low committed athletes are characterized by moderately lower enjoyment and benefits, average costs, and moderately higher attractive alternatives. Athletes possessing these three different types of commitment, attracted, entrapped, or low committed, have also reported varying levels of commitment, with attracted athletes reporting the highest levels of sport commitment (W.M. Weiss & Weiss, 2003, 2006). Much is known about predictors of sport commitment and differences in commitment types, but not much is known with regards to the influence of significant others on sport commitment.
Significant others play an important role in young athletes’ motivation in sport (M.R. Weiss & Ferrer-Caja, 2002). Past research has examined the roles of parents (e.g., Babkes & Weiss, 1999; Brown, Frankel, & Fennell, 1989; Leff & Hoyle, 1995), coaches (e.g., Smith, Smoll, & Barnett, 1995; Smoll, Smith, Barnett, & Everett, 1993), and peers (e.g., Patrick, Ryan, Alfeld-Liro, Fredricks, Hruda, & Eccles, 1999; Ullrich-French & Smith, 2006) on young athletes’ determination to continue various activities. Within the sport commitment model, social influence is directly represented via the social constraint and support constructs. M.R. Weiss and Ferrer-Caja (2002) suggested that social constraints are often a barrier to leaving sport because athletes feel obligated to significant others to continue their sport participation (Scanlan, Carpenter, Schmidt, et al., 1993). In contrast, social support is the feeling of encouragement and unconditional regard from significant others to continue sport participation (Scanlan et al., 2003). Thus, these two constructs represent both negative and positive influences to continue. Social constraints and social support may emerge from a variety of sources such as parents, teachers, coaches, and peers.

Studies have examined the relationship between social influences and young athlete’s commitment or motivation to continue sport, school, and physical activity (e.g., Brown et al., 1989; Carpenter, 1992; Duncan, 1993; Patrick et al., 1999). However, the major focus of this study is parental influence and their effect on their children’s commitment to sport. Therefore, the role of coaches, peers, and teachers on the children’s sport commitment will not be examined.
Parents play an important role in their children’s sport experiences (M.R. Weiss & Ferrer-Caja, 2002). Parents are meant to be their child’s number one fan helping them learn, improve, and enjoy their sport experiences. However, some may not be fully aware of their impact on their child’s sport participation. Babkes and Weiss (1999) investigated the relationship between soccer players’ perceptions of their parental influence, parents’ perceptions of their own behaviors and beliefs, and athletes’ psychosocial responses to competitive sport. Athletes were asked about their perceptions of parent behaviors and attitudes toward their sport participation, and about their own competence, enjoyment, and intrinsic motivation. Findings revealed that children’s perceptions of their parents behaviors and attitudes were better predictors of enjoyment, perceived competence, and motivation than what the parents had reported. Therefore, children’s perceptions of parental behaviors and beliefs may play a larger role than the parents’ reported actual behaviors and beliefs. That is, children may perceive their parents’ behaviors as supportive or pressure.

Parental support or the encouragement they provide their children to continue sport participation has been predicted to have a positive effect on children’s sport experiences (e.g., Leff & Hoyle, 1995; Power & Woolger, 1994; Scanlan et al., 2003). Parental support is a vital component for both male and female athletes, with perceived support from parents increasing enjoyment and self-esteem (Leff & Hoyle, 1995). The influence of parent social support could potentially play the same role in sport commitment.
The role of social support and its influence on sport commitment has been examined in the sport domain (Carpenter, 1992; W.M. Weiss & Weiss, 2003, 2006, 2007). However, studies have yielded rather mixed or inclusive results. Some studies have shown social support to positively predict sport commitment (Carpenter, 1992; Scanlan et al., 2003; W.M. Weiss & Weiss, 2007), while others revealed social support as having no significant influence on sport commitment (Carpenter & Coleman, 1998; M.R. Weiss; Kimmel, & Smith, 2001).

Differences have also been shown with regards to sport commitment types and gymnasts of varying ages and/or competitive level and social support (W.M. Weiss & Weiss, 2003, 2006, 2007). W.M. Weiss and Weiss (2003) examined sport commitment types with competitive female gymnasts. They found attracted gymnasts perceived higher positive regard from parents compared to entrapped gymnasts. W.M. Weiss and Weiss (2007) explored age and competitive level differences on perceived social support from parents. The youngest gymnasts reported greater companionship, admiration, and intimacy from their parents than early/middle adolescents. Early/middle adolescents reporter higher reliable alliance than older adolescents. Lastly, the two younger groups of gymnasts reported higher instrumental aid than the oldest group of gymnasts. As for competitive level, gymnasts competing in levels 5-6 reported higher companionship, intimacy, and admiration support from parents than gymnasts in levels 8-10.

Although some children may perceive supporting behaviors from their parents, other children may perceive pressuring behaviors. Parental pressure is the motivational influence a parent uses with their child in a sport setting to compete in athletics, perform
at a certain level, and continue their sport participation (Hellstedt, 1990). Leff and Hoyle (1995) found that female athletes’ perceptions of parental support from parents was inversely related to parental pressure. Thus, as perceived parental pressure decreased, perceptions of parental support increased. Hellstedt (1990) studied parental pressure and how this pressure influenced young athletes. Results showed that children reported moderate to high pressure from parents, yet not all athletes perceived pressure as a negative influence on their sport experience. The athletes who did not perceive parental pressure as negative felt that the pressure helped them become more committed. However, some athletes did feel that parental pressure was negative, and thus felt obligated to continue participation. Similarly, within the sport commitment model, social constraints represents the perceived obligation to parents, peers, and coaches to continue sport participation.

Social constraints were predicted to have a positive relationship with sport commitment (Scanlan, Carpenter, Schmidt, et al., 1993; M.R. Weiss & Ferrer-Caja, 2002). However, past research has found mixed results: some studies reported social constraints as having a positive influence (e.g., Carpenter, 1992), negative (e.g., Carpenter & Scanlan, 1998; W.M. Weiss & Weiss, 2007), or no effect on sport commitment (e.g., Carpenter & Coleman, 1998). For example, higher social constraints were related to higher commitment with a sample of high school male and female athletes participating in soccer, volleyball, and track (Carpenter, 1992), whereas with a sample of female gymnasts higher parent social constraints were related to lower commitment (W.M. Weiss & Weiss, 2007).
Perceptions of social constraints have been shown to also vary depending on sport commitment types (Raedeke, 1997; W.M. Weiss & Weiss, 2003, 2006). W.M. Weiss and Weiss (2003, 2006) found attracted gymnasts perceived little or no obligation from their parents to continue their sport participation, while entrapped and vulnerable gymnasts perceived higher obligation towards their parents to continue. Overall, the role of parent social constraints on sport commitment is still unknown. Inconclusive results with regards to social constraints influence on sport commitment exists, which suggests that future research needs to explore this relationship more closely.

In summary, the sport commitment model provides a theoretical framework in which to explore sport commitment and enjoyment. Past research has indicated higher enjoyment, investments, involvement opportunities, and social support results in higher sport commitment (e.g., Scanlan et al., 2003; Scanlan, Carpenter, Schmidt, et al., 1993), whereas higher attractive alternatives leads to lower sport commitment (e.g., Carpenter & Coleman, 1998). Social constraints have shown a variety of results: positive (e.g., Carpenter, 1992), negative (e.g., W.M. Weiss & Weiss, 2007), while others have shown no influence (e.g., Scanlan, Carpenter, Schmidt, et al., 1993) on sport commitment. Additionally, parent influence is a growing topic of interest within the sport domain. Children may perceive their parents’ attitudes and behaviors as social support and/or as pressure. However, the majority of research has only explored the role of parent social support and social constraints from the athletes’ perspective. Future research should examine these constructs from not only the athletes’ perspective, but also the parents’ perceptions of their own behaviors.
For example, Babkes and Weiss (1999) examined youth soccer players’ perceptions of parent behaviors and attitudes along with their perceptions of their own competence, enjoyment, and intrinsic motivation. Additionally, parents reported their own behaviors and attitudes about their child’s soccer participation. Children’s perceptions of parental behaviors and attitudes were strongly related to their own enjoyment, intrinsic motivation, and perceived soccer competence. However, parents reported behaviors and attitudes did not relate to their child’s perceptions or reported enjoyment, intrinsic motivation, and competence. Similar findings and relationships could exist between parental beliefs and those of their children with regard to sport commitment constructs.

**Purpose of the Study**

The purpose of this study is to explore the relationship between the parents’ and athletes’ perceptions of sport commitment, enjoyment, perceived costs and benefits, personal investments, social constraints, social support, and utility value.

**Significance of the Study**

The proposed study is significant for several reasons. First, the majority of studies using the sport commitment model have examined athletes’ perceptions of parent support and constraints. To date, no studies have investigated parents’ perceptions of sport commitment constructs and the relationship between parent perceptions and those of their children. Using Harter’s competence motivation theory, Babkes and Weiss (1999) examined children’s perceptions of parental influence. This study focused on how parents alone influenced their children’s motivation in sport. Findings revealed that
children who perceived their parents as exercise role models, having more positive beliefs about their competency, and gave positive responses to performance successes, were more likely to have higher perceived competence, enjoyment, and intrinsic motivation. Similar relationships may also exist between parental beliefs and children’s beliefs on sport commitment constructs.

Second, previous research suggests examining parental perceptions (e.g., support, pressure) and their children’s motivation in the sport domain. M.R. Weiss and Ferrer-Caja (2002) suggested social constraints may cause anxiety and stress, which in turn could influence sport commitment. On the other hand, social support and recognition from parents are consistently found as sources of enjoyment (Scanlan, Carpenter, Lobel, & Simons, 1993), therefore potentially increasing sport commitment (M.R. Weiss & Ferrer-Caja, 2002).

Third, Brustad (1992) suggested researchers need to examine parental beliefs, values, attitudes, and expectancies regarding their children’s sport experiences. Parents are a major part of youth’s sport experience, however little research has been obtained from parents. Parents may be a key factor in young athletes’ perceptions and motivational behaviors. Babkes and Weiss (1999) took Brustad’s (1992) advice and examined the relationship between children’s perceptions and their parents’ attitudes and behaviors in sport. Results indicated the children’s enjoyment, motivation, and perceived soccer competence were strongly related to the children’s perceptions of the parental attitudes and behaviors, rather than the reported parental attitudes and behaviors.
Therefore, this study was designed to examine parental perceptions of their own sport commitment and whether the parental perceptions predict the children's perceptions. This study will add to the research on parents' and children's perceptions in the sport domain and open opportunities for further research. Understanding parental influences on children's sport commitment is imperative because parents are key components to children's sport experiences and may influence children's perceptions of their own sport experiences.

**Delimitations**

This study was delimited to:

1. 283 volunteer, female competitive gymnasts and 283 parents.
2. Gymnasts were competing in levels 4-10.
3. Gymnasts were between the ages of 8 and 17 years.
4. Self-report questionnaires designed by the researcher to determine sport commitment, sport enjoyment, perceived costs, perceived benefits, personal investments, social constraints, social support, and utility value.

**Limitations**

The following limitation was identified for this study:

1. Participants were selected from gyms across the Midwest and may not reflect the total population of competitive gymnasts.
Assumptions

The study was conducted under the following assumptions:

1. All of the participants completed the questionnaires honestly and accurately.
2. The questionnaire was a valid and reliable measure of sport commitment, sport enjoyment, perceived costs, perceived benefits, personal investments, social constraints, social support, and utility value.
3. All participants understood the questionnaire items.

Research Questions

1. What is the relationship between parents’ and gymnasts’ perceptions on sport commitment model constructs?
2. Which parent beliefs on sport commitment constructs predict gymnasts’ level of sport commitment?
3. Which parental perceptions of social constraints and support (i.e., companionship, instrumental aid, intimacy, admiration, and reliable alliance) predict gymnasts’ level of sport commitment?
4. Do parent beliefs on sport commitment constructs differ depending on their daughters’ competitive level?
5. Do parent beliefs on social constraints and social support (i.e., companionship, instrumental aid, intimacy, admiration, and reliable alliance) differ depending on their daughters’ competitive level?
6. Which parent beliefs of sport commitment constructs predict gymnasts’ level of sport commitment based on competitive level?
Definition of Terms

Sport Commitment: “A psychological construct representing the desire and resolve to continue sport participation” (Scanlan, Carpenter, Schmidt, et al., 1993, p. 6).

Perceived Costs: The potential negative outcomes associated with one’s competitive sport participation.

Perceived Benefits: The potential positive aspects associated with one’s competitive sport participation.

Personal Investments: What a person has put into his or her sport participation which cannot be returned once participation is terminated, such as money, effort, time, and energy.

Social Constraints: The perceived obligation to others to continue competitive sport participation.

Social Support: The positive encouragement from others to continue competitive sport participation.

Utility Value: The perceived usefulness gained from competitive sport participation, which may be helpful with later goals.

Companionship: “The social integration and sharing of experience” (Furman & Buhrmester, 1985, p. 1017).

Admiration: “The affirmation of one’s competence or value” (Furman & Buhrmester, 1985, p. 1017).

Reliable Alliance: “A last and dependable bond, though not necessarily an emotional one” (Furman & Buhrmester, 1985, p. 1017).
Intimacy: “The opportunity for nurturance or taking care of another” (Furman & Buhrmester, 1985, p. 1017).

Instrumental Aid: “Guidance, tangible aid, and advice from another person” (Furman & Buhrmester, 1985, p. 1017).
Motivating athletes to become involved and continue participation in sport has long been a topic of interest. Scanlan, Carpenter, Schmidt, et al. (1993) introduced the sport commitment model, which was developed specifically for the physical domain to help explain and predict continued motivation in sport. Despite the relatively recent creation of the model, considerable research has explored sport commitment and its' predictors in sport contexts (e.g., Carpenter & Scanlan, 1998; W.M. Weiss & Weiss, 2003, 2006). One of the strengths of the model is that it incorporates several well known predictors of motivation: enjoyment, benefits, and social influence (M.R. Weiss & Ferrer-Caja, 2002). For the current study, social influences and their specific role in sport commitment will be examined. First, an introduction to the model and early research will be discussed. Second, the role of social influence (i.e., parents) on sport motivation and participation will be reviewed. Lastly, the influence of important others on an athlete's choice to continue or terminate sport participation will be discussed.

**Sport Commitment Model**

Scanlan, Carpenter, Schmidt, et al. (1993) defined sport commitment as “a psychological state representing the desire and resolve to continue sport participation” (p. 6). The original model of sport commitment hypothesized that five constructs could predict whether a person would continue in sport or not, with each construct positively or negatively influencing the level of sport commitment: enjoyment, involvement
opportunities, personal investments, attractive alternatives, and social constraints. Later, Scanlan et al. (2003) added a sixth predictor to the model, social support.

*Enjoyment* or the fun and pleasure from participation, was hypothesized to have a positive relationship with sport commitment (Scanlan, Carpenter, Schmidt, et al., 1993). Based on past participation motivation research (M.R. Weiss & Petlichkoff, 1989), Scanlan and colleagues thought enjoyment would play a central role in how committed athletes' are to their sport participation. *Personal investments*, such as time, energy, effort, and money, are put into participation and cannot be returned if one were to discontinue. Investments are also hypothesized to have a positive relationship with sport commitment (Scanlan, Carpenter, Schmidt, et al., 1993). *Attractive alternatives* are other opportunities, or activities that may look better or would be more fun than the current sport or activity. For example, a job, other sports, being with friends, or having more free time may compete with one's current sport activity for an individual's time, attention, and energy. Thus, attractive alternatives were hypothesized to have a negative relationship with sport commitment (Scanlan, Carpenter, Schmidt, et al., 1993). The next component is *involvement opportunities* or the benefits and good things that come from participation, such as rewards, being in shape, status, scholarships, or traveling. Scanlan and colleagues hypothesized that as involvement opportunities increased, sport commitment would also increase (Scanlan, Carpenter, Schmidt et al., 1993).

Two constructs or predictors of sport commitment represent social influences. First, *social constraints* is the perceived obligation to others to continue participation. Sources of social constraints could be parents, coaches, teachers, or friends. Higher
social constraints were hypothesized to result in higher sport commitment (Scanlan, Carpenter, Schmidt, et al., 1993). Second, *social support* represents the opposite of social constraints; this is the encouragement from others to continue participation. Higher perceptions of social support are predicted to lead to higher sport commitment (Scanlan et al., 2003).

In a series of studies, Scanlan and colleagues set out to test the theoretical framework of the newly developed sport commitment model (Carpenter, Scanlan, Simons, & Lobel, 1993; Scanlan, Carpenter, Schmidt, et al., 1993; Scanlan, Simons, Carpenter, Schmidt, & Keeler, 1993). In their first study, they recruited 178 boys and girls who were currently playing softball or baseball (Scanlan, Carpenter, Schmidt, et al., 1993). Participants completed surveys during midseason. Results indicated that higher sport enjoyment, personal investments, and involvement opportunities were significantly related to greater sport commitment, whereas social constraints failed to be a significant predictor. Results partially supported the hypothesized relationships in the sport commitment model. One explanation given for the non-significant influence of social constraints was the participants may have perceived little pressure to continue participation due to their age and/or competitive level (Scanlan, Carpenter, Schmidt, et al., 1993). This study set a framework for future researchers to investigate athletes’ determination to continue sport.

