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An analysis of perceptions of gymnasts and former gymnasts toward participating in gymnastics training

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**AN ANALYSIS OF PERCEPTIONS
OF GYMNASTS AND FORMER GYMNASTS TOWARD PARTICIPATING IN
GYMNASTICS TRAINING**

MASTER'S PROJECT

**Submitted to the Department of Elementary Education,
University of Dayton, in Partial Fulfillment of the Requirements for the Degree
Master of Science in Education**

by

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CHAPTER I

INTRODUCTION TO THE PROBLEM

Purpose of the Study

What is sport? Is it recreation? Competition? An industry? A science? A business? A diplomatic tool? Society's glue? A conversation starter? A trivia night topic? The answer is yes to all these questions and there may be more questions and comments that could be added to this variety of descriptions. Wong and Bridges concur that youth recreation activities has become an area of interest for research(See O'Dell and Tietjen, 1997). They believe there are two major questions being asked by researchers. First, what affect does youth recreation participation have upon the physical, social , emotional, and cognitive development of participants? Secondly, is there value as a result of youth recreation activity participation? This research project will mainly discuss the sport of gymnastics. Perceptions of both currently participating female gymnasts and former gymnasts at a competitive level will be researched. Benefits of participating, reasons for participating, concerns toward participating and the relationship between academics and sport will be examined. The author hypothesizes that there will be no significant difference between the current gymnasts and the former gymnasts.

Background to the Problem

Our society places a great deal of emphasis on sports. Boys and girls as young as three years old compete in sports while the median age for involvement in organized sport programs is eight for boys and nine for girls(Ulrich, 1987). In the United States, organized athletic programs involve at least 20 million children and adolescents each year,

with more than two million participating in all levels of competitive gymnastics (Mandelbaum,1993). The sports demography of America is changing as well. Women of all ages are taking to sport in record numbers according to national sports studies done in 1993(Barbano,1998). Hilliard(1996) reports that in 1972, one in twenty-seven girls played high-school varsity sports. In 1996, that number was one in three confirming the growth of sports in the lives of girls. Blinde(1989) suggests that we know very little about how the changes in women's sport have affected the sport experiences of the female athlete or how the female athlete differs from the female athlete of a decade ago. However, 'The Wilson Report' discovered 82% of girls are currently involved in some form of sports or fitness activity, and the vast majority found it a pleasureable and beneficial experience(1988).

The relevance of sports for women is supported by a National Girls and Women in Sports Day held every February. This is considered a day to call attention to the positive influence of sports participation, to acknowledge past and present sports achievements, and to advance the struggle for equality and access for women in sports. Major corporations have already changed their advertising from portraying women in stereotypical ways to recognizing women as serious athletes(Lopiano, 1996).

Lopiano(1996), Director of the Women's Sports Foundation, states that the reason we want an equal opportunity for our daughters to play sports is so they can derive the psychological, physiological and sociological benefits of sports participation. "Sport has been one of the most important socio-cultural learning experience for boys and men for many years. Those same benefits should be afforded our daughters"(p.1E). Another indication of the importance of sports in the lives of women and girls is the passing of Title IX, the federal law prohibiting discrimination in varsity interscholastic and intercollegiate athletics. This breakthrough will continue to produce generations of women who will pursue sports as well as fitness activities(Lopiano, 1996).

The sport of gymnastics seems to be increasing with popularity. Scanlan(1997) stated that enrollment at gymnastics clubs across the country is booming with the impact of the women's Olympic Gold Medal in 1996. In fact, U.S. News and World Report declares women's gymnastics, not fully integrated until 1952, is now the most watched event in the Olympics(1995). A club owner in Arizona comments, "I think the gold medal team is great. Their gold medal has made boys and girls more enthusiastic about exercise and gymnastics"(Scanlan, 1997, p.8). Considering the growing interest in the sport of gymnastics, the author hopes this research project will increase understanding of the feelings, opinions, and perceptions of the female gymnast.

The positive benefits resulting from sports is evident in the review of literature. Physical activity or movement skills can provide the necessary release of energy so essential to a child's life. Moore(1986) reports that values are gained in sports such as the winning of friends, respect and trust. Additionally, sports can involve the gaining of satisfaction, confidence and the knowledge of skills. Good health, fitness and happiness are said to be by-products of participating in athletics as well. Lulla(1996) states that benefits derived from gymnastics training include increased flexibility, strength, balance, coordination, and agility. In addition, gymnastics challenges each participant individually.

Scanlan(1996), President of USA Gymnastics, concurs that gymnastics teaches important life skills such as focus, determination, goal setting and sportsmanship. She also states that even if gymnastics classes do not lead to the Olympics, kids are better off for having participated in gymnastics. "They will be better off as athletes in other sports; better off for the discipline they learn through gymnastics; and better off for having participated in some way in the Olympic spirit and dream"(p.24). Lulla (1996) concludes that gymnastics is the foundation of all sport because it teaches children how to control their bodies. Skills included in a basic gymnastics curriculum are running, skipping, rolling, swinging, turning, jumping, and landing.

The reasons for involvement in sport will be discussed within this research project. The literature identifies the desire for action, excitement, fun, and competitive challenge as important reasons for children's sport participation(Lewthwaite, 1990). Children and adolescents often have multiple motives for participation in organized sport. "Having fun" is rated as the most important motive for both boys and girls(Bunker, Duncan, Freedson, Greenberg, Oglesby, and Sabo, 1997). Girls primarily participated in sports for fun and friendship compared to boys who generally valued achievement and status(Chambers, 1991). Athletes' goals and objectives vary when participating in gymnastics. Goals may include to participate in a weekly gymnastics class for fun and recreation, to compete for a high school team and to earn a college scholarship(USA Gymnastics, 1997, online).

Chambers(1991) states that the youth sport experience begins with an interest in participation by children, with and without parental pressure. Studying this concept more specifically, Gould, Feltz, and Weiss (1985) surveyed over 1,500 youths on participation motivation. Their data showed that the primary reasons for adolescent athletic involvement are: 1. fun, 2. skill development, 3. excitement and personal challenge, 4. achievement and status, 5. fitness, 6. energy or tension release, and 7. friendship.

Along with the popularity of gymnastics, have been comments that have raised concern. Child abuse? That's the label that was affixed to women's gymnastics by sportswriters(Press, 1992). Women's gymnastics provides a useful framework for viewing worrisome trends in other competitive youth sports(Tofler, Stryer, Micheli, and Herman, 1996). The sport, "steals a kid's life," was one expression stated in The New York Times article. These exclamations were made mostly considering the demands on an elite gymnast. The elite gymnast is said to focus all her energy on her body and her performance(Press, 1992). The highly organized and restrictive gymnastics programs, as well as family pressures and expectations, are viewed as impeding the athlete's ability to think or act independently(Coakley, 1993). As these youngsters mature, some may consider what is happening to them is unhealthy. The young athlete may perceive her

entire identity and self-worth as depending on her participation and success in gymnastics(Gould, 1993).

In an issue of Women's Sports and Fitness(Roney, 1996), is a letter from a parent stating her opinion that not all gyms are bad. She adds that gymnastics offers the girls an opportunity to travel, teaches them how to win and how to accept a low score. This parent continues to express that there are problems in the sport caused by parents or coaches. She acknowledges that there is or may be parental pressure in all sports. She adds, "The most important reason my daughter participates in gymnastics is that it's fun for her"(p.14).

Mosley(1997), president of the Women's Sports Foundation, reports that the organization receives more than 500 calls each week questioning the importance and appropriateness of sports in girls' lives. There is also the public perception of recreation programs for youth stating that the programs are not as good as they should be. Some examples have been that there are too many instances of children being pushed too hard in sports, with negative results(O'Dell and Tietjen, 1997). One must consider the learning environment as an important aspect for the athlete. Professional coaches should be concerned with the whole child, not only with their physical progress.

Massimo(1996) states that the attitude of the coach has a direct relationship to the psychological factors associated with safety in the sport. The training environment should include positive reinforcement. This coaching approach not only provides rewards for efforts on an on-going basis, but at the same time enhances positive self esteem. Consequently, those who train in a negative training atmosphere and who are constantly subjected to put-downs, ridicule, sarcasm, and demeaning interactions are more distracted and potentially in emotional stress. Massimo asserts that these youngsters are accidents waiting to happen because they are focused on the emotional messages they are receiving rather than on the physical instruction. This study will include some general feelings and

opinions toward the gymnasts' coaches and coaching techniques which are considered an important aspect of the female athletes' experience.

Another topic that is considered an area of concern for those participating in gymnastics is that of disordered eating. Although gymnasts seem to be at increased risk for eating-related maladies, relatively few investigations have examined these concerns in gymnasts(Calbrese, 1985). A part of this study will indicate if former gymnasts and current gymnasts actually perceive that gymnastics can create an eating disorder. There have been gymnasts such as Cathy Rigby and Christy Henrich who have suffered from eating disorders and it made national news(Mosley, 1997). In sports like gymnastics, body composition may limit an athlete's ability to perform skills and maintain aesthetic beauty. The pressure to maintain a thin and muscular body appearance is said to encourage atypical eating behaviors, which may lead to a frank eating disorder(Yeager, Agostini, Nattiv, and Drinkwater, 1993). Coaches can play a key role in emphasizing appropriate nutrition and not just body weight to avoid disordered eating(Hutchinson, 1996). Gymnasts perceptions of some of these concerns will be gained from the present study.

Evidence from several sources supports the expectation that participation in interscholastic sports and academic achievement are related. The expectations are far from consistent however, according to Soltz(1986), author of *Athletics and Academic Achievement: What Is the Relationship?* While there are reasons to believe that athletics and achievement are related, the precise nature of the relationship must be further clarified and refined. Soltz found that students competing in interscholastic athletics maintain significantly higher grades, on the average, than those not involved in competitive sports. Green(1996) reports that elementary teachers worried about Shannon Miller, an Olympic gymnast, missing school and spending so many hours doing gymnastics. The teachers thought gymnastics training interfered with her academics. However, they discovered that her grades were always among the best in the class. Chambers(1991) confirms that studies

show that athletic participation, when combined with school service and leadership activities, can increase academic achievement. Perceptions of academic achievement and the relationship to participating in gymnastics will be gained from the present research study.

Sport has always been enmeshed in social history(Wrisberg, 1996). What is participating in sports doing for the athlete? To them? Or, more specifically, how is the quality of their lives being affected by experiences in competitive sport? Wrisberg(1996) indicates that little attention has been given to determining the influence of competitive athletics on the life quality of participants. Furthermore, literature was found to be more devoted to the sport experiences of men than those of women. This research project will address what the female gymnasts' perceptions are towards involvement in the sport of gymnastics.

Statement of the Problem

The purpose of this study is to analyze the perceptions of current gymnasts and former gymnasts toward participating in the sport of gymnastics.

Hypothesis

There will be no significant difference in the perceptions of gymnasts and former gymnasts toward participation in gymnastics.

Assumptions

In order to carry out this study, a five-point likert scale will be used to measure gymnasts' and former gymnasts' perception in gymnastics. The author of this study assumes that the gymnasts will honestly answer the likert scale questionnaire.

Limitations

The author is faced with some limitations in conducting this research. One limitation is the various backgrounds and levels of training for each gymnast. The maturity level of the subjects will vary as well.

Another limitation of the study is the inability to survey more gymnasts and former gymnasts. The limited sample size in each group makes generalizing to a larger population difficult.

The prior involvement of the researcher in gymnastics makes it possible that findings will be viewed from a biased perception.

DEFINITION OF TERMS

Gymnastics: A sport in which individuals perform optional and prescribed acrobatic feats which demonstrate strength, balance and body control. Gymnastics encompasses calisthenics and tumbling as well as work on apparatus.

(www.lifetimetv.com/wosport/stage/SPORTS/html/gymnastics.html)

Title IX: The section of the law passed in 1972 prohibiting sex discrimination in federally-funded educational programs, including athletics programs.

Disordered eating: refers to the spectrum of abnormal patterns of eating, including behaviors such as: bingeing and purging or both; food restriction; prolonged fasting; use of diet pills, diuretics, or laxative; and/or thought patterns such as preoccupation with food, dissatisfaction with one's body, fear of becoming fat, and a distorted body image(USA Gymnastics Report, 1995).

Anorexia nervosa: an eating disorder in which individuals have a dramatic weight loss from continuous self-starvation or from severe self-imposed dieting in an attempt to attain the perfect body and ultimate thinness(Burckes-Miller and Black, 1988).

Bulimia: sends victims into a potentially fatal cycle of binge eating and vomiting(Ryan,1992).

The Women's Sports Foundation: a national non-profit educational established in 1974,as a member-based organization dedicated to increasing opportunities for girls and women in sports and fitness through advocacy, recognition and grants.
(<http://www.lifetimetv.com/WoSport>).

USA Gymnastics: Governing body for the sport of gymnastics.

CHAPTER II

REVIEW OF THE RELATED LITERATURE

Positive Aspects of Athletic Participation

The benefits of maintaining a fit and active lifestyle are well known and media coverage is at an all-time high because of public demand for information. The fact that HMOs are shifting toward prevention through exercise as a way to cut medical costs is an added help in encouraging women to participate in sports.

