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THE STRATEGIC USE OF SPORTS AND FITNESS ACTIVITIES FOR PROMOTING PSYCHOSOCIAL SKILL DEVELOPMENT IN CHILDHOOD AND ADOLESCENCE

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ABSTRACT: Physical activity in childhood and adolescence has shown significant declines in recent decades, while obesity rates and other related problems have soared. Promoting physical activity amidst the myriad of competing agendas for children and adolescents will be a challenge of immense proportions. By understanding some of the psychosocial dimensions of sports and fitness programs, child and youth care workers may be better able to diagnose individual needs and appropriately support personal development through physical activity. A theoretical model is offered in support of these objectives.

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Physical activity is essential for the maintenance of physical health and psychological well-being, yet participation rates among children and adolescents show disturbing downward trends (Garcia, Pender, Antonakos, & Ronis, 1998; Hovell, Sallis, Kolody & McKenzie, 1999; Kuntzleman & Reiff, 1992;Mota & Queiros, 1996). Changes in North American culture and lifestyle over the past century have been nothing less than dizzying. Most peoples' lives bear little external resemblance to those of their parents. Moreover, the rapidity of change as we move into the 21st Century will make future lifestyles even more dramatically different from what we know today. Perhaps we see this most in the experiences of our children who confront the legacy of rapid technological change in the adaptations they must make to survive and succeed. Unlike the physically demanding environments of their ancestors, our children's lives are increasingly shaped by forces requiring mental rather than physical response. Such lifestyles heighten the propensity of youth to spend long periods of their days in sedentary pursuits while in no way lessening their bodily and mental needs for physical activity (American College of Sports Medicine, 1998; Pate, Long & Heath, 1994).

From a developmental perspective, habits are strongest when they are ingrained early in life. The failure to instill strong and reliable exercise habits in our young will have serious repercussions for society as these children age, have children of their own and advance into old age (Aarts,

Paulussen, & Schaalma, 1997; Epstein, Coleman, & Myers, 1996; Garcia et al., 1998; Hovell et al., 1999).

When the societal push for increased physical activity became strongly evident in the 1980s, it was all too evident to health, medical, and exercise scientists that adults who had finally been convinced of the need for regular exercise nonetheless had great difficulty adhering to their programs. Most studies reflected a 50% dropout rate among initiates in the first six months of initiating a fitness program (Dishman, 1994).

Perhaps we fantasized that with the running craze, the popularity of community fitness events, the plethora of TV fitness shows, the explosion of fitness books and magazines, there would be a "trickle down" effect whereby the younger generation would grow up running alongside their baby-boomer parents. That was, perhaps, the dream, the vision – it certainly wasn't the reality. Not only did schools in North America begin dropping physical education classes from the curriculum (Centers for Disease Control, 1997), but the advent of home computers and the internet added to the sedentary options of children and adolescents (Pate, Trost, Felton, Ward, Dowda, & Saunders, 1997). The instant gratification of computer games became secondary to the infinite possibilities of "surfing the net." The motion picture industry also captured major pieces of the action – or more accurately, inaction – by creating guaranteed adrenaline highs for adolescents with films that surpassed all bounds of reality. How was a 10 km. run going to compete with these? The answer is poorly.

North America is in trouble – yet it is an insidious kind of trouble that doesn't look like war, plague, meteorological calamity, or environmental catastrophe. Adding a pound a year to anyone's weight is not going to arouse suspicion of imminent danger. We are perhaps the most obese society in the history of humanity and we show no signs of relinquishing this dubious honor (Bar-Or et al., 1998). We have created a world where activity is consciously excised from our daily lives, and the only way to recapture it is through concerted effort and willful commitment. Yet, motivation for this kind of commitment must compete against other choices that promise greater immediate gratification and certainly less expenditure of effort to attain. If interests in and experiences of rewarding physical activities are not repeatedly offered and positively reinforced in the lives of our children, the likelihood of their being motivated to exercise or to play sports will diminish in direct proportion to the ever-advancing challenges of adulthood and the proliferation of fast-reward, rapid-payoff, easy-gratification options that society will increasingly generate.

An overview of research on physical activity in childhood and adolescence should provide the necessary backdrop for recommending a model for use by youth and child care workers. The intention of this model is to enhance understanding of the psychosocial nature of different sport and fitness options and to illustrate a means for advising youth and adolescents about programs that will promote not only their physical health but also their psychological well-being.