In their second study, Scanlan, Simons et al. (1993) developed a reliable measure for testing the sport commitment model. Three diverse samples of males and females, ages 9 to 19 years, were used to test the reliability of the measures. Each sample
represented one phase of the study. The first phase was used to initially test the measures, the second phase was a replication and extension of phase one, and the last phase was used to evaluate the modified items with a large sample of athletes.

The initial phase evaluated the items for measuring sport commitment (Scanlan, Simons et al., 1993) with 140 male and female athletes. Five of the six scales were found reliable: sport commitment, sport enjoyment, involvement alternatives, social constraints, and involvement opportunities. Personal investments failed to demonstrate adequate reliability because athletes reported low investments of their own money. However, athletes did report investing a large amount of time and energy into their sport.

Although the involvement alternatives scale was found reliable, Scanlan, Simons et al. (1993) felt the items did not accurately represent the construct as originally defined. Therefore, they modified the scale and edited the instructions to help the athletes understand the definition of involvement alternatives. Scanlan, Simons et al. (1993) generated the second phase to replicate the first phase and evaluate the modified version of the involvement alternatives scales. Phase two consisted of 178 male and female athletes. Sport commitment, sport enjoyment, social constraints, and involvement opportunities were found reliable. Again, involvement alternatives and personal investments were deemed unreliable. If the money item was removed from the personal investments scale, reliability increased. Involvement alternatives still caused problems for the athletes. Scanlan and colleagues speculated that the athletes did not grasp the concept or the true meaning of alternative activities conflicting with their current sport activity.
Finally, the last phase of this study evaluated the modified items with a large sample. Scanlan, Simons et al. (1993) recruited 1,342 athletes to participate in phase three. Once again sport commitment, sport enjoyment, social constraints, and involvement opportunity items were found to be reliable measures. Involvement alternatives and personal investments scales still demonstrated reliability problems.

Overall, sport commitment, sport enjoyment, social constraints, and involvement opportunities were found to be reliable measures, while involvement alternatives and personal investments scales were problematic. An explanation given for these findings suggested that the sample groups were children, and they may not have understood the meaning of the concept of alternative activities which compete with their current activity. As for personal investment, children typically do not invest their own money into their sport participation, therefore will not report high money investments, which in turn would affect the reliability of the scale.

Lastly, Carpenter et al. (1993) conducted a third study which used structural equation modeling to test the sport commitment model’s viability. There were 1,342 male and female athletes, involved in football, soccer, and volleyball. The participants were between the ages of 10 to 19 years. Sport commitment, enjoyment, personal investments, involvement opportunities, and social constraints were included in the model testing, however due to measurement problems with involvement alternatives this construct was not included in further analyses. Results indicated higher enjoyment, involvement opportunities, and personal investments were related to higher sport commitment. These three constructs were the strongest predictors of sport commitment.
Additionally, social constraints were negatively related to sport commitment, in that higher social constraints resulted in lower sport commitment. Recall that original predictions suggested that social constraints would be positively related to sport commitment (Scanlan, Carpenter, Schmidt, et al., 1993). An explanation for the negative relationship between social constraints and sport commitment could be that most young athletes do not feel as though they have to continue in their sport participation. That is, most youth sport participants are involved because they want to.

Since these early tests of the sport commitment model, research has continued to explore the relationship between the predictors and sport commitment (Carpenter & Coleman, 1998; Carpenter & Scanlan, 1998; M.R. Weiss et al., 2001; W.M. Weiss & Weiss, 2007). Additionally, two studies attempted to examine both changes in sport commitment and predictors of sport commitment over time (Carpenter & Coleman, 1998; Carpenter & Scanlan, 1998). Carpenter and Scanlan (1998) were interested in changes in the predictors over time, and if these changes were related to changes in commitment. A total of 103 male and female high school soccer players completed two assessments at midseason and the end of the season. Results indicated as perceived involvement opportunities continued to increase over time, sport commitment also continued to increase. Social constraints had a significant negative relationship with commitment. In fact, increases in social constraints lead to decreases in commitment. Interestingly, changes in enjoyment did not predict changes in commitment, however, enjoyment and commitment were highly correlated. A potential explanation for this finding was that the
athletes' enjoyment levels were already extremely high (4.5+ on a 5-point scale) at their first assessment, which leaves little room for increases in enjoyment.

Carpenter and Coleman (1998) also examined changes in the predictors and sport commitment over time with a sample of elite youth cricketers. A total of 78 young male elite cricketers ranging in age from 9 to 17 years participated. Two questionnaires were administered throughout the season, one at the beginning and one shortly before the conclusion of the season. Findings indicated there were changes over time in both the predictors and commitment. Positive changes in sport enjoyment, recognition opportunities, and social opportunities were significantly related to positive changes in sport commitment. Changes over time in negative affect, involvement alternatives, social support, and social constraints were all non-significant predictors of changes in sport commitment.

Another line of research has suggested possible alternative models of sport commitment (M.R. Weiss & Ferrer-Caja, 2002; M.R. Weiss et al., 2001). That is, perhaps sport enjoyment may serve as a mediator between the other predictors and sport commitment. Past research has shown several sources of enjoyment including accomplishments and social influence (Scanlan, Carpenter, Lobel, et al., 1993). These constructs could be represented by the social constraints, social support, and involvement opportunity predictors of sport commitment. Additionally, enjoyment has emerged as the strongest predictor of sport commitment, particularly due to the high correlation between enjoyment and sport commitment (Scanlan, Carpenter, Schmidt, et al., 1993; W.M. Weiss
& Weiss, 2003). Due to this multicollinearity, perhaps enjoyment is masking the influence of the other predictors.

Therefore, M.R. Weiss et al. (2001) set out to compare a mediational model of sport commitment to the original model. A total of 198 youth tennis players between the ages of 10 and 18 years were recruited to participate. Results using the original sport commitment model showed that higher perceptions of enjoyment, personal investments, and social constraints along with lower attractive alternatives were related to a higher commitment to continue tennis participation. Sport enjoyment was the strongest predictor, with the other constructs having much less influence on sport commitment. The mediated model showed similar results, where sport enjoyment was the strongest predictor. Personal investments and attractive alternatives were related to sport commitment, and were also significant predictors of enjoyment. M.R. Weiss et al. (2001) suggested continuing research on mediational models, focusing on ways to enhance athletes' enjoyment in the sport domain in hopes of increasing athletes' sport commitment. For example, lower pressure from significant others (i.e., social constraints), or increasing emotional energy, effort, and time (i.e., investments) and increasing encouragement from important others (i.e., social support) could lead to greater enjoyment, and ultimately greater sport commitment.

Additional constructs have also been added to the sport commitment model. For example, Carpenter (1992) and M.R. Weiss et al. (2001) tested perceived competence as a potential predictor of sport commitment. However, perceived competence was found unreliable with a sample of adolescent tennis players (M.R. Weiss et al., 2001) and failed...
to demonstrate significant findings with a group of adolescent athletes (Carpenter, 1992). W.M. Weiss and Weiss (2007) added perceived costs to the sport commitment model to represent the "downsides" to participating in sport. Perceived costs was a significant predictor of sport commitment with a group of female gymnasts. Perhaps other important constructs may also play a role in sport commitment. For example, utility value or the perceived usefulness of an activity could influence an athlete's decision to continue or discontinue their sport participation.

Utility value is the perceived usefulness gained from sport participation which may help an athlete achieve future goals. Eccles et al. (1983) created a general model of achievement behaviors and activity choice. The model suggests there are two determinants of achievement behaviors, expectancies for success and subjective task value. Task value includes: attainment, interest, utility value, and cost. Eccles et al. (1983) found as children grew older attainment and utility value were predictors of their achievement behavior. Cox and Whaley (2004) explored expectancies for success and subjective task value (attainment, interest, utility value, and cost) and found both determinants predicted the athletes' effort and persistence. Thus, if utility value is a predictor of an athletes' effort and persistence in the sport domain, it may also be a predictor of an athletes' sport commitment.

Despite the growing body of research on sport commitment, the majority of research has not examined differences based on age and/or competitive level. The previous studies examined change over time in the sport commitment model (Carpenter & Coleman, 1998; Carpenter & Scanlan, 1998), however did not specify the age and
W.M. Weiss and Weiss (2007) examined developmental differences for predictors of sport commitment, in regards to age and competitive level differences with female gymnasts. The gymnasts in the study were between ages 8 and 18 years and competed in levels 5 through 10. As with many other research findings, sport enjoyment was the strongest predictor of sport commitment (W.M. Weiss & Weiss, 2007). Once again, enjoyment was strongly correlated with commitment, thus masking the influence of other predictors. Therefore, enjoyment was removed from further analyses to determine the role of the other constructs (M.R. Weiss et al., 2001).

Findings revealed that for gymnasts ages 8 to 11 years old, investments positively predicted and costs negatively predicted commitment. However, for 11 to 14 year old gymnasts, investments and teammate social constraints had a positive influence, while parent social constraints and costs were negative influences on their sport commitment. Lastly, investments positively influenced, while costs negatively affected sport commitment with gymnasts ages 14 to 18 years old (W.M. Weiss & Weiss, 2007). As for similarity between the three age groups, perceived costs emerged as a consistent predictor of sport commitment.

Another way of tapping developmental differences is via competitive level. For lower competitive level gymnasts, findings revealed personal investments, coach social support, and best friend and teammate social constraints were positively related to commitment, whereas perceived costs and perceived constraints from the coach were negatively related to sport commitment (W.M. Weiss & Weiss, 2007). For higher competitive level gymnasts, personal investments and teammate social constraints were
positively related to commitment, while costs were negatively related to sport commitment. Throughout all competitive levels, again perceived costs were consistently related to sport commitment.

A consistent trend throughout findings for both age and competitive level was gymnasts' perceptions of costs (W.M. Weiss & Weiss, 2007). Enjoyment was higher for younger and lower level gymnasts, whereas older and higher level gymnasts reported lower enjoyment. Social support had a tendency to stay consistent between age and competitive level. Younger and lower level gymnasts reported higher parental support, and tended to rely more heavily on their parents for information.

In general, research on the sport commitment model has indicated enjoyment as the strongest predictor of sport commitment (Scanlan, Carpenter, Schmidt, et al., 1993; M.R. Weiss & Ferrer-Caja, 2002; W.M. Weiss & Weiss, 2007). Enjoyment may also serve as a mediator between the predictors and sport commitment (M.R. Weiss et al., 2001; W.M. Weiss & Weiss, 2007). Higher personal investments and involvement opportunities will increase sport commitment (Scanlan, Carpenter, Schmidt, et al., 1993), however, social constraints may have a positive (Carpenter, 1992; W.M. Weiss & Weiss, 2007), negative (W.M. Weiss & Weiss, 2007), or no influence (Scanlan, Carpenter, Schmidt, et al., 1993) on sport commitment. Attractive alternatives is the only construct in the model to consistently show a negative influence on sport commitment (M.R. Weiss & Ferrer-Caja, 2002). Additionally both age and competitive level differences exist with regards to the salient predictors of sport commitment (W.M. Weiss & Weiss, 2007).
Another way that sport commitment has been examined is to profile athletes into different types of sport commitment. That is, based on athletes reported perceptions on sport commitment constructs, profiles are developed that represent different types of commitment: want to vs. have to vs. low committed (Raedeke, 1997; Schmidt & Stein, 1991; W.M. Weiss & Weiss, 2003, 2006).

Types of Sport Commitment

Schmidt and Stein (1991) theorized that athletes continue to participate for different reasons. First, some athletes participate due to enjoyment and attraction toward their sport. These athletes are characterized by perceiving higher rewards or benefits (i.e., involvement opportunities), satisfaction (i.e., enjoyment), and investments, along with lower costs (e.g., social constraints) and alternatives. Thus, these athletes could represent a type of commitment, attraction-based commitment. That is, these athletes continue to participate because the positives far outweigh the negatives. A second type of commitment, theorized by Schmidt and Stein, or reason for continued participation is entrapment-based commitment. These athletes are characterized by higher costs and investments, but lower rewards, enjoyment, and attractive alternatives. These athletes stay in sport because they have already invested a lot of time, effort, and energy, and other activities do not seem like a viable option. The last type of commitment theorized by Schmidt and Stein is low commitment athletes. These athletes are most likely to terminate their sport participation. Characteristics of low committed athletes are: increasing costs and alternatives, and decreasing benefits, satisfaction and investments. Therefore, these athletes have an easier time leaving their sport because they perceive
lower amounts of fun and pleasure and time invested along with more activities which compete with their current participation.

Some studies have tested Schmidt and Stein’s (1991) predictions in the sport domain (Raedeke, 1997; W.M. Weiss & Weiss, 2003, 2006). Raedeke (1997) explored if different sport commitment types existed with a sample of competitive swimmers. Swimmers were profiled based on their reported scores: enjoyment, benefits, costs, personal investments, attractive alternatives, social constraints, unidimensional identity, and perceived control. These profiles were then compared on three burnout dimensions.

Four types or groups of sport commitment emerged: malcontented, enthusiastic, obligated, and indifferent swimmers. Malcontented swimmers had the most negative perceptions of their involvement of all their peers. This group reported lower enjoyment, benefits, and investments, with higher costs and attractive alternatives. The profile of this swimmer was similar to Schmidt and Stein’s (1991) entrapped athlete. Enthusiastic swimmers had positive experiences in their participation and were similar to attracted athletes. The characteristics of the enthusiastic swimmers were higher enjoyment, benefits, and high investments, with lower costs and attractive alternatives. The third group to emerge was obligated swimmers, this group was not as negative as the malcontented swimmers, but were also similar to Schmidt and Stein’s (1991) entrapped athletes. Obligated swimmers were characterized by average enjoyment, benefits, and attractive alternatives and higher costs, and social constraints. Lastly, indifferent swimmers were characterized by lower enjoyment, investments, benefits, costs and
attractive alternatives. Indifferent swimmers were most similar to Schmidt and Stein's (1991) low commitment athletes.

In regards to burnout rates, as would be predicted, the malcontented swimmers reported the highest burnout rate (Raedeke, 1997). This group of athletes experienced higher physical and emotional exhaustion than the other three groups of athletes. In contrast, enthusiastic swimmers had the lowest reported burnout scores which could be due to positive benefits from participation and enjoyment of their swimming (Raedeke, 1997). Obligated and indifferent swimmers reported average scores for the three burnout dimensions.

W.M. Weiss and Weiss (2003, 2006) replicated and extended Raedeke’s (1997) research on sport commitment types. In their first study, a total of 124 female gymnasts competing at levels 9, 10, and elite participated. This sample was selected because gymnastics has extensive physical, emotional, and psychological demands which require a high amount of commitment.

Findings revealed three types of athletes: attracted, entrapped, and vulnerable. Attracted gymnasts reported positive perceptions of their sport experiences. This group of gymnasts was characterized by higher enjoyment, benefits, and investments, along with lower costs and attractive alternatives. This group of gymnasts most resembles Raedeke’s (1997) “enthusiastic swimmers,” and is similar to Schmidt and Stein’s (1991) theoretical predictions. The second group to emerge was entrapped athletes, or gymnasts who perceived their competitive experience in a negative way. These gymnasts reported lower enjoyment and benefits, while experiencing higher costs, investments, and
attractive alternatives. This group of gymnasts was similar to both Raedeke’s (1997) “malcontented swimmer,” and Schmidt and Stein’s (1991) predictions of entrapped athletes. The last group to emerge was vulnerable athletes. These athletes were characterized by moderately lower enjoyment and benefits, average costs and moderately higher attractive alternatives, and high investments. This set of gymnasts most resembled the “obligated swimmers” reported by Raedeke’s (1997), however, vulnerable gymnasts did not perceive their competitive experience as negative. Vulnerable gymnasts perceived the positive aspects of sport similar to that of attracted gymnasts, but also perceived the negative aspects of sport similar to the entrapped gymnasts. Thus, these athletes may be in a time of transition, weighing the pros and cons of their gymnastics participation.

W.M. Weiss and Weiss (2003) then compared these three types of commitment on social influence, motivation orientation, and training behaviors. Attracted gymnasts reported higher social support from parents and coaches, and lower perceived obligation to continue and amotivation than the other two groups of gymnasts. Coaches also reported higher positive training behaviors for this group of gymnasts. Entrapped gymnasts reported higher amotivation and obligation to their parents to continue participation, and lower intrinsic motivation and perceived social support from their parents and coaches than attracted gymnasts. Coaches reported this group of athletes as having the lowest training behaviors. Lastly, vulnerable gymnasts reported higher obligation to teammates to continue participation, higher parental social constraints, intrinsic motivation, and amotivation than attracted gymnasts.
In a follow-up study, W.M. Weiss and Weiss (2006) examined gymnasts' commitment and changes over time towards their dedication. One year after their first assessment, W.M. Weiss and Weiss (2006) recruited the same gymnasts in order to assess changes in the gymnasts' commitment, and if any of the athletes' commitment types had changed from attracted, entrapped, vulnerable, or whether the gymnasts had quit the sport all together. Results indicated after one year, 86% of the gymnasts were still competing, which shows a strong commitment among the athletes. One third of the gymnasts still competing were classified as a different type of commitment compared to time one. Again, attracted gymnasts reported greater social support from parents and coaches, whereas entrapped gymnasts perceived higher social constraints from parents and teammates. The majority of the gymnasts who dropped out of their sport were previously entrapped gymnasts. In general, vulnerable and entrapped profiles tended to be more likely to experience commitment changes compared to attracted gymnasts.