The mother of Shannon Miller, the most decorated USA gymnast in history, is quoted expressing the many positive aspects of participation in gymnastics: "Gymnastics has helped Shannon both mentally and physically. Mentally she is focused, sets goals, remains organized and can think on her feet"(Miller, 1996, p.10). These attributes are helpful and useful for all of life. A title to an article that appeared in The Detroit News in May, 1997 reads, 'Coaches, athletes and parents say gymnastics teaches lifelong lessons.' A 17-year old gymnast comments that the sport has taught discipline, time management, and so many other lessons about life that can be used forever. She is also class salutatorian with a 3.993 grade-point average(Barr, 1997). Yaffe(1982) writes that students who spend three hours or more each day practicing learn to organize their time. "For the first time, " said the mother of a swimmer, "my daughter learned to get things done. Swimming five hours a day, she learned that, unless she got organized, she'd never make it"(p.179).

Benita Fitzgerald Mosley, president of the Women's Sports Foundation and three time Olympian answers questions in an article appearing in Women Sports and Fitness. Why is it important for girls to play sports? She states how sports provides an important socio-cultural learning environment that teaches children confidence and self esteem. She

adds that without these attributes, children can grow up as underachievers who doubt their abilities to tackle difficult projects and learn new skills(1997).

The relationship between self-esteem and physical activity in female children and adolescents has been studied by the Melpomene Institute(Bunker, et al.,1997). There were three studies conducted that found a strong positive relationship between physical activity and self-esteem. Younger girls derived positive self-esteem through challenge, achievement in sports, risk-taking experiences and skill development. Older girls found these same sources were important to their self esteem. They were gaining esteem from the approval of others and through a belief that girls are capable of playing sports well. Likewise, providing challenge, risk taking and skill development are found specifically in the sport of gymnastics. These characteristics are evident for anyone that has observed or participated in gymnastics. Additionally, McAuley(1994) reported that self-esteem development was one of several positive psychosocial outcomes related to exercise and physical activity participation. He reported that 69 percent of the studies reviewed supported a positive relationship between physical activity and psychological well-being.

The self-concepts of adolescent females were found to be enhanced for those involved in an exercise program, particularly weight and strength training(Gill, 1993). The sport of gymnastics most often has strength training incorporated into the workouts. Being physically strong is a practical benefit in many day to day activities such as carrying grocery bags or suitcases, moving furniture, digging a garden, and mowing the lawn(Bunker, et al., 1997).

Although literature supports that there is a concern with eating disorders developing in the female gymnast, there is also the notion that sport can act as a deterrent to eating disorders. Eating disorders usually strike people who suffer from depression and low self-esteem(Mosley, 1997). Girls who participate in athletics benefit from higher than average levels of self-esteem. Additionally, women who were active in sports and

recreational activities as girls, generally have increased confidence and self-esteem and a more positive body image(Mosley, 1997).

The skills one learns in sports can lead to the development of important social skills. People form new acquaintances, consolidate old friendships and learn how to cooperate and negotiate while playing sports(Bunker,et al., 1997). Sports programs can be a valuable source of school spirit. Through participation, students develop a sense of belonging to their team and to the school community(Skinner, 1988). However, many aspiring young gymnasts devote nearly all of their time to the sport and may thereby suffer from social isolation and a lack of opportunities for social development, according to Coakley(1993).

Hilliard, a former president of the Women's Sports Foundation, makes a general statement that the growing exposure to team sports provides the opportunity for girls to practice networking skills and receive the kind of training that brings success in organizations(1996). Sport is where boys have traditionally learned about teamwork, goal-setting, the pursuit of excellence in performance and other achievement-oriented behaviors. These are critical skills necessary for success in the workplace(Lopiano, 1996, online). Mosley(1997) concurs that successful athletes are skilled at displaying self-confidence even if they don't actually feel it and so are good employees.

The president of USA gymnastics supports the relation of sport and the workplace stating that the devotion and dedication learned in the gym is often transferred to school and work life where gymnasts can almost always be found at the top of their class or the top of the workplace team(Scanlan, 1997). According to the Miller Lite Report on Sports and Fitness in the Lives of Working Women(1993) done in cooperation with the Women's Sports Foundation, many working women are using sports and fitness activities to develop self-esteem and maximize their potential on the job. Consequently, the lessons of sport contribute to being successful in business(Lopiano, 1996).

Another example of the relationship of sports and organizations is apparent in the concept of winning and losing. According to Lopiano(1996), sport gives experience on how to win graciously and accept defeat without blowing the experience out of proportion. Learning to separate the outcome of a game or performance from worth as a person is an important lesson. A bad practice does not make a bad person. She adds that this lesson is critical for all workers.

One past researcher reveals how stress may not be viewed only as a negative aspect but as a positive aspect in sports. Pressure appears to be necessary for us to succeed in some of life's endeavors. A certain amount of stress is imperative for successful athletic performance, according to research by Daniel Landers(see Nadel, 1995). Landers conducted brain-wave experiments on 34 competitive archers during practice and competition. The brain waves monitored were alpha waves, which increase with relaxation and decrease with stress. Landers found that high alpha levels found in a relaxed state, impaired athletic performance just as much as high levels of distress indicated by low alpha scores. Finding the "right amount of stress" was the key to excellent results. It is said that there is no optimum stress level for everyone, each one of us has a "personal best"(Nadel,1995). O'Dell and Tietjen(1997) concur that some stress and anxiety are present in all recreational sports. A certain amount of anxiety is positive for youth because they will be exposed to it throughout life. Anxiety can also serve as a motivator.

Relieving stress can be a benefit of participation in sports. Based on longitudinal observations, Brown and Siegel(1988) concluded that exercise was a viable technique for stress reduction. For adolescents participating in a physical activity training program "exercise does operate as a buffering mechanism between stress, anxiety and depression"(Norris, et al., 1991, p.63).

Participation in sports, especially during the at-risk hours immediately after school, also keeps youth out of trouble. They are too busy to look for trouble and too tired to get into it(Mosley, 1997). The governing body of gymnastics and The National Gymnastics Foundation is in the process of implementing a pilot program which brings gymnastics to at-risk youth. Recreational programs, especially gymnastics, which requires focus and discipline to succeed, are important deterrents to substance abuse, crime and teen pregnancy(Massimo, 1996).

Athletes' necessary concern with physical fitness means that fewer of them are tempted to indulge in drugs and liquor according to Yaffe(1982). One track student at a high school in Colorado says, "There's never any question about alcohol or drugs; it's so bad for you physically. No one pushes you to get drunk after a competition because you know tomorrow you have to go out and practice"(p.179). One assistant superintendent says, "If kids aren't working and they're not in sports and not highly academic, there's another group waiting to help them occupy their time, the group smoking marijuana" (p.179). Yet another administrator shares his views commenting, "When kids aren't in sports, they drift around town. Right now, with so many parents working full time, we need to have supervised activities for students"(p.179).

Reasons Athletes Participate in Sports

Weiss (1989) states that to children, winning is not the only reason for participation. There are numerous other factors: affiliation being with friends, excitement, challenge of competition, fitness, staying or getting in shape, and fun. In an extensive youth sport study in Michigan, Sapp and Haubenstricker (1978) reported that "having fun" was the reason youth gave most frequently for participating in sports.

Gymnastics is reported as a fun activity(Bowyer, 1996). Bowyer found that students like the opportunity to participate in fun, nonelimination activities where skills

were developed progressively. One reason that gymnastics was one of the most liked activities is that the sport provides the opportunity for individual goal setting. "The Wilson Report: Moms, Dads, Daughters and Sports"(1988) found that girls who participate in sports most often report "fun" as their major motive, with physical, health and social factors frequently mentioned. Parents also see gymnastics as fun. One newspaper(The Plain Dealer, 1996) reports, "Children play sports to have fun. If it's not fun, they'll lose interest and stop playing." Pivarnick(See Press, 1992), an exercise physiologist at Texas Children's Hospital, says that parents need to make sure their childrens' involvement in activities is for the child and not for themselves. He says, "Look in the mirror and ask: 'Do they love to do it, or do they love to do it because I love it when they do?'"(p.23).

Blinde(1989) suggests that the attraction of an athletic scholarship serves as a motivating force for the athlete today. Other extrinsically oriented factors, such as gaining recognition and honors, increasing career chances, and gaining prestige or attention are also considered reasons for participation for the female athlete. Blinde adds that sport is often viewed as an avenue by which the female athlete of today can realize her potential and achieve a sense of self-actualization. In a study of gymnasts, ages 8-16, in a gymnastics program in the Pacific Northwest, it was found that those who perceived themselves as socially competent are more motivated by the affiliation side of athletics. Consequently, if these motives are not met, then these children would be more likely to find another activity that would meet their needs(Klint and Weiss, 1987).

The perceptions of the ways girls benefit from sports is perhaps one reason for parents' supportive attitudes towards their daughters participation in sports. Parents value their daughter's sports experience because it contributes to her physical well-being. They also view sports and fitness activities as building confidence and self esteem. Additionally, parents feel sports promotes teamwork, fosters cooperation, and encourages friendships(The Wilson Report, 1988).

Concerns Toward Participating in Sports

There have been allegations about a disturbing side of the sport. Micheli (see Kennedy, 1996) says, "I tell parents who are concerned that there are two gymnastics: the gymnastics at the elite level, in which 200 girls(nationally), at most, are involved. That level contains the vast majority of the reported abuses. Then there is gymnastics for everyone else. It teaches strength, mobility and flexibility and balance, and gives a sense of self-worth. I'm behind that kind of gymnastics one hundred percent"(p.13).

It has been hypothesized that athletes who participate in sports that emphasize leanness are at greater risk for eating disorders and related problems than those who compete in sports without such emphasis(Sundgot-Borgen and Corbin, 1987). In a study of eating disorder symptoms in female college gymnasts, it was found that these athletes did have concerns about their weight and being thin(O'Connor, Lewis, and Kirchner, 1995). More than half of the gymnasts reported using at least one of the pathogenic weight-control techniques at some time during their lives. Bingeing and vomiting were the most common pathogenic weight-control techniques used, and diuretic use was the least common(Rosen and Hough, 1988). One startling statistic reported by the American College of Sports Medicine found that up to 62% of female gymnasts have an eating disorder. With secrecy and denial part of the syndrome, those figures are quite likely low(The Plain Dealer, 1994). Recent studies also indicate that the preoccupation with weight begins at an early age. The Jacobs Institute of Women's Health reported that 40 percent of third-grade girls said they were dieting to lose weight. Among fifth-graders, that figure climbed to 75 percent(Mosley, 1997).

In another study of high school and college gymnasts, every subject indicated her belief that gymnasts are more concerned about their weight in comparison to most other women the same age(Harris and Greco, 1990). Most respondents reported that they had

become more concerned with their weight in the last few years. Several subjects commented that the pressure to be little and to have a prepubescent figure makes it increasingly difficult to maintain the ideal shape for the sport as one matures. Although this preoccupation with weight might be considered excessive as well as obsessive, these subjects used dangerous forms of weight control behavior less than the gymnasts studied by Rosen and Hough(1988).

One world class gymnast, Kristie Phillips, suffered from bulimia saying it was brought on by the sport's obsession with weight(Ryan, 1992). Ryan reports that other gymnasts competing in the Olympics, including Cathy Rigby and Kathy Johnson were bulimic and overcame it. Johnson, now a network television commentator says, "It will probably shock most of my coaches to learn I ever dealt with this at all. But people are kidding themselves if they think we can ignore the weight issue in our sport"(Ryan, 1992, p. 4E). One theory to keep in mind is that there may be large variations in the emphasis on thinness across different gymnastics subcultures. It is possible, for example, that there is a range of emphasis placed on body weight by different gymnastics coaches that may serve either to prevent or promote disordered eating cognitions or practices(Rosen and Hough, 1988).

Injuries might be considered another concern of gymnastics. Fredricks(1985), a gymnastics coach and member of the United States Gymnastics Safety Association, reports that The National Electronic Injury Surveillance System estimates that from 1975 to 1980, 26,659 head and neck injuries occurred in young(ages 5-14) gymnasts and trampolinists. Some of these accidents resulted in paraplegia. The United States Gymnastics Safety Association and a National Safety Certification Program was created in 1976. Through the program, the gymnastics community could educate its' coaches, ensure safer programs, and aid in legal matters. The Gymnastics Safety Manual was created in October, followed by a safety certification program in 1978. The President's Council on Physical Fitness and Sports commended the gymnastics federation for work in

sport safety education and for becoming the first organized sport to establish Safety Certification of coaches(Fredricks, 1985). These safety standards are in place to help reduce the occurrence of injuries.

As of January 1, 1997, the International Gymnastics Federation, the group that governs international gymnastics competitions, raised the age eligibility by one year for gymnasts entering senior international competition. Now female gymnasts must turn 16 the year they compete at the senior international level, which includes Olympic competition. This was in response to concerns about the effects of elite gymnastics on young women's bodies(Van Anderson, 1997).

The age change may have psychological benefits especially regarding body image issues. For years the picture of the elite female gymnast was the pencil-thin, prepubertal, smaller ideal which promoted eating disorders among gymnasts(See Van Anderson, 1997). Increasing the age of eligibility may create a more realistic image of the body figure for girls at all levels of the sport. The survey given in the present study will identify perceptions of some of these concerns in gymnasts and former gymnasts.

Another concern of participating in sports may relate back to the initial experience. Though there is little research on the direct link between childhood trauma and adult sport phobia, the experts say the anecdotal evidence is overwhelming(Nelson, 1993). Michael Gray,(See Nelson, 1993), professor of physical education at Northern Kentucky University and director of the National Youth Sports Research and Development Center, states "After the first lecture, student after student comes to tell me of a bad fitness experience, usually they've been embarrassed in front of their peers. As a result, they've spent years trying to avoid athletics"(p.32). This awareness is important when dealing with youth in sports. The effects are seen in world-class athletes as well, according to a sports psychology consultant, T. Christian North(See Nelson, 1993). He says that sometimes these athletes have had a childhood experience in which someone, a coach, a family member, a teammate, criticized them in a way that made them feel they

couldn't, or didn't deserve to succeed. They often still believe this later on in life. The effect of such comments may be more of a concern for the female athlete when considering that research shows that girls are more easily influenced by others' opinions than are boys and that they're more susceptible to peer pressure(Nelson, 1993). In the present study, former and current gymnasts will express general feelings and perceptions of their coaches and parents.