OVERVIEW OF RESEARCH

Research data are clear. Our bodies and minds benefit in myriad ways from physical activity – and children and adolescents simply aren't getting enough of it. The overview presented in the sections below captures four major themes of research to date:

1. Physical health correlates of physical activity
2. Psychological health correlates of physical activity
3. Behavioral and social correlates of physical activity
4. Factors supporting exercise participation

1. Physical Health Correlates of Physical Activity

Our review of physical health focuses on activity levels, physiological indicators of health (e.g., blood pressure), and obesity.

Activity Levels. Studies encompassing multiple races including African-American, Latino, and Asian (Garcia et al.,1998; Hovell et al., 1999) and Portuguese (Mota & Queiros, 1996) all conclude that children become more sedentary as they age. Results from the Hovell et al. study suggest that youth are not acquiring sufficient individual or small group activity skills that might be sustainable in adulthood. Pate et al.'s (1994) epidemiological review found that girls were more likely than boys to decrease activity levels as they get older. They also noted that a large portion of males and the majority of females were not meeting health guidelines for physical activity.

Cardiovascular impact. Alpert and Wilmore (1994) reported that 2.8 million American children and adolescents aged 6-17 are considered to be hypertensive. They further noted that aerobic activity consistently reduced both systolic and diastolic pressure. Boreham, Twisk, Savage, Cran and Strain (1996) also found that physical activity improved systolic blood pressure in males and cardiorespiratory fitness in both males and females. Following a 15-week aerobic activity program for high school students, Looney and Rimmer (1997) observed significant reductions in total cholesterol levels.

Obesity. Trying to engage a person who is overweight in physical activity can be challenging (Bar-Or et al., 1998). As Thayer, Newman, and McClain (1994) note, people who are overweight favor eating as a method to change a bad mood. In this perspective, an approach addressing lifestyle, including diet and different types of exercise programs, is generally considered preferable (Epstein et al., 1996). While lifestyle and dietary changes are deemed desirable, research on children with high levels of total body fat mass and visceral adipose tissue showed that exercise alone, without dietary intervention, can significantly reduce body fat in obese children (Owens et al., 1999). Further, it has been noted

that diet quality improved as participation in physical activity increased (Rainey, McKeown, Sargent, & Valois, 1998).

Children's habits about physical activity form early in life. As Epstein et al. (1996) note, "It may be easier to shift activity in children who are not yet obese and prevent obesity rather than waiting until children are obese and then implementing exercise programs" (p.434).

Summary. In the face of declining levels of physical activity among our youth, evidence mounts concerning the beneficial effects of exercise on such physical parameters as cholesterol levels, blood pressure, cardiovascular disease, and obesity. Not only does physical inactivity have long-term implications for adult health and the health care system, but as will be shown below it has serious implications for children's psychological health.

2. Psychological Health Correlates of Physical Activity

Literally thousands of studies have been conducted on the psychological benefits of exercise (Gauvin & Spence, 1996). As Morgan (1997) indicates in his comprehensive summary of the literature, the psychological payoffs of regular participation in physical activity are substantial and reliable.

Self-Esteem. The most common psychological variable studied has been self-esteem (Baum, 1998, Boyd & Hrycaiko, 1997; Calfas & Taylor, 1994; Modrcin-Talbott, Pullen, Zandstra, Ehrenberger, & Muenchen, 1998). No matter the age, race, or manner in which self-esteem was measured, self-esteem improved with increased involvement in exercise. In fact, Delaney and Lee (1995) suggest that "it may be possible that increased self-esteem, arising from successful participation in exercise or sport, enables young people to develop a sense of self" (p. 87).

Depression and other mood states. Other studies investigating psychological correlates of exercise explored the effects on mood, particularly depression. Calfas and Taylor's (1994) review consistently found a positive improvement in affect with exercise. Thayer et al. (1994) state, "...of all the separate behavioral categories described to self-regulate mood, a case can be made that exercise is the most effective" (p. 921). Further supporting the benefits of exercise on mood, Page and Tucker's (1994) research showed that adolescents who exercised infrequently suffered more from loneliness, shyness, and hopelessness than those who exercised frequently.