In summary, different types of sport commitment exist (Raedeke, 1997; Schmidt & Stein, 1991, W.M. Weiss & Weiss, 2006) while change over time seems to occur in regards to type of commitment (W.M. Weiss & Weiss, 2006). Personal factors such as enjoyment, investments, and benefits along with environmental factors play a role in predicting sport commitment. Social factors such as parents, teammates, and coaches seem to also influence an athlete's sport commitment.

One area that should be explored further is the role of significant others on sport commitment. Limited research has explored the relative influence of important others via social constraints (e.g., Carpenter & Scanlan, 1998; Scanlan, Carpenter, Schmidt, et al.,
1993; Scanlan, Simons et al., 1993; M.R. Weiss et al., 2001) and social support (e.g., Carpenter, 1992; Carpenter & Coleman; 1998; W.M. Weiss & Weiss, 2007). A difference in sport commitment types and social influence has also been tapped (W.M. Weiss & Weiss, 2003, 2006, 2007). However, many of these studies have produced inconclusive results (Scanlan, Carpenter, Schmidt, et al., 1993) or mixed results (e.g., Carpenter, 1992; W.M. Weiss & Weiss, 2007) concerning the role of social constraints and social support.

The role of significant others in motivation has long been established (M.R. Weiss & Ferrer-Caja, 2002). Research has explored the role of parents (e.g., Babkes & Weiss 1999; Brown et al., 1989; Leff & Hoyle, 1995), coaches (e.g., Smith et al., 1995; Smoll et al., 1993), and peers (e.g., Patrick et al., 1999; Ullrich-French & Smith, 2006) on influencing individuals' motivation to continue, self-perceptions, and enjoyment. Social influence can either negatively or positively influence young athletes' motivation. The following sections will address two types of social influence: social constraints and social support. In particular, the role of parents is of key interest in relation to young athletes' sport participation experiences.

**Social Influences**

Social influences, such as parents, peers, teammates and coaches can either have a positive or negative affect on athletes' commitment (e.g., Leff & Hoyle, 1995; Patrick et al., 1999). One way of examining social influence is via social constraints or social support. Parents are key in socializing their children into sport, and are perceived by their child as a positive or negative influence which may affect their level of sport
commitment. Parental pressure and support have been examined in various sport settings. Athletes and parents perceive parental pressure and support differently (DeFrancesco & Johnson, 1997), and this may affect the athletes' level of sport commitment. The next section examines the influence of social constraints or pressure on athletes' sport participation.

**Parent Social Constraints**

DeFrancesco and Johnson (1997) examined athletes' and parents' perceptions regarding the importance of winning and losing in a sport setting. Athletes reported winning as very important to them. Parents were unaware of the influence winning had on the athletes' emotions. The majority of the athletes reported they had embarrassed themselves at one point or another during competition, and one third of the participating athletes had reported their parents embarrassed them at one point or another during a competition. Yelling and leaving the competition were the most frequently reported negative behaviors of parents with some parents going as far as hitting their children. Overall, the athletes' perceived their parents' behaviors as embarrassing, whereas not all parents' perceived their own behaviors this way.

Hellstedt (1990) also explored perceptions of parental pressure with a group of adolescent male and female ski racers. Results indicated a majority of the adolescents perceived moderate to high levels of parental pressure with only a fraction of the group perceiving parental pressure as a negative. However, the group who experienced negative pressure worried about their parents' responses when they were performing
poorly. Of the participating athletes, 26% felt their parents made them compete. These athletes were partially motivated to continue participation solely to please their parents.

Athletes who perceived lower levels of parental pressure had more positive sport experiences, while perceptions of higher levels of parental pressure were related to more negative sport experiences (Hellstedt, 1990). Athletes that reported perceptions of negative behaviors from significant others also reported lower enjoyment for sport participation (Ommundsen & Vaglum, 1991; W.M. Weiss & Weiss, 2006). Pressuring parents run the risk of causing their athletes' to have negative emotions toward participating in sport, and may cause conflict and/or discontinuation in sport (Hellstedt, 1990). Conflict between athletes and parents cause athletes to feel stressed and may influence their sport performance (Ullrich-French & Smith, 2006). Athletes may also feel stressed by their parents with their high expectations and/or negative evaluations (M.R. Weiss, Wiese, & Klint, 1989).

Sport participation involves time, effort, energy, and money from both the parents and athletes. Most athletes are aware of their parents' commitment towards their sport participation. Coakley (1992) interviewed 15 adolescent athletes who had experienced burnout, and the majority of the athletes discussed the importance of pleasing their parents and living up to their expectations. Being successful made their parents happy, so the athletes did not want to disappoint their parents by failing. Perceptions of negative pressure from parents may play a role in burnout or discontinuation of sport participation (Gould, Tuffey, Udry, & Loehr, 1996). Athletes' may perceive negative parental
influences, such as negative evaluations, high expectations, and athletes’ may see their parents as too controlling in the sport setting (Gould et al., 1996).

Parental pressure has also been examined using the sport commitment model via social constraints, the perceived obligation from significant others to continue sport participation (e.g., Scanlan, Carpenter, Schmidt, et al., 1993). Scanlan and colleagues (1993) predicted higher social constraints would increase sport commitment, however, previous research has shown mixed results regarding social constraints. Findings have revealed social constraints may have a positive (Carpenter, 1992; W.M. Weiss & Weiss, 2007), negative (e.g., W.M. Weiss & Weiss, 2007), or no influence (Scanlan, Carpenter, Schmidt et al., 1993) on sport commitment.

W.M. Weiss and Weiss (2006, 2007) examined the sport commitment model with a group of female gymnasts. First, W.M. Weiss and Weiss (2006) conducted a longitudinal study to explore various commitment types and sport commitment. Findings indicated entrapped gymnasts perceived higher obligation from parents to continue sport participation, whereas attracted gymnasts perceived lower parental social constraints. Second, W.M. Weiss and Weiss (2007) examined age and developmental differences with a group of female gymnasts. Gymnasts ages 8 to 14.5 years, reported higher parent social constraints which were related to lower sport commitment. Thus, higher perceptions of obligation to continue sport participation from their parents resulted in lower sport commitment. On the flip side, M. R. Weiss et al. (2001) examined sport commitment with a group of junior tennis players and found athletes who perceived higher enjoyment, investments, and social constraints reported being more determined to
continue participating in tennis. Thus, parent, coach, and teammate constraints influenced athletes to become more dedicated to their sport participation.

Results have concluded social constrains may in fact have an impact on athletes’ level of sport commitment (M.R. Weiss et al., 2001; W.M. Weiss & Weiss, 2006, 2007), and other studies have explored the various effects of parental pressure on young athletes. Once again, findings have demonstrated a variety of outcomes with some athletes perceiving pressure positively while others perceive parental pressure negatively. Parents may also be viewed by athletes’ as a source of social support by encouraging athletes to continue sport participation. The following section examines parents as being encouraging or supportive.

**Parent Social Support**

Social support, more specifically, parental support has been shown to increase athletes’ overall sport experiences (e.g., Averill, & Power, 1995; Brown, 1985; W.M. Weiss & Weiss, 2006). Athletes’ who have supportive parents tend to report higher sport enjoyment (Averill & Power, 1995). Athletes’ who perceived support or encouragement from their parents tended to have the essential tools to help cope with problems or situations that may arise during sport participation (Van Yperen, 1998). Power and Woolger (1994) explored parent practices with young male and female competitive swimmers. Both mothers and fathers completed self-report questionnaires. Results indicated that children who had supportive parents who gave instruction tended to show more excitement towards their competitive swimming.
Parents may play a different role depending on the age of their child (Côté, 1999). Côté (1999) examined families and their young athletes’ throughout their development in sport. Fifteen people from four different families participated in this study. Findings revealed three different stages: sampling years (6 – 13 years), specialization years (13 -15 years), and investment years (around 15 years) that an athlete will go through during their sport experiences. Parents have different roles in each one of these stages of an athletes’ sport experience.

In the sampling years parents play the leadership role, they are responsible for introducing a variety of sport experiences and help their children enjoy different activities. One of the most important priorities is to have fun and enjoy the sport. During the specializing years, parents transition into a supporter role, and allow the children to narrow down their sport activities. The final stage is the investment years, during this time parents take on the role of the follower and supporter. By this time parents begin to invest in their child’s sport and make sacrifices to allow their athlete to properly train. During all these stages the parents in this study did not pressure their children, however they tried to be supportive and create environments conducive to learning. Thus, parents may take on different roles depending on the age of their child.

In a review of previous research, M.R. Weiss, Amorose, and Allen (2000) examined the experiences of high-level female athletes in competitive sports. One consistent theme was the importance of enjoyment in sport with high level athletes. Thus, an implication suggested the importance of emphasizing encouragement and positive regard from significant others over pressuring or obligating athletes’ to continue sport
participation. Literature supports the idea of emphasizing social support over social constraints (Raedeke, 1997). Raedeke (1997) studied athlete burnout with a group of swimmers. Findings revealed athletes who displayed signs of entrapment tended to have higher burnout rates, and perceived higher social constraints and lower perceived control. Therefore, entrapped swimmers felt obligated to continue participation in competitive swimming and felt they had little control over their involvement. On the flip side, enthusiastic swimmers felt they had higher control and moderately lower social constraints. Thus, these swimmers felt in control of their swimming involvement and felt little obligation to continue swimming from significant others.

W. M. Weiss and Weiss (2003) examined different commitment types and the role of social influence. Entrapped gymnasts felt lower parent social support compared to attracted gymnasts. W. M. Weiss and Weiss (2006) conducted a one-year follow-up on their previous study with female gymnasts, and similar results were found concerning attracted and entrapped gymnasts and parent social support.

Findings have revealed social support as having a positive influence on athletes' sport experiences (e.g., Averill, & Power, 1995; W.M. Weiss & Weiss, 2006). Athletes who perceived higher parental social support tend to enjoy and show more enthusiasm toward their sport (Averill & Power, 1995; Power & Woolger, 1994). Attracted athletes tended to report higher parental social support and enjoyment compared to entrapped athletes who reported higher parental social constraints (Raedeke, 1997; W.M. Weiss & Weiss, 2003, 2006).
In summary, higher perceptions of enjoyment, personal investments, involvement opportunities, and social support and lower perceptions of attractive alternatives have been shown to increase sport commitment. Social constraints have demonstrated inconclusive results regarding sport commitment. Various types of sport commitment may exist and changes over time may occur in regards to athletes' commitment.

Parents may play various roles during different stages of their children’s sport participation. Parental influence may be perceived as social support or social constraints. Higher perceptions of parental social support have been shown to increase an athletes’ psychological desire and resolve to continue sport participation. While parental social constraints have demonstrated inconclusive results concerning sport commitment.
CHAPTER III

METHODOLOGY

The purpose of this study was to explore the relationship between parents’ perceptions and gymnasts’ beliefs on sport commitment, enjoyment, perceived costs and benefits, personal investments, social constraints, social support, and utility value. This chapter will review the participants, measures, procedures for collecting data, and data analysis.

Research Participants

A total of 460 gymnasts and their parents were invited to participate in this study. Only those who returned completed questionnaires by both the gymnast and the parent were included in this study. A total of 289 female competitive gymnasts completed questionnaires from several gymnastics clubs in the Midwest and New Jersey. Six participants’ responses were later dropped due to incomplete data \((N = 283)\). The gymnasts ranged in age from 8 to 17 years \((M = 11.31, SD = 2.19)\), and were enrolled in grades 2 through 11. Gymnasts were currently competing in Level 4 \((n = 68)\), Level 5 \((n = 51)\), Level 6 \((n = 39)\), Level 7 \((n = 48)\), Level 8 \((n = 30)\), Level 9 \((n = 30)\), and Level 10 \((n = 10)\). Seven gymnasts reported not competing the previous season for various reasons, such as injury.

Gymnasts ranged in the number of hours they trained in and out of season. During the competitive season, gymnasts trained from 1 to 25 hours per week \((M = 14.36, SD = 5.01)\), and in the off-season they trained anywhere from 1 to 28 hours per week \((M = 15.49, SD = 5.49)\). Gymnasts began participating in gymnastics around
the age of four \((M = 4.10, SD = 2.05)\). The participants began competing in gymnastics anywhere between 2 to 14 years \((M = 7.61, SD = 1.73)\). The sample of gymnasts were predominately Caucasian (88.3%), with the remaining participants describing themselves as African-American (2.5%), Hispanic (1.1%), Native American (.7%), Asian-American (4.2%), and Other (3.2%).

A total of 292 parents of the gymnasts returned a completed questionnaire (return rate of 63%). Parent questionnaires were returned by the participants at parent meetings or via mail, 78 questionnaires were returned during parent meetings and 214 were sent back by mail. Of the returned parent questionnaires: 4 did not identify who their daughter was, thus their answers could not be matched with their daughters, and 5 were dropped due to incomplete data, leaving a total of 283. Parents ranged in age from 27 to 59 years \((M = 41.71, SD = 5.09)\). The sample of parents were predominately mothers \((n = 263)\). The sample described themselves as predominately Caucasian (92.9%), while the remaining participants described themselves as African-American (1.4%), Asian-American (2.5%), Native-American (.4%), Hispanic-American (.7%), and Other (1.4%).

Parents reported their highest level of education was from high school \((n = 19)\), college \((n = 186)\), graduate school \((n = 72)\), and other \((n = 1)\). A majority (82.3%) of the parents had prior competitive sport experience, with most participants \((n = 149)\) reporting high school as their highest level of competitive sport. Gymnastics tuition cost ranged from less than $100 to more than $600 per month, with the majority of the parents paying $201-300 per month in tuition.
Measures

Questionnaires were created for both gymnasts and their parents from a variety of scales. For the most part, items were identical for both gymnasts and parents. However, some modifications were made on the parents’ scale to indicate “my/your daughter’s gymnastics.”

Participants were asked to complete a questionnaire designed to assess the following sport commitment constructs: sport commitment, sport enjoyment, perceived costs, perceived benefits, personal investments, social constraints, social support, and utility value. Their parents were also asked to complete a questionnaire designed to assess the parents’ perceptions of sport commitment constructs. All items have been modified to be specific to gymnastics. Both the gymnasts and their parents were asked demographic questions in order to describe both samples.

Both the parent and gymnast questionnaires can be seen in Appendix A. Not all items shown in the gymnast questionnaire was used in the current study, as this is a sub-analysis for a larger study. The order in which the items appear were strategically placed to help the younger gymnasts with the more difficult and conceptual items. Thus, benefits and costs were placed at the beginning of the questionnaire.

Demographics

Gymnasts were asked to answer several demographic questions including: age, competitive level, age they began competing, hours they train each week, and race/ethnicity. Demographic questions for parents included: age, highest level of
education, relationship with gymnast, race/ethnicity, tuition cost per month, and their highest level of participation in competitive sport.

**Sport Commitment**

In order to assess the gymnasts' sport commitment, a set of five questions were used. These questions have been sufficiently tested in other studies (Scanlan, Simons, et al., 1993; W.M. Weiss & Weiss, 2003, 2006, 2007), and have demonstrated adequate reliability with alpha levels ranging from .88 to .91. A 5-point Likert scale was used for the response format ranging from “not at all” to “very much so.” Parent items were modified to assess the parents’ perceptions of their commitment to their daughters’ competitive gymnastics. An example item for parents was “How dedicated are you to your daughter competing in gymnastics?”

**Sport Enjoyment**

Three questions were used to assess gymnasts’ and parents’ sport enjoyment. The questions evaluated the gymnasts' and parents' liking and fun experienced in gymnastics. An example item for gymnasts was “How fun is competitive gymnastics for you?” Items were answered using a 5-point Likert scale ranging from “not at all” to “very much so.” Past research has demonstrated this scale as valid and reliable (Raedeke, 1997; M.R. Weiss et al., 2001; W.M. Weiss & Weiss, 2003, 2006, 2007), with alpha levels ranging from .84 to .90 (e.g., Scanlan, Simons, et al., 1993; M.R. Weiss et al., 2001).

**Perceived Costs**

Parents and gymnasts were first given examples of negative things associated with gymnastics, such as: “training is too boring,” or “trying to live up to expectations of
other people.” The gymnasts and parents were given 4 questions to evaluate their perceptions of costs associated with competitive gymnastics. Each item is anchored on a 5-point Likert scale ranging from “not at all” to “very much so.” Gymnasts and parents were given the same items for costs, an example is “Do you feel there are downsides to being a gymnast?” These items have demonstrated adequate reliability and validity, with alpha levels ranging from .79 to .81 (e.g., Raedeke, 1997; W.M. Weiss & Weiss, 2003, 2006, 2007).