The Relationship of Athletics and Academics

Research shows that girls who play sports get better grades and are more likely to graduate from high school than those who do not(Mosley, 1997). Based on a nationwide probability sample of thirty-thousand high school students, a study conducted in the late 1980's revealed that Caucasian female athletes had lower school dropout rate than Caucasian female nonathletes in suburban and rural schools(Bunker, et al., 1997). This study also indicated Caucasian female athletes tend to do better in high school and college, feel more popular, be more involved in extracurricular activities and be more likely to aspire to community leadership than did Caucasian female nonathletes.

The educational and academic benefits of involvement in varsity sports was studied for minority students as well. Hispanic female athletes had a significantly lower dropout rate than did Hispanic female nonathletes-one-third lower. Additionally, Hispanic female athletes were much more likely than their nonathletic counterparts to attend and stay in college.

In an analysis of longitudinal survey data by Hanson and Kraus(See Bunker, et al., 1997), a relationship was found between girls' involvement in high-school sports and achievement in science(e.g., GPA, standardized scores). For Caucasian girls, participation in sports was positively associated with attitudes toward science(ie, perceived relevance of math for one's future occupation) and access to science(i.e., course-taking). However, for

African-American girls, participation in sports was found to negatively influence their achievement in and access to science classes. In contrast, sports participation had no effect on the science experiences of Hispanic girls. The President's Council on Physical Fitness and Sports Report recommends that these findings should be regarded with caution since the data were first collected in 1980(Bunker, et al., 1997).

Another study found that boys and girls from suburban and rural areas who participate in high school sports perform better academically and are more likely to go to college than non-athletes(Sabo, 1998). Skinner (1988) states that sports programs can serve as a foundation to help teach the students strong personal values. The attitude carries over into the classroom, where students understand the importance of extra work, cooperation, and meeting deadlines. Skinner gives an example of a coach and school administrator acknowledging that one of the most important lessons schools teach is that hard work and striving for excellence are essential qualities for success in any endeavor. Sports is one avenue to teach these things.

CHAPTER III

PROCEDURES

A large body of literature suggests many benefits of participation in sports and physical activity. However, the interaction among youth, parents and coaches in recreation activities has been receiving increased attention as more negative results of participation in youth recreation are publicized. The present study will determine if gymnasts' perceptions of the benefits, reasons for participating, concerns toward participating and academic related perceptions are similar to findings in the review of literature. Both currently participating gymnasts and former gymnasts' responses will be analyzed and discussed. No significant difference is expected between the gymnasts' responses.

Subjects

Currently Participating Gymnasts: Sixty-nine(69) female gymnasts presently in gymnastics are part of the sample. The ages span from ten (10) years old to seventeen (17) years old with the mean being 15.8 and a mode of 15 years of age. The ability level varies between subjects. They are all competitive gymnasts, competing at levels 5 through 10 in the USA Gymnastics Organization. The mean level is 7.8 and the mode is level 8. Some gymnasts in the sample participate in both private gymnastics club and high school gymnastics training. Gymnasts representing their high school are 29%(20) of the subjects. The hours of training a week range from 8 hours to 20 hours with a mean of 15.8 hours and a mode of 15 hours weekly. The number of years participating in gymnastics ranges from 3 years to 13 years with mean of 8.1 and a mode of 7 years.

Former Gymnasts: Thirty-seven (37) female gymnasts are part of the sample who have competed in gymnastics in their past. The ages of the subjects range from fifteen

(15) to fifty-four (54) years old. The mean being 28.5 years of age. All gymnasts participated in gymnastics at a competitive level ranging from level 5 through 10, one elite level gymnast and collegiate level gymnasts. Almost half of the subjects, 45.9%(17) competed on a college gymnastics team. Some gymnasts competed in both private gymnastics and high school gymnastics in their past, with 54%(20) having competed in a high school gymnastics program. The hours of training a week range from 6 to 25 hours with the mean hours of training being 14.9 and a mode of 12 hours weekly. The number of years participating in gymnastics ranges from 6 years to 20 years with the mean years being 11.8 and a mode indicating 10 years of experience training in gymnastics.

Setting

Schools, The currently participating gymnasts received their training from private gymnastics schools in Northeastern Ohio. The former gymnasts received their training at private gymnastics schools, high schools and colleges in various states including Ohio, Oklahoma, Texas, Pennsylvania, New York, Arizona, Illinois, Iowa, Michigan, Kentucky, Maryland, Minnesota and Virginia.

Data Collection

Construction of the Data Collecting Instrument, A Likert scale questionnaire was constructed with thirty questions formulated from relevant information found in the review of literature(see Appendix A). The subjects responded on a five-point Likert scale with choices SA, Strongly Agree, A, Agree, U, Undecided, D, Disagree and SD, Strongly Disagree. Additionally, two open ended questions were included in the survey. The questionnaire was pre-tested before actual administration to the subjects. It was reviewed by Dr. Tom Lasley, The University of Dayton as well as Lynn Jaffee, Director of Melpomene Institute, a center for research on girls in sports. Others consulted were

Nancy Marshall Thies, manager of the Athlete Wellness Program for USA Gymnastics, and Dr. Bill Sands, a former gymnastics coach and a University of Utah exercise physiologist. Additionally, the questionnaire was reviewed by an experienced gymnastics coach and owner of a gymnastics school. Modifications were made based on the reviewers comments.

Administration of the Data Collecting Instrument, Subjects who are currently participating in gymnastics were administered the anonymous questionnaire in person at the private gymnastics school where they were receiving their training. The experimenter gave verbal instructions and had the gymnasts work individually to complete the survey. Help in reading questions was provided where needed and, in general, gymnasts finished answering all questions in approximately 30 minutes. They returned the survey promptly upon completion.

Subjects comprising the former gymnasts category were recruited through personal contacts by the author, a former gymnast. Some questionnaires were sent by mail with a self addressed stamped envelope for return. A deadline for return was given on a separate piece of paper inserted with the questionnaire. Some phone calls were made as a follow up after the initial mailing of the questionnaire. Additionally, questionnaires were dropped off or sent to area gymnastics schools for employees that were former gymnasts to participate in this study. All former gymnast surveys were printed on green paper. Response rate is said to be higher when using the color green. Although research in this area is said to be sparse, 80% (8/10) of the experiments reported in a study by Fox, Crask and Kim(1988) concluded that response rate was higher with a green vs. a white questionnaire.

CHAPTER IV

RESULTS

Presentation of Results

The independent samples t-test was performed for each question comparing the currently participating gymnasts and the former gymnasts responses. The design of the instrument was a five point likert rating scale format with responses representing the following: five is strongly agree, four is agree, three is undecided, two is disagree and one is strongly disagree. The null hypothesis states that there is no difference between the two samples. An equal variance was assumed in most statements, however, an unequal variance was assumed when the significant difference was .10 or lower. All calculations were made with a 95% confidence level.

Questions and data are presented in tables determined by the topic of the question. The categories for each table are as follows: 1. Benefits of Participating, 2. Reasons for Participating, 3. Concerns of Participating 4. Academic Related Statements. A narrative description reviews the results from the open-ended responses. Refer to Appendix A for the actual questionnaire administered in this study.

Within each category, Table A presents the results of the t-test for each question, as well as the significant difference. Table B presents frequencies for the questions in which a significant difference was found between gymnasts. Table C presents the mean scores and standard deviation for the questions where significant differences were found.

Table 1A contains questions relating to the benefits acquired from participation in the sport of gymnastics according to the current gymnasts and former gymnasts in the sample. The data does not provide sufficient evidence to conclude that a difference exists when asked ten of the eleven questions in this category. Thus, the researcher fails to reject the null hypothesis in most cases.

Table 1A depicts that there is a significant difference in the responses to the statement, "I think I was/am more healthy and fit than others who haven't done gymnastics." This is apparent with the calculation of $t = -2.674$, $p < .05$, two tailed.

However, in Table 1B, a high percentage of gymnasts in both categories agree with the statement that they are more healthy and fit. Former gymnasts responding (100%)(37) and current (92.8%)(64). The discrepancy is evident when looking at the frequencies showing that some current gymnasts answered undecided and one current gymnast disagreed with the statement. In contrast to all of the former gymnasts(37) either agreed or strongly agreed with the statement.

Literature concludes that there are many benefits gained by participating in sports. Data from the present study supports that gymnasts perceive these benefits in their lives. When reviewing all of the frequencies appearing in Appendix B, a high percentage of former gymnasts(89%)(33) and current gymnasts (83%)(57) responded choosing agree and/or strongly agree to the question, "Gymnastics helped me feel good about myself." When asked to respond to the statement, "Because of my involvement in gymnastics, I know more about how to create goals for myself," once again a high percentage of former gymnasts(84%)(31) and current gymnasts(96%)(66) responded with the answer agree and strongly agree. Responses to the statement, "Being healthy and fit is something gymnastics helps me achieve," former gymnasts(94.5%)(35) agree and current gymnasts(95.6%)(66) also agree. Additionally, former gymnasts(89.1%)(33) agree that gymnastics gives them more confidence and a high percentage of current gymnasts (82.6%)(57) agree as well.

Although gymnasts are in agreement of many positive benefits, when examining Table 1C, it is also evident that gymnast were undecided in some of their responses. Most of the undecided responses were to statements, "Making friends is easier because I participate in gymnastics," and "Gymnastics helps me be a leader in activities at school.

Table 2A presents results of the four questions designed to gain information on perceptions of reasons for participation in gymnastics. The t-test between group means does not provide sufficient evidence to conclude that a difference exists when asked questions in this category. However, when asked if they are in gymnastics because their parents want them to be, unequal variances are assumed at a .077 level. This result is approaching significance. Former gymnasts(97.3%)(36) disagree stronger with this statement while less current gymnasts(88.4%)(61) disagree.

Frequencies indicate a high percentage of gymnasts agree that they participate mostly because it's fun supporting studies in past literature. The former gymnasts agree (94.6%)(35) and current gymnasts are slightly lower at (88.4%)(61). Although gymnastics is a form of exercise, most former gymnasts disagree that exercise was a reason for their participation. Calculation of the t-test on this statement resulted in a $t = .197, p < .05$, two tailed, which is not significant. However, frequencies indicate a much higher percentage of former gymnasts(73%)(27) disagree that they did gymnastics for the exercise, while current gymnasts(29%)(20)disagree. Results show that former gymnasts(16.9%)(7) and more current gymnasts(50.7%)(37) actually state that they are in gymnastics for the exercise(see Appendix B).

Table 3A,B, and C displays results to statements about concerns toward participating in gymnastics. Data obtained from the two separate samples indicate a significant difference between means when asked one of the seven questions in this category dealing with eating concerns, social life and coaching. When asked to respond to the question, "I eat more healthy foods because I am/was in gymnastics," the t-test was performed resulting in a $t = 3.431, p < .05$, two tailed. A significant difference was calculated at .003 level. Refer to Table 3A.

In Table 3B, the frequencies display that current gymnasts agree much stronger with this statement(81.2%)(56) in comparison to much less former gymnasts(59.5%)(25) agreeing that they eat more healthy foods. There were similar numbers of undecided

responses in both former (13.5%)(5) and current gymnasts(15.9%)(11). Many more former gymnasts(27%)(10) disagreed that they eat more healthy foods, than the current gymnasts(2.9%)(2).

When asked if the gymnasts missed out on activities they would like to do, unequal variances were assumed with a significance level of .09. This level is approaching a significant difference between means, however, this is not great enough a difference to deem significant. Former gymnasts(29.7%)(11) felt they did miss out on activities, while many more current gymnasts(60.9%)(42) felt the same.

Table 4 A,B and C presents statements relating academics and participation in gymnastics. When asked to respond to the statement, "My grades would have been better if I were not in gymnastics," the data indicates a significant difference between the two populations, $t=.998$ $p<.05$, two tailed. Thus, the null hypothesis is rejected. Reviewing the frequencies regarding this statement in Table 4B, former gymnasts(72.9%)(27) disagree with the statement, whereas current gymnasts(57.9%)(40) disagree with statement.

There are similar results in responses to the statement, "I would have studied more or would study more if I was not in gymnastics." The difference was significant, $t=1.717$, $p<.05$, two tailed. Once again the null hypothesis is rejected. Frequencies indicate that former gymnasts(62.1%)(23) disagree,(18.9%)(7) are undecided and the same percentage(18.9%)(7) agree with that statement. Current gymnasts(49.2%)(34) disagree, (14.5%)(10) responded undecided and (36.2%)(25) actually agree that they would study more if they were not in gymnastics. It is apparent that former gymnasts feel stronger that they would not have studied more(see Table 4B).

Open-ended Responses. When asked, "What is the greatest impact gymnastics has had on your life?" the top three comments by former gymnasts were goal setting and accomplishment, having confidence, and being disciplined with a strong work ethic. The current gymnasts comments included most that staying fit and healthy, and learning how

to manage time were the greatest impact. There were equal responses that being happier and doing something fun, learning how to set goals and having greater self-esteem were great impacts. Goal setting was indicated a great impact by both former and current gymnasts.

The three most reported negative aspects of participating in gymnastics by former gymnasts were indicated as body weight pressure, coaching concerns and injuries. Currently participating gymnasts responded most that the negative aspect of participating in gymnastics is that it is a detriment to their social life, followed by the occurrence of injuries, and the stress of finishing homework. Both former and current gymnasts state that injuries are a negative aspect.