Academic performance. Studies by Shepard (1997) and Lindner (1999) help dispel the belief that physical activity hampers academic performance by demonstrating exactly the reverse. Based on his research, Shepard (1997) concluded that "the rate of academic learning per unit of

class time is enhanced in physically active students, so that lack of curricular time is not a valid reason for denying children a daily program of quality physical education" (p.123). Lindner's study showed that "the perceived better academic performers were the students who were on average more physically active and had more frequent and intense involvement in sport and exercise" (p. 138). Based on a review of exercise benefits for adolescent girls, Baum (1998) concluded that girls "involved in athletics are less likely to drop out of school, and they are more likely to go on to college" (p. 747).

Summary. Research strongly suggests that exercise is an important component for developing the child's psychological, emotional, and academic well-being. Children who begin life feeling positively about themselves may be more likely to carry this attitude forward through life.

3. Behavioral and Social Correlates of Physical Activity

One may question whether the lack of participation in sports is part of a lifestyle that includes high risk behaviors and social patterns. While it may be difficult to attribute causality, we can look at the relationship between physical activity and other behaviors. The most common behaviors studied have been cigarette smoking, marijuana use, violent behaviors, dietary habits, and alcohol consumption.

Cigarettes and marijuana. Cigarette smoking has been consistently associated with inactivity in adolescence (Aaron et al., 1995; Coulson, Eiser, and Eiser, 1997; Pate, Heath, Dowda, & Trost, 1996; Winnail, Valois, McKeown, Saunders, & Pate, 1995). Pate et al.'s survey of 11, 631 U.S. high school students reported a significant association between low levels of physical activity and cigarette smoking. Moreover, a similar relationship was found between activity levels and marijuana usage. Winnail et al. suggest that students may be less inclined to begin cigarette smoking if they increase and/or sustain their physical activity level.

Diet. Dietary habits have also been found to be associated with activity level. Coulson et al. (1997) and Pate et al. (1996) found that those who were more physically active tended to eat more fresh foods. This conclusion supports Rainey et al.'s (1998) finding that increasing activity level improved diet quality.

Lifestyle. Delinquent behavior, violent acts, and alcohol consumption have been associated with physical inactivity in adolescence (Aaron et al., 1995; Levin, Smith, Caldwell, and Kimbrough, 1995; Silvia & Thorne, 1997). Further, adolescents who rated their health as worse than their peers' reported higher levels of illicit drug use and lower levels of physical activity (Rosenthal & Smith, 1996).

While physical exercise is generally associated with a more positive lifestyle in adolescence, an important consideration noted in the literature is the type of activity in which the adolescent engages. Aaron et al. (1995) found that males who participated in competitive team athletics were significantly more likely to initiate alcohol use than less active males. Similarly, Levin et al. (1995) found that participation in non-contact sports was associated with lower propensities for violent and delinquent behaviors while participation in contact sports had the opposite relationships.

Summary. Whether participation in physical activity minimizes the amount of time available for negative high-risk behaviors or is related more globally to such psychological constructs as self-esteem, participation is generally correlated with a healthier lifestyle.

4. Factors Supporting Exercise Participation

What conditions determine whether a child or adolescent will participate in some form of physical activity? According to Telama, Laakso, Yan and Viikari, (1997), "it is long-lasting participation—lasting at least three years—in organized sports during adolescence that makes the difference in physical activity [participation] in young adulthood" (p. 322).

Bungum, Pate, Dowda, and Vincent (1999) found that self-efficacy and school sport participation were the strongest predictors of children's adherence to physical activities. Moreover, Douthitt (1994) argues that in order to lay a foundation for lifelong exercise participation it is critical to provide all children with opportunities for success in physical education.

While studies have explored the relationship between socio-economic status and exercise participation, no clear patterns have emerged (Telama, Yang, Laakso, & Viikari, 1997; Tuinstra, Groothoff, Van Den Heuvel, & Post, 1998). On the other hand, Pate et al. (1997) found that exercise equipment in the home positively impacted rural African-American students' participation in sports.

When asked what served as barriers to exercise adherence (Allison, Dwyer, & Makin, 1999), students reported that time constraints due to school, other interests, and family were the most influential. In exploring enticements to exercise, Douthitt (1994) found that perceived romantic appeal of activities among boys and perceived athletic competency, global self-worth, and physical appearance for girls were the strongest.