**Perceived Benefits**

Similar to perceived costs, gymnasts and parents were given examples of perceived benefits that are associated with gymnastics: “feeling successful,” or “receiving recognition from others for being a gymnast.” The 4 items were answered using a 5-point Likert scale, ranging from “not at all” to “very much so.” An example item is “How rewarding is gymnastics participation?” Past research has shown adequate reliability and validity for these measures (Raedeke, 1997; W.M. Weiss & Weiss, 2003, 2006), with an alpha level greater than .80.

**Personal Investments**

Gymnasts and their parents answered 5 questions that assessed how much effort, time, energy, money, and oneself they put into competitive gymnastics. An example parent item for personal investments is “How much of yourself have you put into your daughter’s competitive gymnastics?” A 5-point Likert scale ranging from “not at all” to “very much so” was used to evaluate the gymnasts’ and their parents’ personal investments. Reliability and validity have been shown in previous studies (Carpenter et

**Parent Social Constraints**

Perceived parent social constraints was assessed using 5 items, which evaluate the perceived obligation to parents to continue participation. A 5-point Likert response format was used ranging from “not at all true” to “completely true.” Reliability and validity for these items have been shown in past research (Raedeke, 1997; M.R. Weiss et al., 2001; W.M. Weiss & Weiss, 2003, 2006, 2007), with alpha levels ranging from .83 to .87. “I feel I have to be in competitive gymnastics to please my parents,” is an example item gymnasts answered, whereas parents answered “My daughter feels pressure from me to keep participating in competitive gymnastics.”

**Parent Social Support**

Gymnasts and parents were asked to answer 15 items from the Network of Relationships Inventory (Furman & Buhrmester, 1985). The items were designed to tap into the gymnasts’ and parents’ perceived parental support and encouragement. Past research has found these items as reliable and valid (Furman & Buhrmester, 1985; W.M Weiss & Weiss, 2007), with alpha levels ranging from .77 to .83. Gymnasts and parents completed three questions for each type of social support (i.e., companionship, instrumental aid, intimacy, admiration, and reliable alliance). An example of an intimacy item for gymnasts was “How much do you talk about everything with your parents?” An example companionship item for parents was “How much free time do you spend with your daughter outside of practice and competitions?” An instrumental aid item for
gymnasts was “How much do your parents teach you how to do things that you don’t know?” An example of an intimacy item for parents was “How much do you treat your daughter like she is admired and respected?” Lastly, an example of a reliable alliance item for parents was “How sure are you that your relationship will last in spite of fights?” Items were answered using a 5-point Likert scale ranging from “little or none” to “the most.”

Utility Value

Parents and gymnasts were assessed on their perceived utility value or the usefulness of gymnastics participation. The participants answered these items using a Likert scale ranging from 1 to 7 (1 “not at all useful”, 7 “very useful”). “How useful is what your daughter learns through gymnastics for her daily life outside of school?” was an example item for parents. This measure has demonstrated adequate validity and reliability, with an alpha level of .82 (Cox & Whaley, 2004).

Procedures for Collecting Data

Following approval from the Human Participants Review Board, a letter of cooperation was emailed to several gymnastics clubs across the Midwest and New Jersey. This letter sought their permission to conduct this study with gymnasts and their parents. When permission was granted, a date and time was scheduled for the researcher to meet with potential participants. Prior to the scheduled meeting the researcher sent parent packets to participating gyms, and head coaches were asked to distribute the packets to potential gymnasts. The packet included: a letter of invitation to participate and a parental consent form. The gymnasts were asked to return the signed parental consent
form to the coach within one week. The scheduled meeting was then held before, during, or after a practice session to meet with those gymnasts who had returned signed parental consent forms.

At the time of data collection, the researcher gave the instructions, read the assent form aloud, and then reminded all gymnasts that their participation was completely voluntary. Participants were reminded to answer all questions honestly. Coaches, parents, and non-participating athletes were not present while participating gymnasts completed the questionnaire.

Benefits and cost questions were completed as a group with the researcher reading the directions and each item for the gymnasts. After these two sections, gymnasts were allowed to complete the rest of the questionnaire on their own. During and after data collection, the researcher was available to answer any questions and define difficult words. Common problematic terms for gymnasts were “dedicated,” “determined,” “emphasize,” “peers,” and “recognition.” The researchers provided definitions and similar terms to help gymnasts understand the meaning of these words.

Data collection procedures for parents occurred in one of two ways. When possible, a team parents meeting was scheduled at the gymnastics club. At this meeting, the researcher invited parents to participate in this study. Parents were given specific directions for completing the questionnaires. The researcher reminded parents their participation was completely voluntary and could discontinue at any time. Parents were asked to complete one questionnaire per household. If they had more than one daughter competing in gymnastics they were asked to think of the daughter competing at the
higher competitive level. Parents were asked to print their daughter’s name on the cover page of the questionnaire so the researcher would be able to match the correct parent to their gymnast.

If a parent meeting was not possible, then parent questionnaire packets were sent home with participating gymnasts. Each packet included one questionnaire, instructions, and a self-addressed paid postage envelope. The instructions sent home to the parents were the same as those given to parents at the meetings. However, parents mailing questionnaires back were asked not to discuss questions or answers with their daughter until the entire questionnaire was completed. Parents were asked to complete and return questionnaires within two weeks. Gymnast and parent questionnaires were matched together, their names were removed, and then each packet was assigned an identification code.

**Data Analysis**

Following data collection, data was entered using the SPSS statistics program. Preliminary analyses were conducted and included: descriptives, frequencies, and reliabilities for all scales and sub-scales for both gymnasts and parents. Descriptives and frequencies were conducted for the demographic questions of the participants. Gymnast demographic questions included age, grade level, competitive level, hours of practice per week, race/ethnicity, age they started gymnastics, and favorite event. Parent demographic questions were age, level of education, relationship with gymnast, race/ethnicity, tuition costs per month, and sport involvement. Reliabilities were
conducted on all scales. Means were created for each subscale to use in subsequent analyses.

To answer the first research question, correlations were conducted to determine the relationship between the parents’ and the gymnasts’ beliefs on sport commitment constructs: sport commitment, sport enjoyment, perceived costs, perceived benefits, personal investments, social constraints, social support, and utility value. Second, a multiple regression analysis was conducted to determine whether parents’ beliefs (enjoyment, perceived costs, perceived benefits, personal investments, social constraints, and utility value) predicted the gymnasts’ level of sport commitment. These constructs were selected to test the original sport commitment model constructs plus utility value and perceived costs. Parents’ perceptions were the independent variables whereas the gymnasts’ sport commitment was the dependent variable. A second multiple regression was conducted to specifically tap the influence of parental beliefs about social support and constraints on gymnasts’ sport commitment. These constructs were selected to specifically explore the influence of parental beliefs on the gymnasts’ sport commitment. Past research has shown enjoyment, personal investments, and attractive alternatives emerge as the strongest predictors of sport commitment, many times shadowing the effects of social influence (W.M. Weiss & Weiss, 2007). For this analysis, the independent variable was parents’ perceptions of constraints and types of social support (i.e., companionship, instrumental aid, intimacy, admiration, and reliable alliance) and the dependent variable was the gymnasts’ sport commitment level.
Developmental differences based on competitive level were also explored. Gymnasts were split into three groups based on competitive level during the previous competitive season. The gymnasts were grouped into these three different categories: (a) levels 4 - 5 represent the beginning or entry levels into competitive gymnasts, (b) levels 6 - 7 represent an intermediate level, and (c) levels 8 - 10 are the highest competitive level gymnasts in the Junior Olympic program under USA Gymnastics. The first group consisted of gymnasts who previously competed in levels 4 and 5 ($n = 119$), the second group competed in levels 6 and 7 ($n = 87$), and levels 8, 9, and 10 were labeled as group 3 ($n = 70$). Thus, developmental differences based on competitive level were determined by comparing these groups of gymnasts by the parents' perception of sport commitment model constructs.

To test competitive level differences, a multivariate analyses of variance (MANOVA) was conducted to determine if competitive level differences existed on parent sport commitment constructs (i.e., enjoyment, commitment, investments, social constraints, benefits, costs, and utility value). A second MANOVA was conducted to determine if competitive level differences existed on types of parent social support (i.e., companionship, instrumental aid, intimacy, admiration, and reliable alliance) and social constraints. Once again, these constructs were selected to specifically tap the influence of parental beliefs on social support and constraints on sport commitment. Lastly, three separate multiple regressions were conducted (levels 4 - 5, levels 6 - 7, and levels 8 - 10) to explore developmental differences to determine if parent perceptions of social constraints, enjoyment, investments, benefits, costs, utility value, and social support
predicted the gymnasts' level of sport commitment based on competitive level. A parent social support composite variable was created by taking the mean of all five types of social support reported by the parents. Thus, this composite social support construct was included in this analysis to determine which parent beliefs predict the level of sport commitment for gymnasts competing at various levels. The parents' perceptions on all sport commitment model constructs were the independent variables and the gymnasts' level of sport commitment was the dependent variable.
CHAPTER IV

RESULTS

The purpose of this study was to explore the relationship between parents' perceptions and gymnasts' beliefs on sport commitment, enjoyment, perceived costs and benefits, personal investments, social constraints, social support and utility value. Specifically, this study examined parent perceptions and the influence on the gymnasts' level of sport commitment. Additionally, developmental differences were explored to determine whether differences existed on parent perceptions of sport commitment constructs based on competitive level.

Reliabilities

Alpha coefficients were computed to determine scale reliabilities for all constructs. The alpha coefficients for all the gymnasts' constructs achieved adequate reliability ($\alpha > .70$), with the exception of perceived benefits ($\alpha = .63$). Due to low reliability, squared multiple correlations, and inter-item correlations the decision was made not to include gymnasts' perceived benefits in further analyses. Additionally, one item was deleted from the gymnasts' investment scale to increase scale reliability. The item "How much money have you put into gymnasts?" was deemed unreliable based on item analysis and was deleted. Thus, this item was deleted from both the gymnast and parent subscales. Before deleting this item the alpha coefficient was .62 for the gymnasts, whereas the adjusted alpha coefficient was .70. All scale reliabilities can be seen along the diagonal in Table 1.
The alpha coefficients for parent beliefs on sport commitment constructs also achieved adequate reliability (see Table 2). One item was deleted from the parent and gymnasts' social constraints subscales to increase scale reliability. The parent item "I expect my daughter to compete in gymnastics" and gymnast item "My parents expect me to compete in gymnastics" were deemed unreliable based on item analysis (inter-item correlations, squared multiple correlation, item-total correlation) and was deleted. This changed the alpha coefficient for the parent social constraints scale for the parents from .66 to .70.

Descriptive Statistics and Correlations

The examination of descriptive statistics for gymnast variables revealed relatively high means, thus, gymnasts' answers tended to show little variability. However, descriptive statistics for parent variables demonstrated average means, that is, parents' answers tended to show greater variability. Past research has shown these means are not atypical with gymnasts. For example, in past research gymnasts' mean scores have ranged from 1.17 to 4.94 (W.M. Weiss & Weiss, 2003, 2006, 2007).

Correlations were calculated among the constructs for gymnasts and parents. Tables 1 and 2 show the correlations, means, and standard deviations for all constructs. Examinations of the gymnasts' correlations revealed enjoyment and sport commitment were highly correlated in a positive direction. Therefore, gymnasts who perceived higher enjoyment levels tended to be more committed to gymnastics participation. Attractive alternatives had a strong and negative relationship with enjoyment and commitment. Thus, gymnasts who wanted to participate in other activities more than gymnastics
Table 1

Correlations, means, and standard deviations for gymnast data

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Note: *p < .05; All measures on a 5-point scale except utility value (7-point scale); Alpha coefficients can be seen along the diagonal
Table 2

Correlations, means, and standard deviations for parent data

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Note: \(* p < .05\); All measures on a 5-point scale except utility value (7-point scale); Alpha coefficients can be seen along the diagonal.
tended to have lower enjoyment and commitment. The relationship between costs, enjoyment, and commitment was moderate and negative, while the relationship between costs and attractive alternatives was moderate and positive. Therefore, gymnasts perceiving higher costs tended to perceive lower enjoyment and commitment, and higher attractive alternatives. Gymnasts' perceived utility value had a moderate positive relationship with sport commitment, thus higher perceived usefulness of gymnastics was related to higher commitment.

Gymnasts' perceptions of parent companionship was moderately and positively related to admiration, affection, and reliable alliance, while being positive and highly correlated with instrumental aid and intimacy. Instrumental aid and intimacy had a moderately strong positive relationship. The remaining gymnast variables demonstrated weak relationships. Overall, gymnasts' perceptions of sport commitment constructs tended to demonstrate moderate to high relationships.

Correlations were computed among parent constructs and are shown in Table 2. Examination of parent correlations revealed a moderately positive relationship between commitment, enjoyment, social constraints, investments, and benefits. Parents with higher enjoyment, social constraints, personal investments, and benefits also reported higher commitment to gymnastics. There was a positive and moderate relationship between perceived benefits, enjoyment, and utility value.

Parent social support variables were also moderately to strongly correlated with each other. Parent companionship had a moderately strong positive relationship with instrumental aid, as well as a moderate and positive relationship with intimacy,
admiration, and reliable alliance. Thus, parents with higher perceived companionship also tended to report higher perceived instrumental aid, intimacy, admiration, and reliable alliance. Instrumental aid had a moderate and positive relationship with intimacy and admiration. Moderate and positive correlations also emerged between admiration, intimacy, and reliable alliance. Perceived types of parental social support tended to be correlated in the positive direction, meaning if parents held high perceptions of one type of social support they also reported higher perceptions of the other types of social support. The remaining parent constructs demonstrated weak correlations.

**Research Question 1: What is the relationship between parents' and gymnasts' perceptions on sport commitment model constructs?**

The first purpose of this study was to examine the relationship between parent and gymnasts' beliefs on sport commitment constructs (i.e., commitment, enjoyment, investments, benefits, costs, social constraints, social support, and utility value). Correlations were calculated among gymnast and parent constructs and can be seen in Table 3. The only moderate relationship to emerge was between gymnast and parent social constraints. Gymnast social constraints had a moderate and positive relationship with parents' perceptions of social constraints. The remaining relationships between the other constructs were weak. Thus, parents and gymnasts tended to have different perceptions of sport commitment constructs with regards to the gymnasts competitive gymnastics participation.
Table 3

**Correlations between gymnast and parent perceptions**

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<th>Inv</th>
<th>Soc Con</th>
<th>Benefit</th>
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Note: *p < .05; All measures on a 5-point scale except utility value (7-point scale)
Research Question 2: Which parent beliefs on sport commitment constructs predict gymnasts' level of sport commitment?

A multiple regression analysis was conducted to determine which parent beliefs on sport commitment constructs predicted gymnasts' level of sport commitment. Parent perceptions were the independent variables and the gymnasts' level of sport commitment was the dependent variable. A significant relationship emerged:

\[ F(6, 268) = 4.06, p < .001 \]

There was a moderately weak relationship \( R = .32 \), with the predictors explaining 10% of the variance in the gymnasts' level of sport commitment. Based on Beta weights, parents' perceptions of social constraints (\( \beta = -.20 \)) and benefits (\( \beta = .22 \)) were the significant predictors of gymnasts' sport commitment. Therefore, lower parental perceptions of parent social constraints and higher parental perceptions of benefits predicted higher levels of sport commitment for the gymnasts.

Research Question 3: Which parental perceptions of social constraints and support predict gymnasts' level of sport commitment?

A second multiple regression analysis was conducted to determine which parental perceptions of social constraints and social support (i.e., companionship, instrumental aid, intimacy, admiration, and reliable alliance) predicted gymnasts' level of sport commitment. Parents' perceptions of social constraints and support were the independent variables and the gymnasts' level of sport commitment was the dependent variable. The relationship was not significant:

\[ F(6, 272) = 2.00, p = .07 \]

Thus, parent perceptions of parental social support and social constraints did not predict gymnasts' level of sport commitment.
Research Question 4: Do parent beliefs on sport commitment constructs differ depending on their daughters' competitive level?

A one-way MANOVA was conducted to determine if competitive level differences existed on parent sport commitment constructs (i.e., enjoyment, commitment, investments, social constraints, benefits, costs, and utility value). The competitive level groups were the independent variable and the parent commitment variables were the dependent variables. The MANOVA was significant: Wilks' $\lambda = .86, F (14, 520) = 2.89, p < .0001$. The effect size ($1 - \lambda$) showed that 14% of the variance of parent sport commitment constructs was accounted for by group differences.