See Appendix B for presentation of frequencies and percents for each question presented to the currently participating and former gymnasts.

TABLE 1A

T-TEST FOR CATEGORY: BENEFITS OF PARTICIPATION

		Levene's Test for Equality of Variances		t-test for Equality of Means				
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
IN COMPARISON TO OTHERS MY AGE, I THINK I AM MORE HEALTHY AND FIT#9	Equal variances assumed	8.549	.004	-2.399	104	.018	-.2969	.1238
	Equal variances not assumed			-2.674	97.346	.009	-.2969	.1111
BEING HEALTHY AND FIT. GYMNASTICS HELPS ACHIEVE#29	Equal variances assumed	.051	.821	.347	104	.729	4.387E-02	.1264
	Equal variances not assumed			.353	77.124	.725	4.387E-02	.1244
GYMNASTICS HELPS ME MANAGE MY TIME BETTER#15	Equal variances assumed	1.379	.243	-1.091	104	.278	-.2221	.2036
	Equal variances not assumed			-1.133	82.016	.261	-.2221	.1960

TABLE 1A (CONTINUED)

		Levene's Test for Equality of Variances		t-test for Equality of Means				
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
MOST OF MY FRIENDS ARE IN GYMNASTICS #20	Equal variances assumed	1.256	.265	-2.416	104	.017	-.6236	.2581
	Equal variances not assumed			-2.486	79.907	.015	-.6236	.2509
MAKING FRIENDS IS EASIER B/C I AM IN GYMNASTICS (#7)	Equal variances assumed	.277	.600	-1.529	104	.129	-.3443	.2252
	Equal variances not assumed			-1.494	69.056	.140	-.3443	.2305
NOT INVOLVED WITH DRINKING AND DRUGS B/C IN GYMNASTICS#16	Equal variances assumed	.399	.529	2.924	104	.004	.7172	.2453
	Equal variances not assumed			2.984	78.097	.004	.7172	.2404
GYMNASTICS GIVES ME MORE CONFIDENCE (#6)	Equal variances assumed	.049	.826	-.223	104	.824	-4.03E-02	.1809
	Equal variances not assumed			-.215	66.745	.830	-4.03E-02	.1874
BEING IN GYMNASTICS,HELPS ME STAY OUT OF TROUBLE#11	Equal variances assumed	.003	.955	-1.377	104	.172	-.2577	.1872
	Equal variances not assumed			-1.440	83.600	.154	-.2577	.1790
GYMNASTICS HELPS ME BE A LEADER IN ACTIVITIES AT SCHOOL#12	Equal variances assumed	.639	.426	-.938	102	.351	-.1961	.2091
	Equal variances not assumed			-.964	77.043	.338	-.1961	.2035
HELPS ME FEEL GOOD ABOUT MYSELF#21	Equal variances assumed	.043	.837	-.833	104	.407	-.1214	.1458
	Equal variances not assumed			-.858	80.349	.393	-.1214	.1415
I KNOW MORE ABOUT HOW TO CREATE GOALS FOR MYSELF#14	Equal variances assumed	.088	.767	2.932	104	.004	.3866	.1318
	Equal variances not assumed			2.720	59.806	.009	.3866	.1422

TABLE 1B

FREQUENCIES FOR FORMER GYMNASTS

FREQUENCIES FOR CURRENT GYMNASTS

MORE HEALTHY AND FIT THAN OTHERS #9					MORE HEALTHY AND FIT THAN OTHERS #9				
	Frequency	Percent	Valid Percent	Cumulative Percent		Frequency	Percent	Valid Percent	Cumulative Percent
Valid 4.00	11	29.7	29.7	29.7	Valid 2.00	1	1.4	1.4	1.4
5.00	26	70.3	70.3	100.0	3.00	4	5.8	5.8	7.2
Total	37	100.0	100.0		4.00	30	43.5	43.5	50.7
Total	37	100.0			5.00	34	49.3	49.3	100.0
					Total	69	100.0	100.0	
					Total	69	100.0		

TABLE 1C

MEANS AND STANDARD DEVIATION FOR QUESTIONS ABOUT THE BENEFITS OF PARTICIPATION IN GYMNASTICS

Group Statistics

	STATUS	N	Mean	Std. Deviation	Std. Error Mean
IN COMPARISON TO OTHERS MY AGE, I THINK I AM MORE HEALTHY AND FIT#9	1,current	69	4.4058	.6712	8.1E-02
	2,former	37	4.7027	.4634	7.6E-02
BEING HEALTHY AND FIT, GYMNASTICS HELPS ACHIEVE#29	1,current	69	4.4493	.6310	7.6E-02
	2,former	37	4.4054	.5990	9.8E-02
GYMNASTICS HELPS ME MANAGE MY TIME BETTER#15	1,current	69	3.9130	1.0395	.1251
	2,former	37	4.1351	.9178	.1509
BEING IN GYMNASTICS,HELPS ME STAY OUT OF TROUBLE#11	1,current	69	3.9855	.9624	.1159
	2,former	37	4.2432	.8302	.1365
GYMNASTICS HELPS ME BE A LEADER IN ACTIVITIES AT SCHOOL#12	1,current	68	3.4706	1.0434	.1265
	2,former	36	3.6667	.9562	.1594
HELPS ME FEEL GOOD ABOUT MYSELF#21	1,current	69	4.2029	.7392	8.9E-02
	2,former	37	4.3243	.6689	.1100
I KNOW MORE ABOUT HOW TO CREATE GOALS FOR MYSELF#14	1,current	69	4.5217	.5843	7.0E-02
	2,former	37	4.1351	.7514	.1235
MOST OF MY FRIENDS ARE IN GYMNASTICS#20	1,current	69	2.9710	1.3058	.1572
	2,former	37	3.5946	1.1893	.1955
MAKING FRIENDS IS EASIER B/C I AM IN GYMNASTICS (#7)	1,current	69	3.3043	1.0752	.1294
	2,former	37	3.6486	1.1599	.1907
NOT INVOLVED WITH DRINKING AND DRUGS B/C IN GYMNASTICS#16	1,current	69	4.0145	1.2306	.1482
	2,former	37	3.2973	1.1514	.1893
GYMNASTICS GIVES ME MORE CONFIDENCE (#6)	1,current	69	4.2029	.8503	.1024
	2,former	37	4.2432	.9547	.1569

TABLE 2A

T-TEST FOR CATEGORY: REASONS FOR PARTICIPATION IN GYMNASTICS

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means				
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
I AM IN GYMNASTICS B/C MY PARENTS WANT ME TO BE (#3)	Equal variances assumed	3.186	.077	.585	104	.560	8.931E-02	.1526
	Equal variances not assumed			.659	99.046	.512	8.931E-02	.1356
PARENT MAY WANT ME TO DO GYMNASTICS MORE THAN SELF#26	Equal variances assumed	2.204	.141	.992	104	.323	.1919	.1934
	Equal variances not assumed			1.055	87.312	.294	.1919	.1819
PARTICIPATE IN GYMNASTICS BECAUSE IT'S FUN#13	Equal variances assumed	2.400	.124	.050	103	.960	6.757E-03	.1359
	Equal variances not assumed			.054	91.864	.957	6.757E-03	.1255
DOING GYMNASTICS FOR THE EXERCISE#19	Equal variances assumed	1.689	.197	3.556	104	.001	.7791	.2191
	Equal variances not assumed			3.664	80.260	.000	.7791	.2126

TABLE 3A

T-TEST FOR CATEGORY: CONCERNS OF PARTICIPATING IN GYMNASTICS
Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means				
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
HELPS ME HAVE GOOD EATING HABITS #2	Equal variances assumed	9.143	.003	3.634	104	.000	.6631	.1825
	Equal variances not assumed			3.431	62.734	.001	.6631	.1933
GYMNASTICS CAN CREATE AN EATING DISORDER#8	Equal variances assumed	.245	.622	-2.398	104	.018	-.5495	.2292
	Equal variances not assumed			-2.365	70.916	.021	-.5495	.2324
MY SOCIAL LIFE SUFFERS B/C OF GYMNASTICS (#4)	Equal variances assumed	1.164	.283	2.306	104	.023	.5155	.2236
	Equal variances not assumed			2.236	67.566	.029	.5155	.2306
MISS OUT ON ACTIVITIES I WOULD LIKE TO DO#25	Equal variances assumed	2.935	.090	3.948	104	.000	.8500	.2153
	Equal variances not assumed			3.716	62.219	.000	.8500	.2287
GYMNASTICS PUTS A LOT OF STRESS IN MY LIFE#28	Equal variances assumed	.755	.387	2.940	104	.004	.6631	.2255
	Equal variances not assumed			3.067	83.043	.003	.6631	.2162
GYMNASTICS CREATES STRESS IN MY LIFE (#5)	Equal variances assumed	1.701	.195	2.261	104	.026	.4943	.2187
	Equal variances not assumed			2.174	66.009	.033	.4943	.2274
LIKE COACH(ES) TO MAKE MORE POSITIVE COMMENTS#24	Equal variances assumed	.420	.518	2.076	104	.040	.4207	.2026
	Equal variances not assumed			2.032	69.405	.046	.4207	.2070
MY COACH(ES) SEEM SUPPORTIVE	Equal variances assumed	1.659	.201	2.406	104	.018	.3557	.1478

TABLE 3B

FREQUENCIES

FORMER GYMNASTS

CURRENT GYMNASTS

I EAT MORE HEALTHY FOODS #2)

BEING IN GYMNASTICS HELPS ME HAVE GOOD EATING HABITS
(#2)

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 1.00	1	2.7	2.7	2.7
2.00	9	24.3	24.3	27.0
3.00	5	13.5	13.5	40.5
4.00	20	54.1	54.1	94.6
5.00	2	5.4	5.4	100.0
Total	37	100.0	100.0	
Total	37	100.0		

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 1.00	2	2.9	2.9	2.9
3.00	11	15.9	15.9	18.8
4.00	38	55.1	55.1	73.9
5.00	18	26.1	26.1	100.0
Total	69	100.0	100.0	
Total	69	100.0		

TABLE 3C

MEANS AND STANDARD DEVIATIONS FOR QUESTIONS ABOUT CONCERNS TOWARD
PARTICIPATING IN GYMNASTICS

Group Statistics

	STATUS	N	Mean	Std. Deviation	Std. Error Mean
HELPS ME HAVE GOOD EATING HABITS #2	1,current	69	4.0145	.8312	.1001
	2,former	37	3.3514	1.0060	.1654
GYMNASTICS CAN CREATE AN EATING DISORDER#8	1,current	69	2.6667	1.1070	.1333
	2,former	37	3.2162	1.1579	.1904
MY SOCIAL LIFE SUFFERS B/C OF GYMNASTICS (#4)	1,current	69	3.0290	1.0568	.1272
	2,former	37	2.5135	1.1696	.1923
MISS OUT ON ACTIVITIES I WOULD LIKE TO DO#25	1,current	69	3.5797	.9763	.1175
	2,former	37	2.7297	1.1937	.1962
GYMNASTICS PUTS A LOT OF STRESS IN MY LIFE#28	1,current	69	3.0145	1.1567	.1393
	2,former	37	2.3514	1.0060	.1654
GYMNASTICS CREATES STRESS IN MY LIFE (#5)	1,current	69	3.1159	1.0223	.1231
	2,former	37	2.6216	1.1631	.1912
LIKE COACH(ES) TO MAKE MORE POSITIVE COMMENTS#24	1,current	69	3.8261	.9695	.1167
	2,former	37	3.4054	1.0398	.1709
MY COACH(ES) SEEM SUPPORTIVE AND CARING#17	1,current	69	4.4638	.6320	7.6E-02
	2,former	37	4.1081	.8751	.1439

TABLE 4A

RESULTS T-TEST ON ACADEMIC RELATED QUESTIONS

		Levene's Test for Equality of Variances		t-test for Equality of Means				
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
WOULD STUDY MORE IF NOT IN GYMNASTICS #18	Equal variances assumed	4.994	.028	1.612	104	.110	.3647	.2263
	Equal variances not assumed			1.717	87.805	.090	.3647	.2124
GRADES WOULD BE BETTER IF NOT IN GYMNASTICS #27	Equal variances assumed	4.855	.030	.945	104	.347	.2107	.2230
	Equal variances not assumed			.998	85.818	.321	.2107	.2112
B/C IN GYMNASTICS, I USE LESS TIME TO STUDY#30	Equal variances assumed	2.102	.150	1.693	103	.094	.4002	.2365
	Equal variances not assumed			1.765	83.449	.081	.4002	.2267
PARTICIPATIN G IN GYMNASTICS HELPS ME GET BETTER GRADES (#1)	Equal variances assumed	.040	.842	.139	104	.890	2.781E-02	.2006
	Equal variances not assumed			.137	71.856	.891	2.781E-02	.2025

TABLE 4B
FREQUENCIES

FORMER GYMNASTS

CURRENT GYMNASTS

WOULD HAVE STUDIED MORE IF NOT IN GYMNASTICS #18

WOULD STUDY MORE IF NOT IN GYM #18

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 1.00	5	13.5	13.5	13.5
2.00	18	48.6	48.6	62.2
3.00	7	18.9	18.9	81.1
4.00	7	18.9	18.9	100.0
Total	37	100.0	100.0	

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 1.00	9	13.0	13.0	13.0
2.00	25	36.2	36.2	49.3
3.00	10	14.5	14.5	63.8
4.00	21	30.4	30.4	94.2
5.00	4	5.8	5.8	100.0
Total	69	100.0	100.0	