One study found that participation in competitive sports and the student's mark in physical education class were the best predictors of later activity (Telama et al., 1997), while another concluded that physical characteristics, performance, and activity in adolescence were the best predictors for future exercise adherence for women (Glenmark, Hedberg, & Jansson, 1994).

Summary. A report from CDC's National Center for Chronic Disease Prevention and Health Promotion (1997) argues that early initiation of physical activities in children's lives is critical to developing lifelong fitness habits and reducing risk factors for chronic diseases associated with adult morbidity and mortality. As a cautionary note, however, research suggests that forcing children and adolescents to exercise can create negative attitudes toward physical activity (Taylor, Blair, Cummings, Wun, & Malina, 1999).

A MODEL FOR PROMOTING PSYCHOSOCIAL SKILL DEVELOPMENT

Child and youth care workers are often positioned in ways to guide and support activity participation among their clients. Understanding the overall benefits of physical activity as summarized above will hopefully provide some of the motivation for doing so. Yet, another basis for emphasizing fitness involvement derives from what has been referred to as the "character building" aspects of sports and exercise.

Evidence suggests that some activities may be more beneficial than others in terms of assisting adolescent development (Aaron et al., 1995; Levin et al., 1995). Not only do some sports reinforce competitiveness, aggressiveness, or even condone violence, but researchers have argued that individual activities may be more beneficial in helping adolescents develop life-long fitness habits (Hovell et al., 1999). To help child and youth care workers sort through the pros and cons of different activity options, a model for matching individual developmental needs with sports and fitness programs could be of value. With the aid of such a model, professionals would be better equipped to predict how different exercise programs might impact different types of psychosocial development.

The Logic of "Sports Builds Character"

How might different sports or activities influence different kinds of development? Each sport children play makes specific *psychosocial demands* of them. They may be asked to compete or to go it alone. They may be required to run full force to the finish line or dance to choreographed steps. For each required movement or interaction, there is a corresponding psychological space they enter within themselves so they can stay in the "game" (Gavin, 1988a, 1988b). Over long periods of training, these spaces become home base, giving shape and structure to who they are. The longer and more intensely they participate, the deeper the personal change (Danish, Nellon, & Owens, 1996; Gavin, 2001; Smith, 1999; Vealey, 1988).

When individuals choose to play a game that positions others as opponents, they are also choosing to reinforce in themselves behaviors and attitudes associated with competition. When they choose to ski down icy slopes or climb vertical rock faces, they deliberately challenge

the limits of mortality and invite risk into their lives. *In essence, each sport represents a menu of emotional and behavioral experience that individuals elect to have as part of their lives through participation. Over time, they may incorporate these elements into their self-definitions and into their behavioral repertoire* (Danish, et al., 1996; Gavin, 2001; Smith, 1999).

Many psychological methods for achieving personal change rely on a fundamental mechanism that is at the heart of sports and fitness. In a word, it's called *practice*. Because the world of sports is typically associated with themes of competition, performance, and winning, it may appear that the concept of practice has distinctly different objectives for fitness professionals than for those who have more of a therapeutic agenda for their clients. Yet, the practice dimension of any fitness program can be strategically used to enhance psychological growth processes and achieve such personal changes as becoming more assertive, developing greater self-control, becoming more self-reliant, and creating opportunities for more satisfying social interactions (Gavin, 2001).

Another connection that psychological approaches have to sport and exercise pursuits derives from the fact that - to be effective - personal growth programs require an arena where practice can reliably and safely take place. In successful change efforts, practicing new behaviors is best facilitated when conditions are controlled to protect and foster growth. Through a conscious and strategic approach to fitness programming, the action component of personal growth agendas can have a safe venue where growth is supported and reinforced.

Making Strategic Choices

The *strategic* use of physical activity for change implies that an individual's sport and fitness programming deliberately incorporates both physical and psychological agendas. A process of personal change initiated through the body is best achieved in partnership with the mind. Moreover, evidence suggests that when individuals become aware of and subsequently incorporate psychosocial motives in their fitness regimes, participation levels and satisfaction are enhanced (Gavin & Gauvin, 2000).