A Post-hoc Tukey ($p < .05$) test was conducted to determine which of the dependent variables contributed to group differences. Findings revealed that parents of gymnasts competing in levels 8 - 10 perceived significantly higher costs compared to parents of gymnasts competing in levels 4 - 5 and 6 - 7. Parents of gymnasts competing in levels 6 - 7 and 8 - 10 also perceived higher utility value than did parents of lower level gymnasts (4 - 5), but were not significantly different from each other.

Research Question 5: Do parent beliefs on social support and social constraints differ depending on their daughters' competitive level?

Another one-way MANOVA was conducted to determine if competitive level differences exist based on parent perceptions of social constraints and social support (e.g., companionship, instrumental aid, intimacy, admiration, and reliable alliance). Competitive level groups were again the independent variable, and parent perceptions of parental social support was the dependent variable. The MANOVA was significant:
Wilks’ $\lambda = .89$, $F(12, 530) = 2.56, p < .005$. The effect size $(1- \lambda)$ showed that 11% of the variance of parent perceived social support was accounted for by group differences.

A Post-hoc Tukey ($p < .05$) test was conducted to determine which of the dependent variables contributed to the significant differences. Results indicated that parents of lower level gymnasts (levels 4 - 5) perceived higher parent intimacy compared to parents of gymnasts in higher levels (6 - 7 and 8 - 10). Parents of gymnasts in higher levels (6 - 7 and 8 - 10) were not significantly different from each other on perceived parent intimacy. Parents of the lowest level gymnasts also reported higher parent companionship compared to parents of the highest competitive level gymnasts.

**Research Question 6:** Which parent beliefs of sport commitment constructs predict gymnasts’ level of sport commitment based on competitive level?

A series of simultaneous multiple regression analyses were conducted to determine the relationship between parent beliefs of sport commitment constructs (i.e., enjoyment, investments, benefits, costs, social support, social constraints, and utility value) and the gymnast’s level of sport commitment based on competitive level. For levels 4 - 5 gymnasts, no significant relationship emerged: $F(7, 108) = 1.7, p = .13$, nor for levels 6 - 7: $F(7, 74) = 1.39, p = .22$. However, a significant relationship emerged for levels 8 - 10 gymnasts and parents: $F(7, 60) = 3.4, p < .01$. For the higher level gymnasts, a moderately strong relationship, $R = .53$, emerged with predictors explaining 29% of the variance of sport commitment. Parent perceptions of social constraints ($\beta = -.37$) was the only significant predictor of gymnasts’ sport commitment. Thus, for higher level competitive gymnasts (levels 8 - 10) lower parent perceptions of parental social constraints or the perceived obligation to continue predicted higher levels of sport
commitment for gymnasts. Means and standard deviations by competitive level can be seen in Table 4.

In Summary, correlations between perceived parent and gymnast constructs were moderately weak, with no constructs demonstrating a strong relationship. Parent social constraints and parent benefits were the only significant predictors of gymnasts' sport commitment. Group differences also emerged based on competitive level. For example, parents of gymnasts who were competing in higher levels perceived significantly higher costs compared to parents of lower level gymnasts. Parents of lower level gymnasts perceived significantly higher social support, specifically, parent intimacy and companionship compared to parents of gymnasts in higher levels.

Table 4

*Means and standard deviations for parent perceptions by competitive level*

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<th>Parent Variables</th>
<th>Levels 4 - 5 (n = 119)</th>
<th>Levels 6 - 7 (n = 87)</th>
<th>Levels 8 - 10 (n = 70)</th>
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<td>SD</td>
<td>M</td>
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CHAPTER V
DISCUSSION.

The purpose of this study was to explore the relationship between parents’ and gymnasts’ perceptions on sport commitment model constructs. More specifically, this study examined the influence of parental perceptions of sport commitment constructs on the athletes’ level of commitment to gymnastics. Additionally, developmental differences in regards to competitive level were explored to determine whether or not parental perceptions of sport commitment model constructs differed depending on their daughters’ competitive level.

Research Question 1: What is the relationship between parents’ and gymnasts’ perceptions on sport commitment model constructs?

The first research question was designed to explore possible relationships between parents’ and gymnasts’ perceptions on sport commitment, enjoyment, personal investments, perceived costs and benefits, social constraints, social support, and utility value. Results indicated moderately weak relationships between parents’ and gymnasts’ perceptions. Thus, parents and gymnasts tended to view sport commitment model constructs differently.

Very few studies have examined parents’ and athletes’ beliefs in the sport setting, and no studies to date have explored parents’ and athletes’ perceptions on sport commitment related constructs. Babkes and Weiss (1999) explored the relationship between parents’ reported behaviors and attitudes, the athletes’ perceptions of parental influence, and the athletes’ enjoyment, soccer competence, and intrinsic motivation. Parent perceptions of their own behaviors and attitudes demonstrated moderately weak
relationships with the athletes’ perceptions of the parents’ behaviors and attitudes. For example, parents perceived parental pressure differently than their child, that is, parents may perceive themselves as being supportive and demonstrating actions of approval, yet their children may perceive their parents as pressuring and displaying behaviors of disapproval. The current study also found moderately weak relationships between parents’ and gymnasts’ perceptions of sport commitment model constructs. Parents’ and gymnasts’ had different views on sport perceptions and beliefs, similar to Babkes and Weiss’ (1999) study with youth soccer athletes.

Although Babkes and Weiss (1999) examined both parents’ and athletes’ perceptions of parental influence, the study explored the athletes’ perceptions of the parents’ behaviors and attitudes and the parents’ reported behaviors and beliefs. While the current study explored parents’ and gymnasts’ perceptions of their own sport commitment, enjoyment, costs, benefits, personal investments, social constraints, social support, and utility value. Thus, the two studies were examining different aspects of sport involvement, Babkes and Weiss (1999) focused on perceptions of parental behaviors and attitudes, and actual reported behaviors and attitudes, and the current study centered on the parents’ and athletes’ own beliefs of sport commitment.

Another aspect that differs between the two studies is Babkes and Weiss (1999) included both mothers and fathers, and had fairly equal representation from both parents. In contrast, the current study also included both parents, however the majority of participants (90%) who completed the questionnaires were mothers, potentially
influencing the results. Mothers and fathers may hold different beliefs in terms of sport commitment constructs depending on their own personal experiences.

There are several possible explanations as to why moderately weak relationships may have emerged between parents' and gymnasts' perceptions of sport commitment model constructs. First, parents and gymnasts may have different interpretations of the constructs. Parents may not see their own behaviors as pressuring or creating a sense of obligation to continue, whereas their daughters may perceive parental behaviors in this way. That is, parents may feel they are being supportive, but their daughters' perceive pressure. Parents may think gymnastics will be useful to their daughters' after high school, however, the gymnasts may not be able to look beyond the following week, and see the value of their sport participation to their life after graduation. Lastly, gymnastics may not be rewarding to the parents because of the sacrifices they may have to make, while the gymnasts may only perceive the good things that come from participating in the sport.

Second, the athletes' were competing at various levels, thus some athletes and parents may perceive sport commitment model constructs differently based on age and past experiences. For example, a gymnast competing in level 4 may have a sibling competing at a higher level in a different sport, and her parents may have different perceptions on sport commitment constructs because of the older siblings' sport experiences. However, the gymnast may not have the same views since her sport experiences have just begun. Additionally, the majority of parents reported participating in a competitive sport at one point in time. Their sport participation may not have
demanded as much commitment as their daughters’ gymnastics participation. Sports have been gradually changing over the years, and when the parents were involved they may have had more time to participate in other activities, while their daughter does not because gymnastics takes up too much of her time.

Third, parents and gymnasts may perceive their experiences differently. They may view competitive gymnastics from different perspectives, thus their reported beliefs would be different. Parents may be more realistic about competitive gymnastics, for example, the parent mean scores had greater variability and were less extreme however, the gymnasts mean scores were maxed out and might not be as realistic.

Research Question 2: Which parent beliefs on sport commitment constructs predict gymnasts’ level of sport commitment?

The second research question examined which of the parents’ perceptions of sport commitment model constructs predicted their daughters’ sport commitment level. Only two constructs emerged as significant predictors of the gymnasts’ sport commitment. Lower perceived parental obligation to continue sport participation, and higher perceptions of rewards or positive experiences predicted higher levels of commitment for the gymnasts. Thus, gymnasts’ tended to be more dedicated to their sport participation if the parents perceived placing lower pressure on the gymnast to continue sport participation and higher rewards from gymnastics.

Minimal past research has examined parents’ and athletes’ perceptions of sport. Babkes and Weiss (1999) assessed soccer players and their parents on parental behaviors and attitudes and the athletes’ enjoyment, competence, and intrinsic motivation. In regards to the relationship between parents’ reported behaviors and attitudes and the
athletes' psychosocial responses there was not a significant relationship. Although Babkes and Weiss' (1999) findings regarding parents' reported behaviors and attitudes were not significantly related to the athletes' psychosocial responses, the current study demonstrated significant findings regarding parental perceptions and the athletes' commitment to gymnastics, namely parents' perceptions of pressure and rewards.

One possible explanation as to why parent social constraints emerged as a significant predictor of the gymnasts' sport commitment may be that parents realize the influence of pressure on their daughters' sport experiences. For example, in the past if parents were pressuring their daughter and they found the pressure had a negative influence on her sport participation then they may have backed off and tried being more supportive to help her performance. Past research studies have only examined the athletes' perceptions of social constraints on their sport commitment, some results indicate social constraints as having a positive (e.g., Carpenter, 1992; W.M. Weiss & Weiss, 2007), negative (e.g., W.M. Weiss & Weiss, 2007), or no influence (e.g., Scanlan, Carpenter, Schmidt et al., 1993). That is, athletes in past studies have reported the influence of perceived obligation to continue sport participation as affecting his or her athletic experiences differently. W.M. Weiss and Weiss (2007) found gymnasts between the ages of 11 to 14 years old, perceived parental obligation as a negative influence on their sport commitment. Similar to this study, parents' perceptions of social constraints had a negative influence on the gymnasts' dedication to the sport. That is, parents may realize how pressuring their daughter will impact her sport commitment.
Basically, parents’ perceptions of social support did not emerge as a significant predictor of the gymnasts’ level of sport commitment. However, parent perceptions of social constraints or pressure did emerge as a negative predictor of their daughter’s dedication to gymnastics. Based on these findings, parental influence and/or involvement could potentially only be a negative influence on their child’s sport participation.

Additionally, parent perceptions of rewards or “good things” from gymnastics participation emerged as a significant predictor of the gymnasts’ sport commitment. That is, higher parent perceptions of benefits resulted in higher gymnasts’ sport commitment. A possible explanation for this finding may be the more parents experience rewards or “good things” from gymnastics, the more involved they may become, and in turn gymnasts then become more committed to gymnastics. W. M. Weiss and Weiss (2003) found athletes who perceived higher benefits tended to have more positive experiences in gymnastics. Similar to the current study, higher parent perceptions of rewards tended to increase their daughters’ sport commitment. Lastly, no other constructs emerged as significant predictors of the gymnasts’ sport commitment. A possible explanation for this may be related to the weak correlations between parent and gymnasts’ perceptions of sport commitment model constructs.

Research Question 3: Which parental perceptions of social constraints and support predicted gymnasts’ level of sport commitment?

The third research question explored which of the parents’ perceptions of social constraints and social support predicted the gymnasts’ level of commitment. The results indicated no significant findings. That is, parents’ perceptions of parental constraints and
social support did not predict their daughters' psychological desire and resolve to continue sport participation.

One possible explanation for the non-significant finding is the relatively weak relationships between the parents' and gymnasts' perceptions of sport commitment model constructs. The first research question examined parents' and gymnasts' perceptions of the various sport commitment constructs and findings revealed moderately weak relationships. That is, parents and gymnasts had different beliefs about sport commitment. Similar to this finding, parents' perceptions of parental pressure and support did not predict their daughters' level of commitment.

Another possible explanation is parents are "out of tune" with their daughters. The parents in this study may not realize how committed their daughters' are to gymnastics. Once again, in regards to the first research question, parents and gymnasts had different views on sport commitment as whole. Thus, parents and the athletes did not see eye-to-eye on several constructs. Although the majority of parents reported being involved in competitive sport while growing up, they may not have been faced with the challenges sport brings today. So, their perceptions may be based on their own past competitive sport experiences rather than their daughters' current gymnastics participation, while their daughter is currently going through something completely different. Thus, one could argue that parents and athletes are on a different page when it comes to sport participation.

A final possible explanation for the non-significant finding is that gymnasts' are going through a time where friends, teammates, and coaches may have more influence
than parents. They may be relying more heavily on other social influences for support or pressure compared to their parents. Young athletes may transition between who (e.g., parents, friends, teammates, and coaches) they rely on for support or information in sport (Jowett & Timson-Katchis, 2005). Thus, if a gymnast relies more heavily on a coach or teammate for support, one could argue that her parents' perceptions of support and pressure may not predict her psychological desire and resolve to continue sport participation. Instead, the coach or teammates' perceptions of pressure and/or social support may be better predictors of the gymnast's sport commitment. That is, the coach or teammate may influence the athlete by being a source of support or pressure which may influence how committed the athlete is to gymnastics.

**Research Question 4: Do parent beliefs on sport commitment constructs differ depending on their daughters’ competitive level?**

The fourth research question explored parental beliefs on sport commitment constructs and determined if these beliefs were different based on their daughters' competitive level. Results were significant, in that parents’ perceptions of the constructs were different depending on their daughters’ competitive level. Findings indicated parents of the highest level (8–10) gymnasts perceived more “downsides” to competing in gymnastics compared to parents of the lower level (4–7) gymnasts, while parents of gymnasts competing in levels 6–10 perceived higher usefulness or value of gymnastics compared to parents of gymnasts competing in the lowest levels.

No studies to date have explored parental perceptions and whether their beliefs differed depending on their child’s competitive level. However, W. M. Weiss and Weiss (2007) explored age and competitive level differences in relation to sport commitment
with a group of female gymnasts. Developmental differences emerged with this group of athletes. Investments, costs, coach social support, and best friend, teammate, and coach social constraints were all predictors of the lowest level (5 - 6) gymnasts sport commitment. While investments and teammate social constraints were significant predictors of the highest level (8 - 10) gymnasts sport commitment. W. M. Weiss and Weiss (2007) assessed the gymnasts' perceptions of sport commitment constructs, while the current study examined the parents' and gymnasts' perceptions. However, competitive level differences emerged with the group of female gymnasts, and thus one would expect developmental differences to also emerge based on parental perceptions.

Parents of gymnasts competing in the lowest levels (4 - 5) of gymnastics may have different beliefs about sport commitment compared to parents of the highest levels (8 - 10) of gymnastics because their daughters' experiences are different based on these various competitive levels. For example, parents of gymnasts competing at the lowest levels are just beginning, thus one could argue there are very few costs associated with gymnastics participation. As their daughter moves to the highest levels of gymnastics, more costs may be linked to gymnastics participation. A few possible costs at the highest levels may be longer and harder workouts, less free time, more prone to injury, fatigue, and more pressure to compete well. In contrast the lowest level gymnasts may only be concerned with learning new skills, having fun, and being affiliated with a team.

The perceived usefulness of gymnastics participation could be viewed the same as perceived costs. For example, parents of the lowest levels of gymnastics are at the beginning of their daughters' sport participation, thus they may not look ahead to how
gymnastics participation will help their daughter later in life. While parents of gymnasts competing in higher levels (6 – 10) may see the usefulness of gymnastics to their daughters’ life. For example, they may see how their daughters’ are learning time management, organization, dedication, and persistence. Another possible reason parents of gymnasts in levels (6 – 10) perceived higher utility value may be gymnasts in the higher levels are older. Thus, parents can see how gymnastics may influence their life later, compared to a gymnast who is younger and just beginning to participate in the sport.

Research Question 5: Do parent beliefs on social support and social constraints differ depending on their daughters’ competitive level?

The fifth research question examined parental perceptions of the various types of social support and social constraints and if these perceptions differed based on their daughters’ competitive level. The results were significant and indicated parents of the lowest level (4 – 5) gymnasts perceived higher intimacy and companionship compared to parents of higher level (6 – 10) gymnasts. That is, parents of gymnasts in the lowest competitive levels felt they talked, shared secrets, spent free time, and doing enjoyable things together more compared to parents of higher level gymnasts.

Once again, W. M. Weiss and Weiss (2007) established there are developmental differences on sport commitment model constructs with a group of female gymnasts. Although, the study assessed the gymnasts’ perceptions the results are similar with the current study. It would be expected parents’ perceptions would also differ depending on competitive level, since parents are highly involved in their child’s sport experiences. Throughout their child’s sport career parents develop and grow along with their daughters, they are exposed to many of the same positive and negative aspects of being a
competitive gymnast. Parents’ perceptions of the various types of social support would be expected to change depending on their daughters’ competitive level.