GRADES WOULD HAVE BEEN BETTER IF I WERE NOT IN GYMNASTICS #27

GRADES WOULD BE BETTER IN NOT IN GYM #27

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 1.00	10	27.0	27.0	27.0
2.00	17	45.9	45.9	73.0
3.00	7	18.9	18.9	91.9
4.00	2	5.4	5.4	97.3
5.00	1	2.7	2.7	100.0
Total	37	100.0	100.0	

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 1.00	21	30.4	30.4	30.4
2.00	19	27.5	27.5	58.0
3.00	18	26.1	26.1	84.1
4.00	8	11.6	11.6	95.7
5.00	3	4.3	4.3	100.0
Total	69	100.0	100.0	

TABLE 4C

MEANS AND STANDARD DEVIATIONS FOR ACADEMIC RELATED QUESTIONS

Group Statistics

	STATUS	N	Mean	Std. Deviation	Std. Error Mean
WOULD STUDY MORE IF NOT IN GYMNASTICS #18	1,current	69	2.7971	1.1830	.1424
	2,former	37	2.4324	.9586	.1576
GRADES WOULD BE BETTER IF NOT IN GYMNASTICS #27	1,current	69	2.3188	1.1567	.1393
	2,former	37	2.1081	.9656	.1587
B/C IN GYMNASTICS, I USE LESS TIME TO STUDY#30	1,current	68	3.1029	1.2111	.1469
	2,former	37	2.7027	1.0505	.1727
PARTICIPATING IN GYMNASTICS HELPS ME GET BETTER GRADES (#1)	1,current	69	3.8116	.9743	.1173
	2,former	37	3.7838	1.0037	.1650

Discussion of Results

These results are derived from a relatively small sample. Nevertheless, these findings imply that gymnasts and former gymnasts responded significantly different on only twenty-three of the twenty-seven statements that were examined using the t-test. Methodological differences may account for the some discrepancies. For example, the exact wording of questions and/or the environment in which the data were obtained may have influenced subject responses. Results of gymnasts' responses indicate support of many issues discussed in the review of literature.

Benefits:

Considering the benefits of participation in sports, gymnasts and former gymnasts were asked if being healthy and fit is something gymnastics helps them achieve, a high percentage of all gymnasts in the sample(95.3%) agreed or strongly agreed. When asked if they thought they were more healthy and fit than others who have not done gymnastics, a high percentage agreed once again. There was some discrepancy between the two groups however. All of the former gymnasts felt they were more healthy and fit. Most of the current gymnasts' felt the same, yet there were four gymnasts that were undecided and one disagreed with the statement. More specifically, the discrepancy between groups evident when asked the question in terms of comparison to others.

Learning how to create goals is considered a very important aspect for the success of the athlete. One former gymnast enclosed a letter along with the questionnaire expressing some of her feelings about participating in gymnastics. She expressed the frustration felt when she was not able to reach her goals. Frustrations were mentioned by other former athletes when asked to comment on any negative aspects toward participating in gymnastics. Yet, goal setting and achieving was the number one response by former gymnasts when asked what the greatest impact gymnastics has had on their life. Current gymnasts acknowledged goal setting as their third greatest impact in response to

the open-ended question. Furthermore, 91.5% of all the gymnasts sampled felt that they know more about how to create goals for themselves due to their participation in gymnastics.

The National Gymnastics Foundation reports that recreational programs, especially gymnastics, which requires focus and discipline to succeed, are important deterrents to substance abuse, crime and teen pregnancy(Technique,1996). For questions pertaining to feelings that gymnastics helps the gymnast to stay out of trouble, 77.3% of the gymnasts surveyed agreed or strongly agreed. Comparing samples, the former gymnasts(81.0%) and the current gymnasts(75.3%)felt that involvement in the sport helped them stay out of trouble. When asked more specifically, if they did not get involved with drinking and drugs because of gymnastics, percentage in agreement was not as high. Sixty-nine percent(69%) overall answered this question with a response of agreeing or strongly agreeing. Looking at each category of gymnasts, only 48.6% of the former gymnasts agreed, while a much higher percentage of current gymnasts (76.8%) agreed.

The discrepancies could be for various reasons. The question being two-fold, including both drinking and drugs may have been somewhat confusing to respond to accurately. Additionally, the former gymnasts were answering from a perspective of living longer and a different level of maturity.

As part of determining if gymnasts felt positively toward gymnastics, they were asked to respond to the statement, "I would recommend taking gymnastics to others." A high percentage of former gymnasts(91.8%) agreed or strongly agreed. The current gymnasts(68.1%) did not feel as strongly.

Reasons:

It is suggested that if the experience in sports is fun, then children are far more likely to continue that activity, and to do so for a lifetime(Martens,1996). The present

study indicates a high percentage participate in gymnastics because it is fun(90.6%). The questions in this category resulted in no significant differences in responses.

Exercise may be a reason for involvement in the sport of gymnastics. When asked if participation was for the exercise, only (18.9%) former gymnasts agreed. Half of the current gymnasts(50.7%) agreed that they did gymnastics for the exercise. The growth of the fitness movement may account for more current interest in participating for the exercise.

Adults often impose their own goals on children and must be conscious of overimposing adult goals on children's participation in physical activity(Martens,1996). The gymnasts in the study were asked to what degree they felt they did gymnastics because their parents wanted them to. Findings support that both former(97.3%) disagree and current(88.4%) disagree or strongly disagree with the statement. The t-test reveals a significant difference between the means. This difference is apparent in the fact that there were no former gymnasts that agreed in any degree with the statement, while there were two current gymnasts that agreed to some extent and six gymnasts that answered this statement undecided. Parental pressure to get involved does not seem to be an issue for the gymnasts in this study.

Concerns:

Many athletes state that their involvement in gymnastics frequently restricts their involvement in other activities. Aspiring young gymnasts devote nearly all of their time to the sport and may thereby suffer from social isolation and a lack of opportunities for social development(Tofler, et al., 1996). In response to an open-ended question, gymnasts in the present study, especially current gymnasts, commented that lack of social life was a negative aspect of participation in the sport. Many gymnasts commented that the sacrifices were worth it. When asked in the likert scale format if social life suffers, former gymnasts(21.6%) and current gymnasts(37.6%) agreed with the statement. This is not a particularly high percentage feeling that their social life suffers. This, however, was the

most commented negative aspect for current gymnasts when responding to the open-ended question. Many athletes say that sport participation is attractive because it represents an opportunity for the athlete to demonstrate their ability and to obtain social reinforcement(Wrisberg, 1996). Gymnasts may fulfill some of their social needs while participating in the sport.

Lack of time was a comment that many gymnasts stated as a negative aspect of participation. Blinde(1989) discusses time demands of the collegiate athlete and how it is not uncommon to find that today's athletes sacrifice friendship, social life, schoolwork, and other college activities. In a research study of collegiate athletes, she found the athletes to feel that the sacrifices were worth it as well. However, she adds that restricted involvement in other aspects of college life may have important consequences once the college sport career is over.

Tofler (1996) states that top gymnasts work out an average of 30-45 hours a week. Yet training as little as 18 hours a week before and during adolescence may alter the growth rate and prevent the attainment of full adult height. Another statement by Mandelbaum(1993) regarding concerns, is that gymnastics injuries are often less a matter of age than of training hours: "About half or more of the injuries occur during practice, and we know that gymnasts who train more than 16 hours per week are at a higher risk of problems, including physical and psychological burnout"(p.220).

In this research project, the former gymnasts worked out an average of 14.9 hours and current gymnasts work out an average of 15.8 hours weekly. Thus, some concerns such as these are not conducive to the present study. An interesting finding however, is that when asked what the negative aspects of participating are for the gymnast, both former and current gymnasts listed "injuries" as the second and third most negative part of the sport. One must keep in mind the nature of the sport. Unlike many other sports, gymnastics requires athletes to invert themselves much of the time, increasing the risk of

injury(Fredricks,1985). The possibility of injury may be inevitable in gymnastics.

Gymnasts in the present study acknowledge that injuries are a dissenting part of the sport.

Studies estimate 15-62 percent female athletes have an eating disorder compared with 1-3 percent of the general population. This research project indicates that 31.1 percent of all the gymnasts surveyed(n=106) believe that participating in gymnastics can create an eating disorder. A close percentage disagree(39.6%) as well as 29.2% state they are undecided if gymnastics can create an eating disorder. The percentages do not display strong perceptions of agreement or disagreement.

The subjects in the present study were not asked if they do in fact have an eating disorder. However, one former gymnast offered information regarding having an eating disorder now and feeling it is due to her involvement in gymnastics. Additionally, weight concerns were the second most stated negative aspect of participating in gymnastics for former gymnasts. Although coaches, parents and those involved in the sport of gymnastics should be alert for cases of eating disorders among female athletes, they should recognize that extreme concern about weight may not necessarily reflect an eating disorder, but may simply mirror the widespread societal focus on women's weight(Snow and Harris, 1986).

Ryan (1995) acknowledges that USA Gymnastics officials are correct in claiming that the sport, by itself, does not cause an eating disorder. Anorexia and bulimia are not diseases whose source can be excised and examined under a microscope. The results of the present study must consider that there may be large variations in the emphasis on thinness across different gymnastics subcultures. It is possible, for example, that there is a range of emphasis placed on body weight by different gymnastics coaches that may serve either to prevent or promote disordered eating cognitions or practices(Brownell and Rodin, 1992). This may be one reason for the range of responses.

A significant difference was found between gymnasts when asked if being in gymnastics helped them to have good eating habits. Current gymnasts(81.2%) felt that

gymnastics did help their eating habits more than former gymnasts(67.%). This outcome could be the result of current gymnasts being taught more about the importance of good eating habits. Considering USA Gymnastics recently created a Task Force to examine concerns such as disordered eating, there may be much more interest in these issues than in the past(USA Gymnastics Report, 1995).

Massimo(1978) reports that in the vast majority of cases, the number one characteristic sought by top performers was the coach's willingness and desire to get to know the gymnast as an individual and in a way that suggested care and emotional support. It is suggested that the more skilled and successful gymnasts seek greater personal interactive closeness and motivational incentive based on an emotionally supportive relationship with the coach.

The percentage of gymnasts that felt their coaches were supportive and caring is 87.7%. Former gymnasts(88.2%) and current gymnasts(92.7%) agreed with the statement. Thus, one might ascertain that these gymnasts did feel that their coach(es) cared and supported them. Gymnasts that would have liked their coach(es) to make more positive comments were 54.7%. Frequencies indicate similar percentages of former(48.6%) and current (58%) gymnasts agree. These statements may have been difficult to answer considering gymnasts may have a variety of coaches currently or in their past. Nonetheless, the findings indicate an interest and desire to be encouraged with positive comments.

The term stress has been defined in various ways and definitions vary greatly depending upon individual interpretation(O'Dell and Tietjen,1997). Thus, the results for questions pertaining to stress, may be difficult to interpret accurately. There were eleven comments that gymnastics is a way of relieving stress when current gymnasts were asked what the greatest impact gymnastics has had on their life. However, these gymnasts also commented that they felt the stress of finishing homework was a negative aspect. Consequently, gymnastics seems to help the gymnasts in this study to relieve stress in

some areas of their lives, but imparts stress in other areas. Percentages indicate that former gymnasts(16.2%) and more current gymnasts (37.7%) feel that gymnastics puts a lot of stress in their life. These percentages could vary for a number of reasons, one being that gymnasts at higher skill levels may feel different amounts of stress than the gymnast competing at a lower level.

Academics and gymnastics:

Blinde(1989) writes that today's athlete is more likely to state that she must sacrifice her schoolwork to some extent in order to meet the demands of the athletic role. Blinde expresses that the demands in athletic programs are perceived as being much greater than in the previous decade. The demands of both the student and athlete role can be quite time consuming. In the present research project, gymnasts were asked if they felt they would have studied more if they were not in gymnastics. There was a significant difference between the perceptions of former gymnasts(62.1%) feeling more strongly that they would not have studied more while a much smaller percentage of the current gymnasts(49.2%)felt the same. Current gymnasts also state that they feel the stress of finishing homework, as one of the top three comments of negative aspects of participation in gymnastics.

Soltz(1986) found that student athletes' grades do not suffer. To the contrary, athletes' GPA's were significantly higher than nonparticipant students. In addition, significantly fewer athletes received a failing grade during competition than when they were not actively competing. The results of the present study indicate that 92%(64) current gymnasts perceive their academic performance at the A and B grade level. Former gymnasts had a lower percentage, 59.5%(22) at the A and B grade level. Additionally , there were no gymnasts from both samples, n=106, perceiving their grades below the B and C grade level.

Sabo(1998) reports that boy and girls from suburban and rural areas who participate in high school sports perform better academically and are more likely to go to

college than non-athletes. All of the former gymnasts (100%) did or will attend college while a high percentage of current gymnasts(92.8%) express desire to attend college.

An interesting response from two current gymnasts when asked to respond to the open-ended questions, was that gymnastics helped them to learn better and to concentrate. An article appearing in US News and World Report(Smart Moves, 1995) states that until the relationship between physical skill and brain work is more fully understood, it would have to be taken on faith that physical activity influences ability to learn or remember.

CHAPTER V

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

Summary

Female gymnasts were administered a questionnaire tapping pertinent demographic information (e.g. age, level of gymnastics, hours spent in training). Gymnasts were in two categories; currently participating and former gymnasts representing various competitive levels. The purpose of the study was to gain a better understanding of the perceptions of gymnasts toward participating in the sport of gymnastics. A questionnaire was constructed using a five-point likert scale format. Perceptions of the benefits, concerns, reasons and academic related topics were presented. To ascertain more specific information concerning gymnasts' perceptions, two open-ended questions were included asking for comments on the impact and negative aspects of gymnastics. The hypothesis stated that there would be no significant difference between the current and former gymnasts' perceptions.