Left to their personal wisdom, individuals may take the path of least resistance. They may choose what reinforces habitual patterns. Gregarious people are likely to pick group-based activities. Aggressive people will select aggressive sports. Adventurous people might choose risky sports (Gavin, 1988a, 1992, 2001). As long as they stick to the familiar, change on a psychological level is likely to be modest - and in line with qualities they have already developed. While such choices may be uncomplicated, they also may do little to foster psychological growth.

Using physical activity as a path to personal growth may mean choosing activities that differ somewhat from what individuals normally select. Or sometimes the path may require doing current activities differently. How people "play the game" or participate in an activity can be as important in fostering personal development as the activity itself.

Personal development may involve creating opportunities for "non-dominant" aspects of personality to emerge and be reinforced. As Jung (1960) emphasized in his writings, there is a "shadow" side of our nature that is unknown or perhaps deliberately avoided. To become fully functioning human beings, individuals may profit from reinforcing aspects of their personalities that were suppressed or rejected earlier in life.

Identifying the Dimensions of Change

Based on literature concerning the psychological implications of sports and fitness, *Seven Psychosocial Dimensions* were identified as having the potential for guiding psychologicallybased exercise choices (Gavin, 1988a, 1988b, 2001). Generally speaking, the dimensions had to be (a) equally capable of characterizing individuals and activities, (b) related to practical life behaviors, (c) easily measured, and (d) readily explained.

The dimensions are referred to as *psychosocial* to broaden the perspective of personal change objectives to both psychological and social aspects of the individual. For instance, an individual may be highly competitive in nature (intrapersonal), yet this behavioral orientation manifests itself in an interpersonal realm.

Brief descriptions of the dimensions are provided in Table 1. These can be used in developing profiles of clients that may be helpful in guiding and supporting activity choices available to them.

Matching Client Needs with Activity Options

Physical activities can be chosen with psychosocial objectives in mind and to create avenues for practice and support of new behaviors. If, for example, an adolescent feels uncomfortable in social situations, supporting their conscious choice to engage in group activities can have positive consequences. Since exercise lowers the physiological sensations of anxiety (Morgan, 1997), a socially anxious adolescent would be able to engage in interactive activities with lowered anxiety. Over time, increased comfort while socializing during the activity would permit learning new ways of interacting. Of course, a shy adolescent who chooses to engage in interactive sports needs to do so with guidance. Without support and without awareness of the broader (nonphysical) agenda, adherence might be difficult.

The chart in Figure 2 offers a framework for understanding the influence potential of individual activities. Common fitness activities are arranged along each of the *seven psychosocial dimensions* according to the degree to which participation in an activity emphasizes or requires skill or behaviors related to the dimension (Gavin, 1988a, 1988b, 2001). For instance, activities toward the "risk-seeking" end of the Risk Taking Dimension (e.g., downhill skiing, martial arts) would require participants to run risks of injury or perhaps embarrassment, while activities toward the "risk-avoiding" end of this dimension (e.g., walking, t'ai chi) would be less likely to put participants at risk.

To understand a specific activity's psychosocial demands, one would locate the icon for the activity on each of the seven dimensions, thereby obtaining a relative (compared to other activities) profile of how this activity might influence psychosocial development over time. Comparing different activities' profiles to a client's profile can provide guidance about the directions toward which regular participation in that activity would develop the child or adolescent. From the perspective of intervention, having information of this nature permits child and youth care workers to appropriately reinforce client participation in different activities.

SUMMARY

While physical activity has multiple benefits of a psychological and physical nature, youth participation has declined notably in recent years. Not only does participation in sport and exercise programs buffer the individual against physical and emotional illness, it also has been shown to augment academic performance, self-esteem, and certain prosocial behaviors. Yet, all sports are not created equal. Research suggests that encouraging youth participation in some activities may be inadvisable from the perspectives of lifelong goals and social adjustment variables. The *Seven Psychosocial Dimensions Model* provides child and youth care workers with a framework for understanding the potential psychosocial impacts of long-term participation in a number of common sport and fitness options. Applying this information to practice contexts allows professionals to appropriately guide clients toward constructive choices.

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Table 1
Definitions of Seven Psychosocial Dimensions

1. SOCIABILITY

Social (interactive) - Nonsocial (noninteractive): A dimension which assesses the degree to which the individual or activity is characterized by engagements of a social or interactive nature as would be indicated through active involvement with others, verbal and nonverbal exchanges, but not merely the presence of others vs. ones that are individualistic, noninteractive and need or goal satisfying on one's own.