Chances are lower level gymnasts are probably younger than higher level gymnasts. Developmental changes occur from younger to older athletes in sources of competency beliefs (e.g., Harter, 1998; M.R. Weiss, Ebbeck, & Horn, 1997), and self-perceptions (e.g., M.R. Weiss & Ferrer-Caja, 2002). For example, parents are a valuable source of competence information at younger ages, whereas peers and coaches emerge as a valuable source of competence information for older athletes (e.g., M.R. Weiss et al., 1997). Thus, one could argue the same changes may take place with sport motivation, more specifically with sources of social support. That is, lower level gymnasts may be younger and may rely on their parents’ for sources of support, while higher level gymnasts are usually older and may rely on peer or coaches for social support.

**Research Question 6: Which parent beliefs of sport commitment constructs predict gymnasts’ level of sport commitment based on competitive level?**

The final research question examined which parental perceptions of sport commitment constructs predicted their daughters’ level of sport commitment based on competitive level. No significant relationship emerged for parents’ of gymnasts competing in levels 4 – 7, however a significant relationship emerged for parents’ of gymnasts competing in levels 8 – 10. Parental perceptions of pressure to continue sport participation was the only predictor of the gymnasts’ sport commitment. That is, for the highest level (8 – 10) gymnasts, lower parental perceptions of social constraints or perceived obligation to continue sport participation predicted higher gymnast psychological desire and resolve to continue sport participation.
There may be a variety of reasons for the non-significant findings in regards to which parental perceptions of sport commitment constructs predicted their daughters' level of sport commitment based on competitive level. First, returning to the findings of the first research question, parents' and gymnasts' perceptions of sport commitment constructs demonstrated moderately weak relationships. That is, parents and gymnasts tended to have different views on sport commitment constructs. Parents and athletes' may have completely different views on sport based on past experiences. Therefore, it would be suspected parents' perceptions would not predict their daughters' level of sport commitment.

However, parents' perceptions of social constraints predicted their daughters' level of commitment with the highest level gymnasts. Thus, another possible explanation may be parents of higher level gymnasts understand their daughters' gymnastics experiences better. Parents have gone through several years of watching practices and meets, and may have a better understanding of their daughters' gymnastics participation, whereas lower level parents are just beginning their journey through gymnastics and may not yet be in tune with their daughters' participation. Years of experience could be a determining factor in whether parents' perceptions of sport commitment constructs predict their daughters' level of dedication.

Yet, another possible explanation is the fact that some parents have been involved in the sport world for several years. They are more experienced in dealing with their daughters and may in fact perceive sport commitment constructs differently compared to parents of lower level gymnasts, such as perceived costs and perceived usefulness.
parent of a gymnast involved in a lower level may not have many experiences. Parents and gymnasts may not have common understandings of sport commitment constructs until the parents and gymnasts have matured or developed. Thus, parents of higher level gymnast may recognize the influence of parental pressure on their daughters’ level of commitment. For example, parents of higher level gymnasts may have experimented over the years with increasing or decreasing parental pressure. With this trial and error, parents of higher level gymnasts may have learned that less pressure from parents is more beneficial for their daughters. In contrast, “beginner parents” or parents of lower level gymnasts may not have gone through this process yet nor seen any reason to change what they are doing as a parent to help motivate their gymnast.

Finally, it may be that all parents can do is negatively influence their child at more advanced levels. Previous research has indicated enjoyment is the strongest predictor of sport commitment (e.g., W.M. Weiss & Weiss, 2007), thus one could argue less pressure or obligation from others to continue sport participation could equal more enjoyment. Therefore, more enjoyment would result in more dedication to sport participation.

**Limitations**

There were some limitations to the current study.

1. Conclusions based on this study were restricted to participants from gymnastics clubs in the Midwest and New Jersey and may not reflect the total population of gymnasts and parents.

2. The sample consisted of 283 gymnasts and their parents, this may not accurately represent the beliefs of all athletes and parents in various sports.
Recommendations

Based on the findings of this study, some recommendations have been made for future studies.

1. A larger study should be conducted to determine parental influence on gymnasts’ sport commitment in order to obtain a larger demographic of athletes and parents.
2. Future studies should examine parental influences on athletes’ commitment in a variety of sports.
3. Coaches should have parent education courses to teach parents the difference between pressure and support. Coaches can help parents to not put unnecessary pressure on their children.

Conclusions

Based upon the results of the present study, the following conclusions have been made.

1. Parents and gymnasts tended to have different beliefs on sport commitment model constructs. Thus, parents and gymnasts’ had different perceptions of the various constructs.
2. Parental perceptions of social constraints and benefits predicted their daughters’ level of commitment. That is, lower parental perceptions of social constraints and higher benefits predicted higher levels of sport commitment for the gymnasts.
3. Parents’ perceptions of social constraints and support did not predict their daughters’ level of commitment.
4. Parent perceptions of sport commitment constructs differed depending on their daughters’ competitive level.

5. Parents of gymnasts competing in the lowest levels perceived higher intimacy and companionship compared to parents of gymnasts competing in the higher levels.

6. Parents’ perceptions of social constraints were the only significant predictor of the highest levels gymnasts’ sport commitment. There were no significant findings in regards to lower level gymnasts.
REFERENCES


APPENDIX A

GYMNAST QUESTIONNAIRE

PARENT QUESTIONNAIRE
GYMNAST QUESTIONNAIRE

University of Northern Iowa

GYMNASTICS SURVEY

2007
Benefits are all the positive things about gymnastics. They are what make gymnastics fun. Examples of some potential benefits include the following:

- Improving your gymnastics skills
- Attaining personal goals
- Feeling successful
- Having fun with your teammates and coaches
- Receiving recognition from others for being a gymnast

Gymnasts differ in the benefits they receive from gymnastics. You may or may not experience all of these potential benefits. Some gymnasts feel they don't attain many benefits, whereas others feel they get a lot of benefits out of gymnastics. You may even attain some benefits that were not listed here. We want to know how you feel about the benefits you receive from being a competitive gymnast. Circle the response that best describes the benefits of gymnastics.

1. How rewarding is gymnastics participation?
   
   Not at all  A little  Somewhat  much so  much so

2. To what extent are there good things associated with gymnastics participation?
   
   Not at all  A little  Somewhat  much so  much so

3. To what degree do you experience benefits associated with gymnastics participation?
   
   Not at all  A little  Somewhat  much so  much so

4. Has gymnastics been a positive experience for you?
   
   Not at all  A little  Somewhat  much so  much so

STOP! PLEASE WAIT FOR FURTHER INSTRUCTIONS!
Costs are all the negative things about competitive sport participation. They include all the things you do not like about sport participation. Here are some examples of costs that some gymnasts experience:

- Gymnastics is too competitive and stressful
- Training is too boring
- Gymnastics requires too many sacrifices and takes too much time
- Trying to live up to expectations of other people
- Not getting along with coach and/or teammates

You may experience none, some, or all of these costs. Or you may even experience other costs that were not listed here. As you complete the next few items, remember that costs are all the negative things you do not like about participating in gymnastics. Circle the response that best describes how you feel about the costs involved with competitive gymnastics.

1. To what extent do you experience costs associated with your competitive gymnastics participation?  
   Pretty Very
   Not at all A little Somewhat much so much so

2. To what extent are there unpleasant things associated with competitive gymnastics?  
   Pretty Very
   Not at all A little Somewhat much so much so

3. Do you feel there are "downsides" to being a gymnast?  
   Pretty Very
   Not at all A little Somewhat much so much so

4. Are there negative things associated with being on a competitive gymnastics team?  
   Pretty Very
   Not at all A little Somewhat much so much so

STOP! ©

Please wait for further instructions before you begin the next section.
Everyone has a number of people who are important in her life. These questions ask about your relationships with each of the following people: your parents, coach, teammates, and best friend.

Please choose the most important best friend you have. Do not choose a sibling.

Best Friend’s First Name ____________________

How long have you been friends? ___ years

Is your best friend: (make a “X” in one of the spaces below)

_______ A teammate? _______ A friend outside of gym? _______ A former teammate?

When you are answering the following questions about these important people in your life, please be sure to think of the same person each time. For example, for the best friend items, please be sure you think of the friend you wrote in above. For the questions about your coach, please think of the coach you work with the most during practice and at competitions. If there is more than one coach you work with a lot, please choose only one of these coaches to think of as you answer the following questions.

Now we would like you to answer the following questions about the people in your life. Circle the number that best indicates how you feel.

1. How much free time do you spend with this person or persons outside of gym?

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2. How much does this person or persons teach you how to do things that you don’t know?

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3. How much do you talk about everything with this person or persons?

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4. How much does this person or persons like you?

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5. How much does this person or persons treat you like you're admired and respected?

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6. How sure are you that this relationship will last no matter what?

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7. How much do you play around and have fun with this person or persons outside of gym?

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8. How much does this person or persons help you figure out or fix things?

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9. How much do you share your secrets and private feelings with this person or persons?

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10. How much does this person or persons really care about you?

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11. How much does this person or persons treat you like you’re good at many things?

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12. How sure are you that your relationship will last in spite of fights?

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13. How often do you go places and do enjoyable things with this person or persons?

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14. How often does this person or persons help you when you need to get something done?

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15. How much do you talk to this person or persons about things that you don’t want others to know?

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16. How much does this person or persons have a strong feeling of affection (liking) toward you?

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17. How much does this person or persons like or approve of the things you do?

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18. How sure are you that your relationship will continue in the years to come?

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You may continue with the rest of the questionnaire. If you have questions, please just ask!

The following questions have to do with your current participation in competitive gymnastics. Circle the answer that best describes how you feel about your gymnastics participation.

1. Compared to gymnastics participation, there are other things I could do which would be more enjoyable.  
   - not at all true for me  
   - a little true for me  
   - sort of true for me  
   - pretty true for me  
   - completely true for me

2. How much time have you put into gymnastics?
   - none at all  
   - a little  
   - some  
   - a lot  
   - a whole lot

3. I have to stay in gymnastics because my coach has done so much for me  
   - not at all true for me  
   - a little true for me  
   - sort of true for me  
   - pretty true for me  
   - completely true for me

4. How dedicated are you to competing in gymnastics?
   - not at all dedicated  
   - a little dedicated  
   - sort of dedicated  
   - pretty dedicated  
   - very dedicated

5. My best friend expects me to continue competing in gymnastics.  
   - not at all true for me  
   - a little true for me  
   - sort of true for me  
   - pretty true for me  
   - completely true for me

6. How much do you like gymnastics?
   - not at all  
   - a little  
   - sort of  
   - pretty much so  
   - very much so

7. I feel pressure from my parents to keep participating in gymnastics.  
   - not at all true for me  
   - a little true for me  
   - sort of true for me  
   - pretty true for me  
   - completely true for me

8. How much money have you put into gymnastics?
   - none at all  
   - a little  
   - some  
   - a lot  
   - a whole lot
9. My coach would be disappointed with me if I were to quit gymnastics participation. 

   not at all  | a little true | sort of true | pretty much true | completely true for me
   true for me | for me        | for me       | for me           | true for me

10. How hard would it be for you to quit gymnastics? 

   not at all  | a little true | sort of true | pretty much true | completely true for me
   true for me | for me        | for me       | for me           | true for me

11. Compared to gymnastics participation, there are other things I could do which would be more fun. 

   not at all  | a little true | sort of true | pretty much true | completely true for me
   true for me | for me        | for me       | for me           | true for me

12. My best friend would be disappointed with me if I were to quit gymnastics participation. 

   not at all  | a little true | sort of true | pretty much true | completely true for me
   true for me | for me        | for me       | for me           | true for me

13. My coach expects me to continue competing in gymnastics. 

   Not at all  | A little true | sort of true | pretty much true | completely true for me
   true for me | for me        | for me       | for me           | true for me

14. How much effort have you put into gymnastics? 

   none at all | a little true | some         | a lot            | a whole lot

15. I have to stay in gymnastics because my best friend has done so much for me. 

   not at all  | a little true | sort of true | pretty much true | completely true for me
   true for me | for me        | for me       | for me           | true for me

16. I would like to do something else instead of participating in gymnastics. 

   not at all  | a little true | sort of true | pretty much true | completely true for me
   true for me | for me        | for me       | for me           | true for me

17. I feel I have to be in gymnastics to please my parents. 

   not at all  | a little true | sort of true | pretty much true | completely true for me
   true for me | for me        | for me       | for me           | true for me

18. My parents expect me to keep competing in gymnastics. 

   not at all  | a little true | sort of true | pretty much true | completely true for me
   true for me | for me        | for me       | for me           | true for me

19. How determined are you to keep competing in gymnastics? 

   not at all  | a little true | sort of true | pretty much true | very much so
   true for me | for me        | for me       | for me           | true for me

20. I feel I have to be in gymnastics so that I can be with my teammates. 

   not at all  | a little true | sort of true | pretty much true | completely true for me
   true for me | for me        | for me       | for me           | true for me
Please think about what it is like to be a gymnast in your gym. What is it usually like in your gym? Circle the description that describes how much you agree or disagree with each of the following statements.

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly agree</th>
<th>So-so</th>
<th>Agree</th>
<th>Strongly disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. In this gym, gymnasts help each other learn new skills.</td>
<td></td>
<td></td>
<td></td>
<td>Strongly disagree</td>
</tr>
<tr>
<td>2. In this gym, the coaches have &quot;favorites.&quot;</td>
<td></td>
<td></td>
<td></td>
<td>Strongly disagree</td>
</tr>
<tr>
<td>3. In this gym, each gymnast contributes in some important way.</td>
<td></td>
<td></td>
<td></td>
<td>Strongly disagree</td>
</tr>
<tr>
<td>4. In this gym, the coaches get mad when a gymnast makes a mistake.</td>
<td></td>
<td></td>
<td></td>
<td>Strongly disagree</td>
</tr>
<tr>
<td>5. In this gym, the gymnasts help each other to get better and excel.</td>
<td></td>
<td></td>
<td></td>
<td>Strongly disagree</td>
</tr>
<tr>
<td>6. In this gym, the focus is to improve in each meet and practice.</td>
<td></td>
<td></td>
<td></td>
<td>Strongly disagree</td>
</tr>
<tr>
<td>7. In this gym, coaches encourage gymnasts to help each other.</td>
<td></td>
<td></td>
<td></td>
<td>Strongly disagree</td>
</tr>
<tr>
<td>8. In this gym, each gymnast feels as if she is an important team member.</td>
<td></td>
<td></td>
<td></td>
<td>Strongly disagree</td>
</tr>
<tr>
<td>9. In this gym, the coaches yell at gymnasts for making mistakes.</td>
<td></td>
<td></td>
<td></td>
<td>Strongly disagree</td>
</tr>
<tr>
<td>10. In this gym, gymnasts feel successful when they improve.</td>
<td></td>
<td></td>
<td></td>
<td>Strongly disagree</td>
</tr>
<tr>
<td>11. In this gym, the coaches make it clear who they think are the best gymnasts.</td>
<td></td>
<td></td>
<td></td>
<td>Strongly disagree</td>
</tr>
<tr>
<td>12. In this gym, gymnasts are punished when they make a mistake.</td>
<td></td>
<td></td>
<td></td>
<td>Strongly disagree</td>
</tr>
<tr>
<td>13. In this gym, gymnasts try to score higher than their teammates.</td>
<td></td>
<td></td>
<td></td>
<td>Strongly disagree</td>
</tr>
<tr>
<td>14. In this gym, the coaches emphasize always trying your best.</td>
<td></td>
<td></td>
<td></td>
<td>Strongly disagree</td>
</tr>
<tr>
<td>15. In this gym, the coaches favor some gymnasts more than others.</td>
<td></td>
<td></td>
<td></td>
<td>Strongly disagree</td>
</tr>
</tbody>
</table>
16. In this gym, the coaches make sure gymnasts improve on skills they're not so good at.

17. In this gym, each gymnast has an important role.

18. In this gym, gymnasts are encouraged to score higher than their teammates.

19. In this gym, trying hard is rewarded.

20. In this gym, coaches praise gymnasts only when they outscore their teammates.

For the next set of questions, circle the answer that best represents how you feel about your gymnastics experience.