Data suggested gymnasts' perceptions were similar on twenty-three of the twenty-seven items in which the independent sample t-test was performed. A significant difference was indicated on the following questions: (1.) Being in gymnastics helps me have good eating habits, (2.) I am in gymnastics because my parents want me to participate, (3.) I would have studied more if I were not in gymnastics, and (4.) In comparison to other my age, I think I am more healthy and fit.

Conclusions

Overall, the general findings support some of past literatures' findings. Gymnasts in this sample perceive benefits of participating in many areas of their lives. These benefits

include the ability to set goals, more confidence, being healthy and fit, helping them to stay out of trouble, and helping grades in school. Former gymnasts and current gymnasts state that although there are sacrifices involved, many feel it is worth it. Responses to the open-ended questions give greater insight into the perceptions of the gymnasts. One of the most stated negative aspects of participation from both former and current gymnasts is the occurrence of injuries. Current gymnasts responded most that lack of time for their social life is a negative aspect. Former gymnasts state the concerns of body weight is a negative aspect. By reviewing the results of the perceptions, those involved in the sport can acquire an enhanced understanding of the gymnast and their experiences. Education can be a key to prevention of negative aspects in the sport.

Recommendations

Sport has many possibilities that can be fulfilled in the lives of children as well as adults. Those involved in gymnastics including coaches, parents and gymnasts must acquire knowledge and skills necessary to make participating a positive experience. If one asks the question, "Are sports detrimental or beneficial to the psychological and social development of the participant?" The answer according to O'Dell and Tietjen, (1997) depends largely on the nature of the experience. The authors add that it especially depends on quality leadership by parents and coaches. Coaches should ask themselves whether they are prepared to take on such responsibility.

Considering the positive aspects of participating in sports, indicated in the review of literature as well as the results of the present study, parents should support and encourage their daughters to be active sports and fitness participants. Teachers and other adults should consider the time spent active in sports really can be beneficial. More importantly, it is the effort and hard work that should be encouraged and rewarded. The

ultimate aim of youth recreation programs is the optimum development of the child(O'Dell and Tietjen,1997). O'Dell and Tietjen(1997) suggests that it is the coach's responsibility to reach out to the parents and work in the best interest of the children and that it is equally important that parents support coaches. Helping the parents to view their child's participation realistically should be an important role of the coach as well. One consideration is that kids may be turned off of sports by overemphasis of competition and rushing children into a competitive environment. Martens(1996) suggests that the most important principle to increase the participation of children in physical activity, and to continue this participation for a lifetime, is to enhance the feelings of self-worth derived from participation in physical activity. Recognizing small steps of progress is advised.

It is important that coaches are trained in various issues surrounding the athlete in sport and not just involved conclusively to teaching the actual skills. A recommendation of the present study is that there be a manual for coaches and continuing education available. Skinner(1988) suggests that the virtues of a sports program build a foundation upon which we can help teach students strong personal values, including an understanding of the benefits of hard work and dedication. These coaches spend a great deal of time with the athlete and should have an awareness of developmental issues, knowledge of realistic, as well as healthy physical and psychological demands. Toffler(1996), in The New England Journal of Medicine, states that most coaches have little knowledge of child development. Coaches may have the greatest influence over athletes and their parents and are in the best position to monitor the athlete's behavior.

According to Martin and Lumsden(1987), an overemphasis on winning is the principal problem in youth sports. Some coaches treat athletes in abusive ways because they are under extreme pressure to "just win"(Wrisberg, 1996). Consequently, a major coaching responsibility is to gain a perspective that is consistent with the needs and abilities of their young participants. O'Dell and Tietjen(1997) express that a successful coach does more than win. Long-term goals such as learning the fundamentals, striving

for excellence, enjoying success, responding to failure with a renewed determination as well as developing self esteem are more important. Some of these principles will challenge each person involved in an athlete's career to understand and respect the rights of those involved and to accept his/her own responsibilities in creating a successful athletic endeavor.

A suggestion for gymnastics coaches is that some time be set aside weekly for the competitive gymnast to "play" in the gym. This play time might ensure a more positive feeling towards participation as well as keeping the 'fun' in the sport. This play time need not be considered unproductive by the coach. This could be incorporated into the training to also delay the burnout syndrome that can occur. This recommendation is made considering the findings of the present study indicate that some gymnasts perceive their social life suffering because of gymnastics. The use of time in the gym, where there is more interaction and less discipline required, may help fulfill some social needs of the gymnasts.

Martens reports that one way adults fail to apply the 'Fun Principle' is by overorganizing the activities for kids by constantly instructing and evaluating them(1996). He continues to explain that there certainly is a place for instruction and evaluation. But youth need opportunities to play without constant instruction and evaluation. They find fun in applying what they've learned without fearing consequences of being a failure. One former gymnast in particular included a letter with her return survey stating that she forgot how it felt to enjoy just swinging on the unevenbars. The joy felt with the movement of the body performing skills that many would never dream of attempting should not be forgotten. Chambers(1991) emphasizes the positive aspects of making sports fun. He states that anxiety and stress can be alleviated by making sports fun. Additionally, when athletes have fun they are likely to satisfy their motivational needs of affiliation, skill development, excitement, success, fitness, and energy release.

It is recommended that gymnasts and coaches would benefit from a nutrition-education program. In one study involving 97 gymnasts, results indicated that knowledge of nutrition was poor(Loosli, Benson, Gillien, Bourdet, 1986). There are many food myths and faulty information regarding weight loss that could misguide those involved. Burkes-Miller and Black(1988) made one suggestion to athletic departments that could be made specifically to private gymnastics schools as well. They suggested that health educators, nutritionist, or psychologists be employed as consultants to increase awareness of problems and suggest ways for athletes to modify behaviors.

Concerns of gymnasts' eating behavior are described throughout the review of literature. Gymnastics schools could utilize the services and information gained through The Athlete Wellness Program for women's gymnastics to learn the best way of handling these issues. The program represents consultants, nutritionists and medical experts, all leaders in research and practice dealing with the Female Athlete Triad(disordered eating, amenorrhea and osteoporosis). The Athlete Wellness Program is a fairly new organization having been in existence since 1994(USA Gymnastics Report, 1995). The purpose of the program is to recommend improved programs for administrator, athletes, coaches, judges and parents. This might be considered one way USA Gymnastics recognizes it's responsibility to actively pursue policies that will provide a healthy environment in which gymnasts can pursue their goals. According to Mosley(1997), the key element in any athlete's training regime is the balance of exercise with proper caloric intake. It is important to identify attitudes, behaviors and weight management practices that could be detrimental to health or lead to an eating disorder(Burkes-Miller and Black, 1988). A checklist of warning signs should be provided to the gymnast and those involved in her life.

Another recommendation might be to have the gymnast spend more time with mental training to help decrease the occurrence of injuries. For far too long it has been assumed that when gymnasts fail to perform up to their ability, more and more repetition

is the answer. The risk of injury increases with longer practice time, the degree of difficulty of the routines, and age-related vulnerability of the skeletal system(Tofler, et al.,1996). The approach by Ravizza and Rotella(1981) suggests that mental training plays a crucial role in maximizing performance for most gymnasts. It is the quality of practice rather than quantity or repetition alone that is crucial to optimal performance. Approaches such as relaxation training and concentration improvement techniques are suggested. These strategies have been found to be most suitable to the closed nature of gymnastic performance. The strategies should be worked on with a sport psychologist who can determine which strategies work best for each individual. A by-product of a program such as this, may serve to reduce the amount of injuries or possible injuries. Nassar, medical services coordinator for USA Gymnastics, says that another strategy gymnasts should incorporate into their work outs are mastering the basic skills and training to prevent ankle, wrist, and back injuries through exercises. Consequently, they are more likely to have a long and healthy career(See VanAnderson, 1997).

For the parent who is looking for a gymnastics school, Sports Illustrated for Kids(1996) suggests you find a coach who has worked with gymnasts. Experience is a plus. Also, while there are no licensing requirements for gymnastics coaches in this country, it is a good idea to find a coach who either belongs to USA Gymnastics, the sport's governing body, or is affiliated with a gym that belongs to USA Gymnastics. Some coaches even have coaching accreditation through USA Gymnastics. That seal of approval is a good credential to look for(Kennedy, 1996).

Children require the support and presence of their parents in any activity(The Plain Dealer,1996). Parental involvement is important in all areas of the child's life: "There is increasing recognition that greater parent involvement in youth recreation activities is essential and desirable(Ryan, 1988). This involvement should have parents and coaches working together to increase the positive outcomes of participation. It is evident in the academic setting and should be just as evident in extracurricular activities. Parents are

often unprepared for the emotional experience they will encounter while watching their child participate in recreational sports(O'Dell and Tietjen, 1997). One suggestion for gymnastics schools is that they hold parent-coach conferences periodically, just as the schools hold parent-teacher conferences. They can be more aware of the goals of the athlete, as well as having the opportunity to give coaches some insight to the gymnast. Parents have often made comments that they themselves can share some information that would be helpful in coaching their own daughter. Not only will the parent become more aware and involved in the daughters progress, but the coach can gain more knowledge of the gymnast during this conference.

Fredericks(1985) reports that parents saw gymnastics as the answer to their search for an acceptable, exciting, and even somewhat prestigious athletic activity for their children. Simon advises that parents may not be experts on the sport, but their attitudes can dramatically affect the children who participate(See O'Dell and Tietjen, 1997). Specifically, Weiss recommends parents do a number of things to help provide a positive environment: 1. Be interested in the child's recreation participation by accepting their skill development. 2. Encourage the child to try a variety of activities early in their participation. 3. Acknowledge behaviors such as trying their best, demonstration of good sportsmanship and team-oriented play.4. Praise children when improvement over past performance is clearly observed, yet avoid making comparisons to other children. 5. Reassure the child that making mistakes is a natural part of learning a skill. At the same time emphasize effort and persistence. 6. Children are not miniature adults; they are interested in recreation activities for many reasons other than winning(See O'Dell and Tietjen, 1997). These issues and topics can be discussed during the "conferences" at an organizational meeting, and in a manual for parents.

Another recommendation is that a manual be developed by professionals for each and every gymnast that enters the competitive level. This manual might address some of the issues discussed in this project as well as other relevant and necessary information.

The manual should not only be developed and made available, but should be implemented in the gymnastics training program. An example might be to incorporate the manual into the gymnastics training by having a mandatory time to discuss issues presented in the manual. The manual might contain various worksheets that the gymnast would complete. For example, athletes should have some direction on how to set goals and evaluate their progress. Additionally, they must learn how to reestablish new goals. These are topics that should be a part of the training of gymnasts and coaches. Information could be made available for parents and educators. O'Dell and Tietjen(1997) advise parents to teach their children the value of working hard and the importance of setting realistic goals.

Gymnasts and former gymnasts expressed that "frustration" is a negative aspect of involvement in the sport especially when they were not able to do a skill . The use of imagery may be useful if properly applied. Imagery could be used to imagine achievement of a goal that is being worked towards in order to help the gymnast believe that the goal is attainable. Once again, just like goal setting, imagery and positive thinking should be based on rational assessment of abilities(Bunker, et al.,1997). Since goal setting is probably the most effective way of building self-confidence, setting measurable goals and achieving them will prove their own ability to the athlete. Consequently, there are feelings of enjoyment and self-worth in the achievement.

Further studies are suggested in the area of understanding the various reasons for leaving the sport. It would be interesting to gain the perspective of those who actually chose to stop participating. Understanding the concept and reason for burnout would be useful. With regards to athletics and academic achievement, further studies might examine the following: Do student athletes maintain higher grade point averages in order to continue to participate in sports? Or, because they are good students first and athletes second? Would they achieve high grades irrespective of the sports program? Do sports prove a significant incentive for a scholarship?

Ending comments are to remember that gymnastics is not a limiting and narrowing process. Anyone who is or has been gymnast should know something about anatomy, physical conditioning, diet and physics. Gymnastics is also related to the arts. "If anyone has some understanding of the beauty of gymnastics he or she also has some understanding of painting, sculpture, architecture, music, literature, dance and film"(Lingemann, 1980, p.64).

Knowledge gained about the sport and the athlete should be deemed important to keep the gymnastics environment what it should be. Undoubtedly there is more to be learned, but there is always a need to apply what we know.

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APPENDIX A

Former Gymnasts

*Level Reached in Gymnastics _____

THIS QUESTIONNAIRE IS BEING GIVEN AS PART OF A STUDY BEING DONE FOR COMPLETION OF MY MASTERS DEGREE. I AM STUDYING THE PERCEPTIONS AND FEELINGS OF CURRENT AND FORMER GYMNASTS TOWARD PARTICIPATING IN GYMNASTICS. THE RESULTS WILL HELP EDUCATE THOSE INVOLVED IN THE SPORT OF GYMNASTICS. ADDITIONALLY, I HOPE THE RESULTS WILL HELP SCHOOL TEACHERS AND ADMINISTRATORS HAVE A GREATER UNDERSTANDING OF THE FEMALE ATHLETE.

Thank you for your participation! Cheri DeLuca

(Former elite gymnast, state champion and judge, currently choreographing routines.)

TO WHAT EXTENT DO YOU AGREE THAT EACH OF THE FOLLOWING STATEMENTS DESCRIBES YOUR FEELINGSCircle your answer

Strongly Agree (SA), Agree(A), Undecided(U), Disagree(D), Strongly Disagree(SD)

- | | |
|--|-------------|
| 1. Participating in gymnastics helped me receive better grades. | SA A U D SD |
| 2. I eat more healthy foods because I was in gymnastics. | SA A U D SD |
| 3. I was in gymnastics because my parents wanted me to be. | SA A U D SD |
| 4. My social life suffered because of my involvement in gymnastics. | SA A U D SD |
| 5. My life would have been less stressful if I were not in gymnastics. | SA A U D SD |
| 6. I have more confidence in myself because I was in gymnastics. | SA A U D SD |
| 7. Making friends was easier because I participated in gymnastics. | SA A U D SD |
| 8. Participating in gymnastics can create an eating disorder. | SA A U D SD |
| 9. I think I was more healthy and fit than others who haven't done gymnastics. | SA A U D SD |
| 10. I am still involved in gymnastics in some capacity. | SA A U D SD |
| 11. Being in gymnastics, helped me stay out of trouble. | SA A U D SD |
| 12. Gymnastics helped me be a leader in activities at school. | SA A U D SD |
| 13. I participated in gymnastics mostly because it was fun. | SA A U D SD |
| 14. Because of my involvement in gymnastics, I know more about how to create goals for myself. | SA A U D SD |
| 15. Gymnastics has helped me learn how to manage my time better. | SA A U D SD |

APPENDIX A

- | | |
|---|-------------|
| 16. I did not get involved in drinking and drugs because I was in gymnastics. | SA A U D SD |
| 17. My coach(es) seemed to be supportive and caring. | SA A U D SD |
| 18. I would have studied more if I was not in gymnastics. | SA A U D SD |
| 19. I did gymnastics mostly for the exercise. | SA A U D SD |
| 20. Most of my friends were in gymnastics. | SA A U D SD |
| 21. Gymnastics helped me feel good about myself. | SA A U D SD |
| 22. I would recommend taking gymnastics to others. | SA A U D SD |
| 23. I did/or will attend college. | SA A U D SD |
| 24. I would have liked my coaches to make more positive comments. | SA A U D SD |
| 25. I think I missed out on activities I would have liked to have done because of my participation in gymnastics. | SA A U D SD |
| 26. My parents may have wanted me to do gymnastics more then I did. | SA A U D SD |
| 27. My grades would have been better if I were not in gymnastics. | SA A U D SD |
| 28. Participating in gymnastics put a lot of stress in my life. | SA A U D SD |
| 29. Being healthy and fit is something gymnastics helped me achieve. | SA A U D SD |
| 30. Because I was in gymnastics, I used my time less for studying. | SA A U D SD |

COMPLETE THE FOLLOWING:

- *Your Age _____
- *How many years you participated in gymnastics _____
- *Approximate hours you worked out in a week in gymnastics _____
- *Indicate highest grade completed in school _____
- *Did you compete in high school gymnastics? _____ college gymnastics? _____
- *Indicate what states your training was in _____

Circle the answer that best describes your academic performance

My grades were: A's and B's B's and C's C's and D D's and F's

Overall, what was the impact of your participation in gymnastics in your life?

What, if any, were the negative aspects of participating in gymnastics?

APPENDIX A

Continued

CURRENTLY PARTICIPATING * Indicate Current Level of Gymnastics _____

THIS QUESTIONNAIRE IS BEING GIVEN AS PART OF A STUDY BEING DONE FOR COMPLETION OF MY MASTERS DEGREE. I AM STUDYING THE PERCEPTIONS AND FEELINGS OF CURRENT AND FORMER GYMNASTS TOWARD PARTICIPATING IN GYMNASTICS. THE RESULTS WILL HELP EDUCATE THOSE INVOLVED IN THE SPORT OF GYMNASTICS. ADDITIONALLY, I HOPE THE RESULTS WILL HELP SCHOOL TEACHERS AND ADMINISTRATORS HAVE A GREATER UNDERSTANDING OF THE FEMALE ATHLETE.

Thank you for your participation! Cheri DeLuca

(Former elite gymnast, state champion and judge, currently choreographing routines.)

TO WHAT EXTENT DO YOU AGREE THAT EACH OF THE FOLLOWING STATEMENTS DESCRIBES YOUR FEELINGSCircle your answer **Strongly Agree (SA), Agree(A), Undecided(U), Disagree(D), Strongly Disagree(SD)**

1. Participating in gymnastics helps me get better grades. SA A U D SD
2. Being in gymnastics helps me have good eating habits. SA A U D SD
3. I am in gymnastics because my parents want me to participate. SA A U D SD
4. My social life suffers because of my involvement in gymnastics. SA A U D SD
5. My life would be less stressful if I were not in gymnastics. SA A U D SD
6. I have more confidence in myself because I'm in gymnastics. SA A U D SD
7. Making friends is easier because I'm in gymnastics. SA A U D SD
8. Participating in gymnastics can create an eating disorder. SA A U D SD
9. In comparison to others my age, I think I am more healthy and fit. SA A U D SD
10. When I'm finished doing gymnastics, I would like to stay involved in some capacity(coaching, judging,etc.). SA A U D SD
11. Being involved in gymnastics helps me stay out of trouble. SA A U D SD
12. Gymnastics helps me be a leader in activities at school. SA A U D SD
13. I participate in gymnastics mostly because it is fun. SA A U D SD
14. Because of my involvement in gymnastics, I know more about how to create goals for myself. SA A U D SD
15. Gymnastics has helped me manage my time better. SA A U D SD

APPENDIX A

Continued

- | | | | | | |
|--|----|---|---|---|----|
| 16. I do not get involved with drinking and drugs because I'm in gymnastics. | SA | A | U | D | SD |
| 17. My coach(es) seem to be supportive and caring. | SA | A | U | D | SD |
| 18. I would study more if I were not in gymnastics. | SA | A | U | D | SD |
| 19. I'm doing gymnastics for the exercise. | SA | A | U | D | SD |
| 20. Most of my friends are in gymnastics. | SA | A | U | D | SD |
| 21. Gymnastics helps me feel good about myself. | SA | A | U | D | SD |
| 22. I would recommend taking gymnastics to my friends. | SA | A | U | D | SD |
| 23. I would like to attend college. | SA | A | U | D | SD |
| 24. I would like my coaches to make more positive comments. | SA | A | U | D | SD |
| 25. I think I miss out on activities I would like to do. | SA | A | U | D | SD |
| 26. My parents may want me to do gymnastics more than I do. | SA | A | U | D | SD |
| 27. My grades would be better if I were not in gymnastics. | SA | A | U | D | SD |
| 28. Participating in gymnastics puts a lot of stress in my life. | SA | A | U | D | SD |
| 29. Being healthy and fit is something gymnastics helps me achieve. | SA | A | U | D | SD |
| 30. Because I'm in gymnastics, I use less time to study. | SA | A | U | D | SD |

COMPLETE THE FOLLOWING :

*Your Age _____

*What grade you're in at school _____

*How many years you've been in gymnastics _____

*Hours you workout in a week in gymnastics _____

*Do you compete in high school gymnastics? _____

Circle the answer that describes your academic performance best

My grades are: A's and B's B's and C's C's and D's D's and F's

Overall, what is the impact of your participation in gymnastics on your life?

What, if any, are the negative aspects of participating in gymnastics?

APPENDIX B

FREQUENCIES FOR:

FORMER GYMNASTS

PARTICIPATING IN GYMNASTICS HELPS ME GET BETTER GRADES (#1)

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 1.00	1	2.7	2.7	2.7
2.00	4	10.8	10.8	13.5
3.00	5	13.5	13.5	27.0
4.00	19	51.4	51.4	78.4
5.00	8	21.6	21.6	100.0
Total	37	100.0	100.0	
Total	37	100.0		

I EAT MORE HEALTHY FOODS (#2)

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 1.00	1	2.7	2.7	2.7
2.00	9	24.3	24.3	27.0
3.00	5	13.5	13.5	40.5
4.00	20	54.1	54.1	94.6
5.00	2	5.4	5.4	100.0
Total	37	100.0	100.0	
Total	37	100.0		

IN GYMNASTICS B/C MY PARENTS WANT ME TO BE (#3)

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 1.00	22	59.5	59.5	59.5
2.00	14	37.8	37.8	97.3
3.00	1	2.7	2.7	100.0
Total	37	100.0	100.0	
Total	37	100.0		

SOCIAL LIFE SUFFERS B/C OF GYMNASTICS (#4)

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 1.00	6	16.2	16.2	16.2
2.00	17	45.9	45.9	62.2
3.00	6	16.2	16.2	78.4
4.00	5	13.5	13.5	91.9
5.00	3	8.1	8.1	100.0
Total	37	100.0	100.0	
Total	37	100.0		

CURRENT GYMNASTS

PARTICIPATING IN GYMNASTICS HELPS ME GET BETTER GRADES (#1)

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 1.00	1	1.4	1.4	1.4
2.00	6	8.7	8.7	10.1
3.00	16	23.2	23.2	33.3
4.00	28	40.6	40.6	73.9
5.00	18	26.1	26.1	100.0
Total	69	100.0	100.0	
Total	69	100.0		

BEING IN GYMNASTICS HELPS ME HAVE GOOD EATING HABITS (#2)

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 1.00	2	2.9	2.9	2.9
3.00	11	15.9	15.9	18.8
4.00	38	55.1	55.1	73.9
5.00	18	26.1	26.1	100.0
Total	69	100.0	100.0	
Total	69	100.0		

I AM IN GYMNASTICS B/C MY PARENTS WANT ME TO BE (#3)

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 1.00	44	63.8	63.8	63.8
2.00	17	24.6	24.6	88.4
3.00	6	8.7	8.7	97.1
4.00	1	1.4	1.4	98.6
5.00	1	1.4	1.4	100.0
Total	69	100.0	100.0	
Total	69	100.0		

MY SOCIAL LIFE SUFFERS B/C OF GYMNASTICS (#4)

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 1.00	7	10.1	10.1	10.1
2.00	13	18.8	18.8	29.0
3.00	23	33.3	33.3	62.3
4.00	23	33.3	33.3	95.7
5.00	3	4.3	4.3	100.0
Total	69	100.0	100.0	
Total	69	100.0		

CREATES STRESS IN MY LIFE (#5)

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 1.00	4	10.8	10.8	10.8
2.00	19	51.4	51.4	62.2
3.00	4	10.8	10.8	73.0
4.00	7	18.9	18.9	91.9
5.00	3	8.1	8.1	100.0
Total	37	100.0	100.0	

GYMNASTICS CREATES STRESS IN MY LIFE (#5)

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 1.00	4	5.8	5.8	5.8
2.00	16	23.2	23.2	29.0
3.00	21	30.4	30.4	59.4
4.00	24	34.8	34.8	94.2
5.00	4	5.8	5.8	100.0
Total	69	100.0	100.0	

GYMNASTICS GIVES ME MORE CONFIDENCE (#6)

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 1.00	1	2.7	2.7	2.7
2.00	2	5.4	5.4	8.1
3.00	1	2.7	2.7	10.8
4.00	16	43.2	43.2	54.1
5.00	17	45.9	45.9	100.0
Total	37	100.0	100.0	

GYMNASTICS GIVES ME MORE CONFIDENCE (#6)

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 1.00	1	1.4	1.4	1.4
2.00	1	1.4	1.4	2.9
3.00	10	14.5	14.5	17.4
4.00	28	40.6	40.6	58.0
5.00	29	42.0	42.0	100.0
Total	69	100.0	100.0	

MAKING FRIENDS IS EASIER B/C I AM IN GYMNASTICS (#7)

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 1.00	2	5.4	5.4	5.4
2.00	5	13.5	13.5	18.9
3.00	6	16.2	16.2	35.1
4.00	15	40.5	40.5	75.7
5.00	9	24.3	24.3	100.0
Total	37	100.0	100.0	

MAKING FRIENDS IS EASIER B/C I AM IN GYMNASTICS (#7)

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 1.00	4	5.8	5.8	5.8
2.00	10	14.5	14.5	20.3
3.00	26	37.7	37.7	58.0
4.00	19	27.5	27.5	85.5
5.00	10	14.5	14.5	100.0
Total	69	100.0	100.0	

CAN CREATE AN EATING DISORDER #8

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 1.00	3	8.1	8.1	8.1
2.00	8	21.6	21.6	29.7
3.00	8	21.6	21.6	51.4
4.00	14	37.8	37.8	89.2
5.00	4	10.8	10.8	100.0
Total	37	100.0	100.0	

GYMNASTICS CAN CREATE AN EATING DISORDER #8

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 1.00	11	15.9	15.9	15.9
2.00	20	29.0	29.0	44.9
3.00	23	33.3	33.3	78.3
4.00	11	15.9	15.9	94.2
5.00	4	5.8	5.8	100.0
Total	69	100.0	100.0	

MORE HEALTHY AND FIT THAN OTHERS #9

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 4.00	11	29.7	29.7	29.7
5.00	26	70.3	70.3	100.0
Total	37	100.0	100.0	
Total	37	100.0		

STILL INVOLVED IN SOME CAPACITY #10

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 1.00	3	8.1	8.1	8.1
2.00	2	5.4	5.4	13.5
3.00	1	2.7	2.7	16.2
4.00	12	32.4	32.4	48.6
5.00	19	51.4	51.4	100.0
Total	37	100.0	100.0	
Total	37	100.0		

HELPED ME STAY OUT OF TROUBLE #11

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 2.00	1	2.7	2.7	2.7
3.00	6	16.2	16.2	18.9
4.00	13	35.1	35.1	54.1
5.00	17	45.9	45.9	100.0
Total	37	100.0	100.0	
Total	37	100.0		