1. Compared to other gymnasts on your team, how well do you expect to do this year?

2. How well did you expect to do in gymnastics this past season?

3. How good are you at gymnastics?

4. If you were to order all the gymnasts on your team from the worst to the best, where would you put yourself?

5. How have you been doing in gymnastics this year?
<table>
<thead>
<tr>
<th>Question</th>
<th>Not at all important</th>
<th>Kind of</th>
<th>Very Important</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. It is important to me to compete in gymnastics.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. I feel that, to me, being good at gymnastics is...</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. How important is it to you that you are successful in gymnastics?</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. How important is it to you to have high scores in gymnastics?</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Reason for Enjoying Gymnastics</th>
<th>Not all true for me</th>
<th>Sort of true for me</th>
<th>Very true for me</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I enjoy competing in gymnastics mostly because of the awards I receive.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. I enjoy competing in gymnastics because I gain recognition for it from my peers.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. I like competing in gymnastics because of the positive feedback I receive from my coach.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. I compete in gymnastics in part because of the friendships I have on the team.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Question</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>-------------------------------------------------------------------------</td>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>1. How useful is competitive gymnastics for what you want to do after you graduate?</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>2. How useful is what you learn through gymnastics for your daily life outside of the gym?</td>
<td></td>
<td></td>
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<tr>
<td>3. How likely is it that you will use what you have learned through gymnastics in your life after you graduate?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. How often does what you've learned through gymnastics help you in your other activities that you are involved in?</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**1. In general, I find competing in gymnastics...**

<table>
<thead>
<tr>
<th></th>
<th>Very boring</th>
<th>Somewhat boring</th>
<th>Slightly boring</th>
<th>Not boring</th>
<th>Slightly interesting</th>
<th>Somewhat interesting</th>
<th>Very interesting</th>
</tr>
</thead>
<tbody>
<tr>
<td>2. How much do you like competing in gymnastics?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. I have fun competing on this team.</td>
<td>Strongly disagree</td>
<td>Disagree</td>
<td>Slightly disagree</td>
<td>Sort of</td>
<td>Slightly agree</td>
<td>Agree</td>
<td>Strongly agree</td>
</tr>
<tr>
<td>4. I enjoy competing in gymnastics on this team.</td>
<td>Strongly disagree</td>
<td>Disagree</td>
<td>Slightly disagree</td>
<td>Sort of</td>
<td>Slightly agree</td>
<td>Agree</td>
<td>Strongly agree</td>
</tr>
</tbody>
</table>

YOU ARE ALMOST DONE! **Hang in there!!!!!!!**

The following questions have to do with your current participation in competitive gymnastics. Circle the answer that best describes how you feel about your gymnastics participation.

1. I feel I have to be in gymnastics to please my teammates.

2. I would be happier doing something else instead of participating in gymnastics.
3. I feel I have to be in gymnastics to please my best friend.
   - not at all true for me
   - a little true for me
   - sort of true for me
   - much true for me
   - completely true for me

4. How much of yourself have you put into gymnastics?
   - none at all
   - a little
   - some
   - a lot
   - a whole lot

5. My parents would be disappointed with me if I were to quit gymnastics.
   - not at all true for me
   - a little true for me
   - sort of true for me
   - much true for me
   - completely true for me

6. How much do you enjoy gymnastics?
   - not at all
   - a little
   - sort of
   - much
   - very much so

7. I feel pressure from my teammates to keep participating in gymnastics.
   - not at all true for me
   - a little true for me
   - sort of true for me
   - much true for me
   - completely true for me

8. I feel I have to be in gymnastics to please my coach.
   - not at all true for me
   - a little true for me
   - sort of true for me
   - much true for me
   - completely true for me

9. How much energy have you put into gymnastics?
   - none at all
   - a little
   - some
   - a lot
   - a whole lot

10. Do you want to keep competing in gymnastics?
    - not at all
    - a little
    - sort of
    - much
    - very much so

11. I feel pressure from my best friend to keep participating in gymnastics.
    - not at all true for me
    - a little true for me
    - sort of true for me
    - much true for me
    - completely true for me

12. How fun is gymnastics participation for you?
    - not at all
    - a little
    - sort of
    - much
    - very much so

13. I feel pressure from my coach to keep participating in gymnastics.
    - not at all true for me
    - a little true for me
    - sort of true for me
    - much true for me
    - completely true for me

14. Compared to gymnastics participation there are other things I could do which would make me happier.
    - not at all true for me
    - a little true for me
    - sort of true for me
    - much true for me
    - completely true for me

15. My teammates would be disappointed with me if I were to quit gymnastics.
    - not at all true for me
    - a little true for me
    - sort of true for me
    - much true for me
    - completely true for me
16. I have to stay in gymnastics because my parents have done so much for me.

17. What would you be willing to do to keep competing in gymnastics?

18. My teammates expect me to keep competing in gymnastics.

TELL US ABOUT YOURSELF!

How old are you? ________
Birthday (month, day, year) __________

What grade in school did you just finish?

2nd grade 3rd grade 4th grade 5th grade 6th grade 7th grade
8th grade 9th grade 10th grade 11th grade 12th grade

What level did you compete in this past competitive season?

Level 4 Level 5 Level 6 Level 7 Level 8
Level 9 Level 10 Elite Did not compete

What level do you think you will compete in NEXT season?

Level 4 Level 5 Level 6 Level 7 Level 8
Level 9 Level 10 Elite

How many hours a week do you practice:

During the season

During the summer
Circle the response below that best describes you.

African-American  Hispanic  Other (say):  __________________________

White  Native American  Asian-American

At what age did you start gymnastics?

______________________________

At what age did you start competing in gymnastics?

______________________________

What is your favorite event?

Vault  Bars  Beam  Floor  All of them

Do you ever feel like you “have to be in gymnastics?” If yes, please tell us why you feel this way.

Please go back through the questionnaire and make sure that you have answered every question.

THANK YOU!!!!
Benefits are all the positive things about your daughter’s competitive gymnastics participation. They are what make gymnastics fun. Examples of some potential benefits include the following:

- Improving skills
- Attaining personal goals
- Feeling successful
- Having fun with teammates and coaches
- Receiving recognition from others for being a gymnast

Athletes differ in the benefits they receive from gymnastics participation. Your daughter may or may not experience all of these potential benefits. Some athletes feel they don’t attain many benefits, whereas others feel they get a lot of benefits out of sport. Your daughter may even attain some benefits that were not listed here. We want to know how you feel about the benefits of your daughter participating in competitive gymnastics. Circle the response that best describes the benefits of gymnastics participation.

1. How rewarding is competitive gymnastics?

<table>
<thead>
<tr>
<th>Not at all</th>
<th>A little</th>
<th>Somewhat</th>
<th>Pretty much so</th>
<th>Very much so</th>
</tr>
</thead>
</table>

2. To what extent are there good things associated with competitive gymnastics?

<table>
<thead>
<tr>
<th>Not at all</th>
<th>A little</th>
<th>Somewhat</th>
<th>Pretty much so</th>
<th>Very much so</th>
</tr>
</thead>
</table>

3. To what degree are benefits associated with competitive gymnastics participation?

<table>
<thead>
<tr>
<th>Not at all</th>
<th>A little</th>
<th>Somewhat</th>
<th>Pretty much so</th>
<th>Very much so</th>
</tr>
</thead>
</table>

4. Has competitive gymnastics been a positive experience?

<table>
<thead>
<tr>
<th>Not at all</th>
<th>A little</th>
<th>Somewhat</th>
<th>Pretty much so</th>
<th>Very much so</th>
</tr>
</thead>
</table>
Costs are all the negative things about your daughter’s competitive gymnastics participation. They include all the things you do not like about gymnastics participation. Here are some examples of costs some gymnasts may experience:

- Gymnastics is too competitive and stressful
- Training is too boring
- Competitive gymnastics requires too many sacrifices and takes too much time
- Trying to live up to expectations of other people
- Not getting along with coach and/or teammates

Your daughter may experience none, some, or all of these costs. Or she may even experience other costs that were not listed here. As you complete the next few items, remember that costs are all the negative things you do not like about your daughter participating in competitive gymnastics. Circle the response that best describes how you feel about the costs involved with your daughter’s gymnastics participation.

1. To what extent are there costs associated with competitive gymnastics participation?

   - Not at all
   - A little
   - Somewhat
   - Pretty much so
   - Very much so

2. To what extent are there unpleasant things associated with competitive gymnastics participation?

   - Not at all
   - A little
   - Somewhat
   - Pretty much so
   - Very much so

3. Do you feel there are "downsides" to being a gymnast?

   - Not at all
   - A little
   - Somewhat
   - Pretty much so
   - Very much so

4. Are there negative things associated with being on a competitive gymnastics team?

   - Not at all
   - A little
   - Somewhat
   - Pretty much so
   - Very much so
Circle the answer that best describes how you feel about your daughter competing in gymnastics.

1. Do you want your daughter to keep competing in gymnastics?  
   - Not at all  
   - A little  
   - Sort of  
   - Pretty much  
   - Very much

2. How fun is competitive gymnastics for you?  
   - Not at all  
   - A little  
   - Sort of  
   - Pretty much  
   - Very much

3. How much effort have you put into your daughter’s competitive gymnastics?  
   - Not at all  
   - A little  
   - Sort of  
   - Pretty much  
   - Very much

4. My daughter feels she has to be in competitive gymnastics to please me.  
   - Not at all true  
   - A little true  
   - Sort of true  
   - Pretty much true  
   - Completely true

5. How dedicated are you to your daughter competing in gymnastics?  
   - Not at all dedicated  
   - A little dedicated  
   - Sort of dedicated  
   - Pretty dedicated  
   - Very dedicated

6. How much do you like gymnastics?  
   - Not at all  
   - A little  
   - Sort of  
   - Pretty much  
   - Very much

7. How much time have you put into your daughter’s competitive gymnastics?  
   - Not at all  
   - A little  
   - Sort of  
   - Pretty much  
   - Very much

8. My daughter feels pressure from me to keep participating in competitive gymnastics.  
   - Not at all true  
   - A little true  
   - Sort of true  
   - Pretty much true  
   - Completely true

9. What would you be willing to do to keep your daughter competing in gymnastics?  
   - Nothing at all  
   - A little bit  
   - A few things  
   - Some things  
   - A lot of things

10. How much do you enjoy competitive gymnastics?  
    - Not at all  
    - A little  
    - Sort of  
    - Pretty much  
    - Very much

11. How much energy have you put into your daughter’s competitive gymnastics?  
    - Not at all  
    - A little  
    - Sort of  
    - Pretty much  
    - Very much

12. I would be disappointed if my daughter were to quit competitive gymnastics.  
    - Not at all true  
    - A little true  
    - Sort of true  
    - Pretty much true  
    - Completely true

13. How hard would it be for you if your daughter were to quit competitive gymnastics?  
    - Not at all  
    - A little  
    - Sort of  
    - Pretty much  
    - Very much

14. How much of yourself have you put into your daughter’s competitive gymnastics?  
    - Not at all  
    - A little  
    - Sort of  
    - Pretty much  
    - Very much

15. I expect my daughter to continue competing in gymnastics.  
    - Not at all true  
    - A little true  
    - Sort of true  
    - Pretty much true  
    - Completely true

16. How determined are you to keep your daughter competing in gymnastics?  
    - Not at all  
    - A little  
    - Sort of  
    - Pretty much  
    - Very much

17. How much money have you put into your daughter’s competitive gymnastics?  
    - Not at all  
    - A little  
    - Sort of  
    - Pretty much  
    - Very much

18. My daughter feels she has to stay in competitive gymnastics because I have done so much for her.  
    - Not at all true  
    - A little true  
    - Sort of true  
    - Pretty much true  
    - Completely true
<table>
<thead>
<tr>
<th></th>
<th>Not at all</th>
<th>Sort of useful</th>
<th>Very useful</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. How useful is competitive gymnastics for what your daughter wants to do after she graduates?</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. How useful is what your daughter learns through gymnastics for her daily life outside of the gym?</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. How likely is it that your daughter will use what she has learned through gymnastics in her life after she graduates?</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. How often does what your daughter has learned through gymnastics help her in other activities that she is involved in?</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Everyone has a number of people who are important in their life. These questions ask about your daughter’s relationship with you

<table>
<thead>
<tr>
<th></th>
<th>Little or none</th>
<th>Somewhat</th>
<th>Very much</th>
<th>Extremely much</th>
<th>The most</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. How much free time do you spend with your daughter outside of practice and competitions?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. How much do you teach your daughter how to do things that she doesn’t know?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. How much does your daughter talk about everything with you?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. How much do you treat your daughter like she is admired and respected?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. How sure are you that your relationship will last no matter what?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. How much do you play around and have fun with your daughter outside of practice and competitions?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. How much do you help your daughter figure out or fix things?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. How much does your daughter share her secrets and private feelings with you?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
9. How much do you treat your daughter like she is good at many things?

<table>
<thead>
<tr>
<th></th>
<th>Little or none</th>
<th>Somewhat</th>
<th>Very much</th>
<th>Extremely much</th>
<th>The most</th>
</tr>
</thead>
</table>

10. How sure are you that your relationship will last in spite of fights?

<table>
<thead>
<tr>
<th></th>
<th>Little or none</th>
<th>Somewhat</th>
<th>Very much</th>
<th>Extremely much</th>
<th>The most</th>
</tr>
</thead>
</table>

11. How often do you go places and do enjoyable things with your daughter?

<table>
<thead>
<tr>
<th></th>
<th>Little or none</th>
<th>Somewhat</th>
<th>Very much</th>
<th>Extremely much</th>
<th>The most</th>
</tr>
</thead>
</table>

12. How often do you help your daughter when she needs to get something done?

<table>
<thead>
<tr>
<th></th>
<th>Little or none</th>
<th>Somewhat</th>
<th>Very much</th>
<th>Extremely much</th>
<th>The most</th>
</tr>
</thead>
</table>

13. How much do you talk to your daughter about things that she doesn't want others to know?

<table>
<thead>
<tr>
<th></th>
<th>Little or none</th>
<th>Somewhat</th>
<th>Very much</th>
<th>Extremely much</th>
<th>The most</th>
</tr>
</thead>
</table>

14. How much do you like or approve of things your daughter does?

<table>
<thead>
<tr>
<th></th>
<th>Little or none</th>
<th>Somewhat</th>
<th>Very much</th>
<th>Extremely much</th>
<th>The most</th>
</tr>
</thead>
</table>

15. How sure are you that your relationship will continue in the years to come?

<table>
<thead>
<tr>
<th></th>
<th>Little or none</th>
<th>Somewhat</th>
<th>Very much</th>
<th>Extremely much</th>
<th>The most</th>
</tr>
</thead>
</table>

### TELL US ABOUT YOU!!

Please answer the following questions describing yourself. This information will be used to describe the sample as a whole. Your answers will be kept confidential.

1. Age

2. What is your highest level of education?

3. Relationship with gymnast? (circle one)

   - Mother
   - Father
   - Guardian
   - Other: ____________________
4. How do you describe your race/ethnicity? (circle one)

White/Caucasian  African American  Asian-American
Native-American  Hispanic-American  Other: _______

5. Approximately how much does tuition cost per month? (circle one)

Less than $100  $101-200  $201-300  $301-400
$401-500  $501-600  More than $600

6. Were you ever involved in competitive sports?

Yes  No

If yes, at what level? (circle one)

Recreational  Middle School  High School
College  Professional/Elite  Other: _______

THANK YOU FOR YOUR TIME!
APPENDIX B

IRB LETTER OF APPROVAL

CONTACT LETTERS

CONSENT FORMS
To: Windee Weiss, Asst. Professor  Heather DeWaard  
Physical Education  c/o Windee Weiss  
203 WRC 0241  
203 WRC 0241

From: Larry Hensley, Ed.D.  
UNI Human Participants Review Committee (IRB)

Title: Longitudinal Analysis of Gymnasts' Sport Commitment

Re: ID# 06-0191

Your project "Longitudinal Analysis of Gymnasts' Sport Commitment" has been approved following review under the expedited review procedure in accordance with federal guidelines 45 CFR 46.110. For your project, the applicable expedited review category referenced in 45 CFR 46.110 of the federal regulations is:

Research on individual or group characteristics or behavior (including, but not limited to, research on perception, cognition, motivation, identity, language, communication, cultural beliefs or practices, and social behavior) or research employing survey, interview, oral history, focus group, program evaluation, human factors evaluation, or quality assurance methodologies.

You may begin enrolling human research participants in your project. However, you may only engage in recruitment or data collection activities in a given site after you have provided a letter of cooperation from that site to the IRB office. If you modify your project in a way that increases the physical, emotional, social, or legal risk to the participants or you change the targeted participants, you should notify the Human Participants Review Committee in the Office of Sponsored Programs before continuing with the research.

Your project must be reviewed annually and therefore this approval will be active until 31 March 2008. You will receive a reminder and Annual Review/Closure form approximately 10 months from now asking for an update on your project. However, you are responsible for seeking continuing IRB approval for your project, whether you receive a reminder or not, and may not enroll any new subjects beyond the expiration date without continuing approval.

If you leave the university and/or complete the project before that time, please complete the Project Closure form at that point (available at http://www.uni.edu/osp/grants/policies.htm) and submit it to the Human Participants Office.

If you have any further questions about the Human Participants Review policies or procedures, please contact me at Larry.Hensley@uni.edu, or Anita Kleppe, the IRB Administrator, at 319.273.6148 or anita.kleppe@uni.edu. Best wishes for your project success.

cc: Institutional Review Board
Dear Coach,  

My name is Dr. Windee Weiss. I am a faculty member at the University of Northern Iowa in the School of Health, Physical Education, and Leisure Services. My research assistant, Heather DeWaard, and I are writing to seek your cooperation for our research project.

The goal of my project is to understand gymnasts' thoughts and feelings about competing in gymnastics. Specifically, I am interested in how gymnasts' motivation may vary with age and competitive level and the impact this has on their continued involvement. My hope is to continue this research project over the course of the next five years to follow changes in sport commitment and the role of parents and coaches.