HELPED ME BE A LEADER IN SCHOOL #12

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 2.00	5	13.5	13.5	13.5
3.00	9	24.3	24.3	37.8
4.00	15	40.5	40.5	78.4
5.00	7	18.9	18.9	97.3
99.00	1	2.7	2.7	100.0
Total	37	100.0	100.0	
Total	37	100.0		

MORE HEALTHY AND FIT THAN OTHERS #9

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 2.00	1	1.4	1.4	1.4
3.00	4	5.8	5.8	7.2
4.00	30	43.5	43.5	50.7
5.00	34	49.3	49.3	100.0
Total	69	100.0	100.0	
Total	69	100.0		

STAY INVOLVED IN SOME CAPACITY #10

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 1.00	1	1.4	1.4	1.4
2.00	6	8.7	8.7	10.1
3.00	26	37.7	37.7	47.8
4.00	16	23.2	23.2	71.0
5.00	20	29.0	29.0	100.0
Total	69	100.0	100.0	
Total	69	100.0		

HELPS TO STAY OUT OF TROUBLE #11

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 1.00	1	1.4	1.4	1.4
2.00	5	7.2	7.2	8.7
3.00	11	15.9	15.9	24.6
4.00	29	42.0	42.0	66.7
5.00	23	33.3	33.3	100.0
Total	69	100.0	100.0	
Total	69	100.0		

HELPS ME BE A LEADER IN SCHOOL #12

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 1.00	2	2.9	2.9	2.9
2.00	11	15.9	16.2	19.1
3.00	19	27.5	27.9	47.1
4.00	25	36.2	36.8	83.8
5.00	11	15.9	16.2	100.0
Total	68	98.6	100.0	
Missing System Missing	1	1.4		
Total	1	1.4		
Total	69	100.0		

IN GYMNASTICS MOSTLY B/C IT WAS FUN #13

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 3.00	2	5.4	5.4	5.4
4.00	24	64.9	64.9	70.3
5.00	11	29.7	29.7	100.0
Total	37	100.0	100.0	
al	37	100.0		

KNOW MORE ABOUT HOW TO CREATE GOALS FOR MYSELF #14

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 2.00	1	2.7	2.7	2.7
3.00	5	13.5	13.5	16.2
4.00	19	51.4	51.4	67.6
5.00	12	32.4	32.4	100.0
Total	37	100.0	100.0	
al	37	100.0		

HELPED ME LEARN HOW TO MANAGE TIME BETTER #15

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 2.00	3	8.1	8.1	8.1
3.00	4	10.8	10.8	18.9
4.00	15	40.5	40.5	59.5
5.00	15	40.5	40.5	100.0
Total	37	100.0	100.0	
al	37	100.0		

DID NOT GET INVOLVED IN DRINKING AND DRUGS B/C IN GYM. #16

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 1.00	1	2.7	2.7	2.7
2.00	11	29.7	29.7	32.4
3.00	7	18.9	18.9	51.4
4.00	12	32.4	32.4	83.8
5.00	6	16.2	16.2	100.0
Total	37	100.0	100.0	
al	37	100.0		

IN B/C IT IS FUN #13

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 2.00	2	2.9	2.9	2.9
3.00	5	7.2	7.4	10.3
4.00	35	50.7	51.5	61.8
5.00	26	37.7	38.2	100.0
Total	68	98.6	100.0	
Missing System	1	1.4		
Missing	1	1.4		
Total	69	100.0		

KNOW MORE HOW TO CREATE GOALS #14

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 3.00	3	4.3	4.3	4.3
4.00	27	39.1	39.1	43.5
5.00	39	56.5	56.5	100.0
Total	69	100.0	100.0	
Total	69	100.0		

HELPS LEARN TO MANAGE TIME #15

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 2.00	9	13.0	13.0	13.0
3.00	13	18.8	18.8	31.9
4.00	22	31.9	31.9	63.8
5.00	25	36.2	36.2	100.0
Total	69	100.0	100.0	
Total	69	100.0		

DO NOT GET INVOLVED IN DRINKING AND DRUGS #16

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 1.00	5	7.2	7.2	7.2
2.00	5	7.2	7.2	14.5
3.00	6	8.7	8.7	23.2
4.00	21	30.4	30.4	53.6
5.00	32	46.4	46.4	100.0
Total	69	100.0	100.0	
Total	69	100.0		

COACHES SEEMED SUPPORTIVE AND CARING #17

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 2.00	2	5.4	5.4	5.4
3.00	6	16.2	16.2	21.6
4.00	15	40.5	40.5	62.2
5.00	14	37.8	37.8	100.0
Total	37	100.0	100.0	
Total	37	100.0		

COACHES SEEM SUPPORTIVE AND CARING #17

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 3.00	5	7.2	7.2	7.2
4.00	27	39.1	39.1	46.4
5.00	37	53.6	53.6	100.0
Total	69	100.0	100.0	
Total	69	100.0		

WOULD HAVE STUDIED MORE IF NOT IN GYMNASTICS #18

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 1.00	5	13.5	13.5	13.5
2.00	18	48.6	48.6	62.2
3.00	7	18.9	18.9	81.1
4.00	7	18.9	18.9	100.0
Total	37	100.0	100.0	
Total	37	100.0		

WOULD STUDY MORE IF NOT IN GYM #18

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 1.00	9	13.0	13.0	13.0
2.00	25	36.2	36.2	49.3
3.00	10	14.5	14.5	63.8
4.00	21	30.4	30.4	94.2
5.00	4	5.8	5.8	100.0
Total	69	100.0	100.0	
Total	69	100.0		

DID GYMNASTICS MOSTLY FOR THE EXERCISE #19

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 1.00	5	13.5	13.5	13.5
2.00	22	59.5	59.5	73.0
3.00	3	8.1	8.1	81.1
4.00	6	16.2	16.2	97.3
5.00	1	2.7	2.7	100.0
Total	37	100.0	100.0	
Total	37	100.0		

DID GYM FOR THE EXERCISE #19

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 1.00	8	11.6	11.6	11.6
2.00	12	17.4	17.4	29.0
3.00	14	20.3	20.3	49.3
4.00	33	47.8	47.8	97.1
5.00	2	2.9	2.9	100.0
Total	69	100.0	100.0	
Total	69	100.0		

MOST OF MY FRIENDS WERE IN GYMNASTICS #20

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 1.00	2	5.4	5.4	5.4
2.00	6	16.2	16.2	21.6
3.00	6	16.2	16.2	37.8
4.00	14	37.8	37.8	75.7
5.00	9	24.3	24.3	100.0
Total	37	100.0	100.0	
Total	37	100.0		

MOST OF MY FRIENDS IN GYM #20

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 1.00	11	15.9	15.9	15.9
2.00	18	26.1	26.1	42.0
3.00	10	14.5	14.5	56.5
4.00	22	31.9	31.9	88.4
5.00	8	11.6	11.6	100.0
Total	69	100.0	100.0	
Total	69	100.0		

GYMNASTICS HELPED ME FEEL GOOD ABOUT MYSELF #21

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 3.00	4	10.8	10.8	10.8
4.00	17	45.9	45.9	56.8
5.00	16	43.2	43.2	100.0
Total	37	100.0	100.0	
Total	37	100.0		

WOULD RECOMMEND TAKING GYMNASTICS TO OTHERS #22

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 3.00	3	8.1	8.1	8.1
4.00	16	43.2	43.2	51.4
5.00	18	48.6	48.6	100.0
Total	37	100.0	100.0	
Total	37	100.0		

I DID/WILL ATTEND COLLEGE #23

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 4.00	8	21.6	21.6	21.6
5.00	29	78.4	78.4	100.0
Total	37	100.0	100.0	
Total	37	100.0		

WOULD HAVE LIKED COACHES TO MAKE MORE POSITIVE COMMENTS #24

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 2.00	9	24.3	24.3	24.3
3.00	10	27.0	27.0	51.4
4.00	12	32.4	32.4	83.8
5.00	6	16.2	16.2	100.0
Total	37	100.0	100.0	
Total	37	100.0		

MISSED OUT ON ACTIVITIES I WOULD HAVE LIKED TO HAVE DONE

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 1.00	7	18.9	18.9	18.9
2.00	9	24.3	24.3	43.2
3.00	10	27.0	27.0	70.3
4.00	9	24.3	24.3	94.6
5.00	2	5.4	5.4	100.0
Total	37	100.0	100.0	
Total	37	100.0		

HELPS ME FEEL GOOD ABOUT SELF #21

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 2.00	1	1.4	1.4	1.4
3.00	10	14.5	14.5	15.9
4.00	32	46.4	46.4	62.3
5.00	26	37.7	37.7	100.0
Total	69	100.0	100.0	
Total	69	100.0		

RECOMMEND TO OTHERS #22

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 1.00	3	4.3	4.3	4.3
2.00	4	5.8	5.8	10.1
3.00	15	21.7	21.7	31.9
4.00	31	44.9	44.9	76.8
5.00	16	23.2	23.2	100.0
Total	69	100.0	100.0	
Total	69	100.0		

WOULD LIKE TO ATTEND COLLEGE #23

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 2.00	1	1.4	1.5	1.5
3.00	3	4.3	4.4	5.9
4.00	4	5.8	5.9	11.8
5.00	60	87.0	88.2	100.0
Total	68	98.6	100.0	
Missing System Missing	1	1.4		
Missing Missing				
Total	1	1.4		
Total	69	100.0		

WOULD LIKE COACHES TO MAKE MORE POSITIVE COMMENTS #24

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 2.00	5	7.2	7.2	7.2
3.00	24	34.8	34.8	42.0
4.00	18	26.1	26.1	68.1
5.00	22	31.9	31.9	100.0
Total	69	100.0	100.0	
Total	69	100.0		

MISSED OUT ON ACTIVITIES #25

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 1.00	1	1.4	1.5	1.5
2.00	11	15.9	16.2	17.6
3.00	14	20.3	20.6	38.2
4.00	32	46.4	47.1	85.3
5.00	10	14.5	14.7	100.0
Total	68	98.6	100.0	
Missing System Missing	1	1.4		
Missing Missing				
Total	1	1.4		
Total	69	100.0		

PARENTS MAY HAVE WANTED ME TO PARTICIPATE MORE
THAN SELF

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 1.00	19	51.4	51.4	51.4
2.00	14	37.8	37.8	89.2
3.00	2	5.4	5.4	94.6
4.00	2	5.4	5.4	100.0
Total	37	100.0	100.0	
Total	37	100.0		

PARENTS WANT MORE THAN SELF #26

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 1.00	34	49.3	49.3	49.3
2.00	18	26.1	26.1	75.4
3.00	12	17.4	17.4	92.8
4.00	4	5.8	5.8	98.6
5.00	1	1.4	1.4	100.0
Total	69	100.0	100.0	
Total	69	100.0		

GRADES WOULD HAVE BEEN BETTER IF I WERE NOT IN
GYMNASICS #27

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 1.00	10	27.0	27.0	27.0
2.00	17	45.9	45.9	73.0
3.00	7	18.9	18.9	91.9
4.00	2	5.4	5.4	97.3
5.00	1	2.7	2.7	100.0
Total	37	100.0	100.0	
Total	37	100.0		

GRADES WOULD BE BETTER IN NOT IN GYM #27

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 1.00	21	30.4	30.4	30.4
2.00	19	27.5	27.5	58.0
3.00	18	26.1	26.1	84.1
4.00	8	11.6	11.6	95.7
5.00	3	4.3	4.3	100.0
Total	69	100.0	100.0	
Total	69	100.0		

GYMNASICS PUT A LOT OF STRESS IN MY LIFE #28

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 1.00	6	16.2	16.2	16.2
2.00	19	51.4	51.4	67.6
3.00	6	16.2	16.2	83.8
4.00	5	13.5	13.5	97.3
5.00	1	2.7	2.7	100.0
Total	37	100.0	100.0	
Total	37	100.0		

PUTS A LOT OF STRESS IN LIFE #28

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 1.00	8	11.6	11.6	11.6
2.00	15	21.7	21.7	33.3
3.00	20	29.0	29.0	62.3
4.00	20	29.0	29.0	91.3
5.00	6	8.7	8.7	100.0
Total	69	100.0	100.0	
Total	69	100.0		

BEING HEALTHY AND FIT IS SOMETHING GYM. HELPED ME
ACHIEVE #29

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 3.00	2	5.4	5.4	5.4
4.00	18	48.6	48.6	54.1
5.00	17	45.9	45.9	100.0
Total	37	100.0	100.0	
Total	37	100.0		

HELPS TO ACHIEVE HEALTHY AND FIT #29

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 2.00	1	1.4	1.4	1.4
3.00	2	2.9	2.9	4.3
4.00	31	44.9	44.9	49.3
5.00	35	50.7	50.7	100.0
Total	69	100.0	100.0	
Total	69	100.0		

USE TIME LESS FOR STUDYING #30

B/C IN GYMNASICS, USED TIME LESS FOR STUDYING #30

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 1.00	3	8.1	8.1	8.1
2.00	16	43.2	43.2	51.4
3.00	9	24.3	24.3	75.7
4.00	7	18.9	18.9	94.6
5.00	2	5.4	5.4	100.0
Total	37	100.0	100.0	
Total	37	100.0		

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 1.00	6	8.7	8.8	8.8
2.00	20	29.0	29.4	38.2
3.00	11	15.9	16.2	54.4
4.00	23	33.3	33.8	88.2
5.00	8	11.6	11.8	100.0
Total	68	98.6	100.0	
Missing System	1	1.4		
Missing	1	1.4		
Total	69	100.0		

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