To answer these questions, I am requesting that competitive gymnasts, who are at least 8 years of age and been competing on your team for a minimum of one year (level 4 -10), complete a questionnaire before or after one scheduled practice, whichever is more convenient for you and your gymnasts. Having experience as a coach myself, I am aware of the many time demands that coaches and athletes must juggle. We would like to collect data between May and September of 2007 when your schedules are not as hectic. So, I want to ensure that your and your gymnasts' involvement is as brief as possible. Your gymnasts will need about 40 - 60 minutes to complete the questionnaire. Code numbers will be used to ensure confidentiality of each athlete's responses. Results from the questionnaire will be reported for the entire sample, not for specific teams. I would also like to ask you to complete a brief questionnaire about each gymnast you coach participating in this study. I estimate it will take you about 2 minutes to complete the questionnaire for each gymnast.

A secondary purpose of this study is to explore the thoughts and feelings of the parents of these gymnasts about their daughter's participation. We would like to seek cooperation from your team parents to also participate in this study. If convenient for you, we would like to organize a team parents meeting in which we could introduce our study and invite them to participate. If this is not possible, we may solicit these parents through the mail.

Your cooperation in this project is sincerely appreciated. The information gathered through this project will help coaches understand how athletes think and feel about their experiences in sport.

I will be calling you soon to answer any questions you might have and to find out if you are interested in participating in this study. If you wish to contact me first, please feel free to do so. Thank you for your consideration.

Sincerely,

Windee M. Weiss, Ph.D.  
Assistant Professor, Physical Education Division  
(319) 273-2011  
windee.weiss@uni.edu

Heather DeWaard  
Graduate Research Asst.
Dear Parent,

My name is Dr. Windee Weiss. I am a faculty member at the University of Northern Iowa in the School of Health, Physical Education, and Leisure Services. My research assistant, Heather DeWaard, and I are writing to seek your cooperation for our research project.

As a coach and former competitive gymnast, I am interested in the sport experiences of young female gymnasts. The goal of my project is to understand gymnasts' thoughts and feelings about competing in gymnastics. Specifically, I am interested in how gymnasts' motivation changes with increasing age and competitive level and the impact this has on their continued involvement. My hope is to continue this research project over the course of the next five years to follow changes in sport commitment and the role of parents and coaches.

To answer these questions, I am requesting that you attend the Team Parents meeting organized by your head coach. We are interested in your thoughts and opinions about this exciting sport. The questionnaire will take about 20 minutes of your time to complete. Code numbers will be used on the questionnaire, thereby ensuring confidentiality of your responses. Once we have organized your answers along with those of your daughter's, all identifiers will be removed from both questionnaires. All research findings and data will be presented for the entire sample. Findings will not be examined with regard to individual teams.

Your cooperation in this project is sincerely appreciated. The information gathered through this project will help coaches and parents understand how athletes think and feel about their experiences in gymnastics.

If you have any questions or wish to contact me, please feel free to do so. Thank you for your consideration.

Sincerely,

Windee M. Weiss, Ph.D.
Assistant Professor, Physical Education Division
University of Northern Iowa
(319) 273-2011
windee.weiss@uni.edu

Heather DeWaard
Graduate Research Asst.
Invitation to Participate: Your child has been invited to participate in a research project conducted through the University of Northern Iowa. The University requires that you give your signed agreement to allow your child to participate in this project. The following information is provided to help you make an informed decision whether or not to participate.

Nature and Purpose: The purpose of this study is to find out what influences your daughter's sport enjoyment and commitment, and if these influences are different for gymnasts of various ages and competitive levels.

Explanation of Procedures: At a practice, your child will answer a questionnaire asking them to describe their sport participation experiences. Most of the items ask about your child's commitment to competitive sport, but they will also be asked about their relationships with parents, coaches, teammates, and best friends. Your child will also be asked about how much he/she has put into their sport participation, perceptions of his/her ability, and what he/she likes and dislikes about competitive sport. Your child will spend about 45 minutes in one session to answer all of the questions. At the completion of the study, the data will be kept in a locked file cabinet in a locked office to which only I and my research assistant will have access.

Discomfort and Risks: Risks are minimal and include a minor inconvenience and breach of confidentiality.

Benefits: There are no direct benefits to your child for participating in this research study. The study may help us understand the experiences of athletes of various ages and competitive levels.

Confidentiality: Information obtained during this study which could identify your child will be kept strictly confidential. The information may be published in an academic journal or presented at a scholarly conference. We are anticipating collecting data over the course of the next five years, thus data obtained in this study may be used in subsequent studies.

Right to Refuse or Withdraw: Your child's participation is completely voluntary. She is free to withdraw from participation at any time or to choose not to participate at all, and by doing so, your child will not be penalized or lose benefits to which she is otherwise entitled.

Questions: If you have questions about the study you may contact or desire information in the future regarding your child's participation in the study generally, you can contact (Dr. Windee M. Weiss) at 319-273-2011 at the School of Health, Physical Education, and Leisure Services, University of Northern Iowa 319-273-5958. You can also contact the office of the Human Participants Coordinator, University of Northern Iowa, at 319-273-6148, for answers to questions about rights of research participants and the participant review process.

I am fully aware of the nature and extent of my child's participation in this project as stated above and the possible risks arising from it. I hereby agree to allow my son/daughter to participate in this project. I have received a copy of this form.

(Signature of parent/legal guardian)   (Date)

(Printed name of parent/legal guardian)

(Printed name of child participant)

(Signature of Primary Investigator)   (Date)
UNIVERSITY OF NORTHERN IOWA - HUMAN PARTICIPANTS REVIEW
INFORMED CONSENT - ATHLETES (18 years of age)

Project Title: Longitudinal analysis of gymnasts' sport commitment

Name of Investigator(s): Dr. Windee M. Weiss and Heather DeWaard

Invitation to Participate: You are invited to participate in a research project conducted through the University of Northern Iowa. The University requires that you give your signed agreement to participate in this project. The following information is provided to help you make an informed decision whether or not to participate.

Nature and Purpose: The purpose of this study is to find out what influences your sport enjoyment and commitment, and if these influences are different for athletes of various ages and competitive levels.

Explanation of Procedures: At a practice, you will answer a questionnaire asking you to describe your sport participation experiences. Most of the items ask about your commitment to competitive sport, but you will also be asked about your relationships with your parents, coaches, teammates, and best friend. You will also be asked about how much you have put into your sport participation, perceptions of your ability, and what you like and dislike about competitive sport. You will spend about 45 minutes in one session to answer all of the questions. At the completion of the study, the data will be kept in a locked file cabinet in a locked office to which only I and my research assistant will have access.

Discomfort and Risks: Risks are minimal and include a minor inconvenience and breach of confidentiality.

Benefits: There are no direct benefits to you for participating in this research study. The study may help us understand the experiences of athletes of various ages and competitive levels.

Confidentiality: Information obtained during this study which could identify you will be kept strictly confidential. The information may be published in an academic journal or presented at a scholarly conference. We are anticipating collecting data over the course of the next five years, thus data obtained in this study may be used in subsequent studies.

Right to Refuse or Withdraw: Your participation is completely voluntary. You are free to withdraw from participation at any time or to choose not to participate at all, and by doing so, you will not be penalized or lose benefits to which you are otherwise entitled.

Questions: If you have questions about the study or desire information in the future regarding your participation or the study generally, you can contact (Dr. Windee Weiss) at 319-273-2011 or at the School of Health, Physical Education, and Leisure Services, University of Northern Iowa 319-273-2840. You can also contact the office of the Human Participants Coordinator, University of Northern Iowa, at 319-273-6148, for answers to questions about rights of research participants and the participant review process.

Agreement:

I am fully aware of the nature and extent of my participation in this project as stated above and the possible risks arising from it. I hereby agree to participate in this project. I acknowledge that I have received a copy of this consent statement. I am 18 years of age or older.

(Signature of participant) (Date)

(Printed name of participant)

(Signature of investigator) (Date)
University of Northern Iowa  
Human Participants Review  

Informed Assent

Project Title: Longitudinal Analysis of Gymnasts' Sport Commitment  

Name of Principal Investigator(s): Dr. Windee Weiss and Heather DeWaard

I, __________________, have been told that one of my parents/guardians has given his/her permission for me to participate in a project about my thoughts, feelings, and perceptions about competitive gymnastics.

We are interested in what you enjoy and what you dislike about gymnastics, as well as the role of your coaches, parents, and teammates in your gymnastics experiences. Gymnastics is a very demanding sport and we would like to know why you keep participating and training so many hours year around.

I understand that my participation is voluntary. I have been told that I can stop participating in this project at any time. It will take me about 45 minutes to complete the questions, and my name will not be linked to my answers. If I choose to stop or decide that I don’t want to participate in this project at all, nothing bad will happen to me. My participation on this team will not be affected in any way.

__________________________  ____________________
Name  Date

__________________________  ____________________
Signature of Investigator  Date
Project Title: Longitudinal analysis of gymnasts' sport commitment

Name of Investigator(s): Dr. Windee M. Weiss and Heather DeWaal

Invitation to Participate: You are invited to participate in a research project conducted through the University of Northern Iowa. The University requires that you give your signed agreement to participate in this project. The following information is provided to help you make an informed decision whether or not to participate.

Nature and Purpose: The purpose of this study is to find out what influences your sport enjoyment and commitment, and if these influences are different for athletes of various ages and competitive levels.

Explanation of Procedures: You will be asked to answer a questionnaire asking you to describe your experiences and beliefs about competitive gymnastics. Most of the items ask about your commitment to your daughter’s gymnastics participation, whereas other items focus on your social support behaviors for your daughter. You will also be asked about how much you have put into your daughter’s gymnastics, and what you like and dislike about competitive gymnastics. You will spend about 30 minutes in one session to answer all of the questions. At the completion of the study, the data will be kept in a locked file cabinet in a locked office to which only I and my research assistant will have access.

Discomfort and Risks: Risks are minimal and include a minor inconvenience and breach of confidentiality.

Benefits: There are no direct benefits to you for participating in this research study. The study may help us understand the experiences of athletes of varying ages and competitive levels.

Confidentiality: Information obtained during this study which could identify you will be kept strictly confidential. The information may be published in an academic journal or presented at a scholarly conference. We are anticipating collecting data over the course of the next five years, thus data obtained in this study may be used in subsequent studies.

Right to Refuse or Withdraw: Your participation is completely voluntary. You are free to withdraw from participation at any time or to choose not to participate at all, and by doing so, you will not be penalized or lose benefits to which you are otherwise entitled.

Questions: If you have questions about the study or desire information in the future regarding your participation or the study generally, you can contact (Dr. Windee Weiss) at 319-273-2011 or at the School of Health, Physical Education, and Leisure Services, University of Northern Iowa 319-273-2840. You can also contact the office of the Human Participants Coordinator, University of Northern Iowa, at 319-273-6148, for answers to questions about rights of research participants and the participant review process.

Agreement:

I am fully aware of the nature and extent of my participation in this project as stated above and the possible risks arising from it. I hereby agree to participate in this project. I acknowledge that I have received a copy of this consent statement. I am 18 years of age or older.

(Signature of participant) (Date)
(Printed name of participant)
(Signature of investigator) (Date)
UNIVERSITY OF NORTHERN IOWA- HUMAN PARTICIPANTS REVIEW
COACHES' INFORMED CONSENT

Project Title: Longitudinal analysis of gymnasts' sport commitment

Name of Investigator(s): Dr. Windee M. Weiss and Heather DeWaard

Invitation to Participate: You are invited to participate in a research project conducted through the University of Northern Iowa. The University requires that you give your signed agreement to participate in this project. The following information is provided to help you make an informed decision about whether or not to participate.

Nature and Purpose: The purpose of this study is to find out what influences your sport enjoyment and commitment, and if these influences are different for athletes of various ages and competitive levels.

Explanation of Procedures: You will be asked to complete 10 questions about each of the athletes on your team. The questions are designed to tap motivated behaviors such as effort and persistence and your perceptions of their competence. You will spend about 2 minutes per athlete answering the 10 items. At the completion of the study, the data will be kept in a locked file cabinet in a locked office to which only research team members will have access.

Discomfort and Risks: Risks are minimal and include a minor inconvenience and breach of confidentiality.

Benefits and Compensation: There are no direct benefits to you for participating in this research study. The study may help us understand the experiences of athletes of varying ages and competitive levels.

Confidentiality: Information obtained during this study which could identify you will be kept confidential. The summarized findings with no identifying information may be published in an academic journal or presented at a scholarly conference. We are anticipating collecting data over the course of the next five years, thus data obtained in this study may be used in subsequent studies.

Right to Refuse or Withdraw: Your participation is completely voluntary. You are free to withdraw from participation at any time or to choose not to participate at all, and by doing so, you will not be penalized or lose benefits to which you are otherwise entitled.

Questions: If you have questions about the study you may contact or desire information in the future regarding your participation or the study generally, you can contact (Dr. Windee Weiss) at 319-273-2011 at the School of Health, Physical Education, and Leisure Services, University of Northern Iowa 319-273-2011. You can also contact the office of the Human Participants Coordinator, University of Northern Iowa, at 319-273-6148, for answers to questions about rights of research participants and the participant review process.

Agreement:

I am fully aware of the nature and extent of my participation in this project as stated above and the possible risks arising from it. I hereby agree to participate in this project. I acknowledge that I have received a copy of this consent statement. I am 18 years of age or older.

(Signature of participant) ___________________________ (Date)____________________

(Printed name of participant) _______________________ _______________________

(Signature of investigator) ___________________________ (Date)__________________
APPENDIX C

DATA COLLECTION VERBAL SCRIPTS

DIRECTIONS TO PARENTS
First of all, I would like to thank each of you for agreeing to participate in my study. I really appreciate it. So, thank you!

Let's get started. Flip to page one. This is a consent form, which basically tells you what you will be doing. You have the right to stop completing this questionnaire at any time, and that your answers will be kept confidential. That is, your coaches, parents, and teammates will not know how you answered these questions, only me and my research assistant. Please read the one page and, if you want to continue with the questionnaire, please sign your name at the bottom and write in the date. (verbalize the date)

Now, flip over to page 2. Follow along as I read at the top (read instructions). There are no right or wrong answers, these questions are just asking your opinion about your experiences. So, let's do the second example item (same instructions as above). Do you have any questions? Please feel free to ask for assistance if you get confused or don't understand the question.

Go ahead and begin. Please just continue answering all the questions until you have reached the end of the questionnaire. Later, just follow the directions given for each set of questions. Be sure to only mark one answer per question and do not skip any questions. Take your time. Please try to be honest. Remember, no one will see your answers except for me and my advisor. Okay, go ahead and get started and feel free to ask me for help if you need it.

(Once I see that one or two have completed the questionnaire)

When you finish answering all the questions, sit quietly until everybody has finished. If you like, you may color on and keep the cover page. I will collect all the questionnaires once everybody is done.

(note to me: Meander over to those who are done and ask if they have gone back through to make sure all items are answered. Say that it is important that there are no blank answers.)
First of all, thank you all for taking time out of your busy schedules to meet with us at this team parent meeting. We really appreciate it.

I am Windee Weiss, I'm an assistant professor at the University of Northern Iowa in Sport Psychology. This is Heather DeWaard, one of my graduate research assistants.

The purpose of this portion of our study is to gain insight on parental attitudes and thoughts about their daughter's competitive gymnastics experience. We want to know what mom and dad think about this sport. So, let's get started:

If you will turn to the first page of your packet, this is the informed consent form. Please read this consent form, and if you agree to complete out questionnaire packet, sign and date the consent. If you have any questions regarding the study, feel free to ask. Please also print your daughter's name on the consent form where indicated- this will help us line up your answers with those of your daughter's.

Your participation is voluntary, and you may discontinue at any time. Your head coach will have no idea who has agreed to participate and who has not. This will not influence you or your daughter's standing in this gym. Answers will be kept confidential.

Okay, now that everyone has signed their consent form- go ahead and start completing the questionnaire. Please answer as honestly as possible. There are about 50 questions total for you to complete. If you need clarification on an item, do not hesitate to ask.

Thank you again.
DIRECTIONS TO PARENTS

May 14, 2007

Dear Parents,

Thank you for your time, your participation is greatly appreciated. This study is designed to examine parent and gymnast beliefs about sport commitment. The questionnaire will only take 10-15 minutes, and your participation is completely voluntary.

• Before you begin the questionnaire please read, sign and date the back side of the cover page.

• If you have more than one daughter on the gymnastics team, please think of your highest level daughter when completing the questionnaire.

• Please do not discuss these questions or your answers with your daughter until you have completed the survey.

• You only have to fill out one questionnaire per household, you and your spouse may complete the questionnaire together, however, if you do, please indicate everyone who helped complete the survey on the demographic questions at the end.

• Please write the name of your daughter on the cover page of the questionnaire, so we are able to match you with your daughter. After we match your questionnaire to your daughter’s, your names will be removed and a code will be used instead, so there is no way to link your name to your questionnaire.

• Once you have completed the questionnaire, please put it in the self-addressed envelope and mail back as soon as possible.

Thank you again for taking time to complete this survey.

Sincerely,

Heather DeWaard
Graduate Assistant

Windee M. Weiss, Ph.D.
Asst. Professor