To assess the .....

PERSON: Does the individual spend time with others to achieve goals or satisfy personal needs or does he or she tend to be alone more of the time while attempting to achieve goals or satisfy personal needs?

ACTIVITY: Does an exercise program require active verbal or nonverbal interactions (in group processes or in achieving outcomes) between participants in order to achieve some end or satisfy some need or do participants essentially exercise on their own without social involvement (even though it may be in a group context)?

2. SPONTANEITY

Spontaneous (intuitive) - Controlled (analytical): A dimension which evaluates the degree to which the individual or activity is characterized by flexible, intuitivelyguided or spontaneous behaviors vs. ones that are more programmed, inflexible, controlled, or analyticallyguided.

To assess the .....

PERSON: Does the person tend to be highly analytical, logical and structured, exhibiting "programmed" or highly controlled behaviors or is he/she more spontaneous and creative, showing high levels of intuitivelyguided thought and flexibility in action?

ACTIVITY: Does the exercise program require participants to follow inflexible patterns or structures, to move in programmed ways, or to be bound by logical-rational processes or does it call for creative, unprogrammed, or spontaneous movements that may be either self-initiated or reactive to those of other participants?

3. MOTIVATION

Intrinsicallymotivated (self-directed) - Extrinsicallymotivated (other-directed): A dimension which assesses the degree to which the individual or activity relies upon motivation for engagement deriving from within the person (intrinsic) or from external reinforcements for action, including social support, rewards/penalties, or amusement (extrinsic).

To assess the .....

PERSON: Is the person self-motivating, "self-propelled" and disciplined to persist, to endure difficulty and discomfort or does he/she require situational support and rely on external factors to provide incentives and motives for action?

ACTIVITY: Does the exercise program provide extrinsic motivation for involvement by virtue of social support, entertainment, environmental support (e.g., music, attractive environments) or does it require participants to be intrinsicallymotivated or disciplined, to expend mental effort in initiating and continuing action, to engage in self-talk or other motivational dynamics so as to create ongoing involvement?

4. AGGRESSIVENESS

Aggressive (forceful) - Non-aggressive (nonforceful): A dimension which assesses the degree to which the individual or activity is characterized by a need for dominance, mastery and control over situations, objects or others through forceful actions.

To assess the .....

PERSON: Does the person act in a forceful manner in order to dominate or master situations or others or does he/she manifest an absence of force or driving energy in relation to the mastery of others or situations?

ACTIVITY: Does the activity require participants to express forceful action to achieve mastery or dominance or does it rely upon other forms of expression including more fluid or congruent actions?

5. COMPETITIVENESS

Competitive (rivalrous) - Non-competitive (nonrivalrous): A dimension which assesses the degree to which the individual or activity is characterized by concern about rivalry with others or the desire to emerge as better than others according to certain criteria.

To assess the .....

PERSON: Does the individual exhibit competitive behaviors with the intention of emerging as best or better than others who are considered rivals or does he/she either avoid or not conceive of others as rivals or situations (as) containing elements of rivalry?

ACTIVITY: Does the activity pit participants against one another in a manner whereby there are winners and losers, that is, an inherent dimension of rivalry or is the situation devoid of necessary competition between participants? (Note: Even though participants may enter with a competitive attitude, a noncompetitive activity would not serve to foster that attitude by virtue of its rules of conduct, processes or outcomes.)

6. MENTAL FOCUS

Focused (concentrated) - Unfocused (dispersed): A dimension which assesses the degree to which the individual or activity is characterized by an ability to or requirement of "single-mindedness," concentration or focus vs. an inability to or lack of need for concentrated thought or focus and the tendency to be dispersed in thought and action (i.e., unfocused).

To assess the .....

PERSON: Does the person tend to be able to focus on one thing at a time rather than doing a number of activities simultaneously? Is he/she able to readily develop a state of "single-mindedness" or concentration or does he/she tend to be scattered and dispersed in thought and action, having great difficulty in focusing?

ACTIVITY: Does the activity require participants to concentrate, to focus their attention, to be mentally involved if not consumed vs. allowing participants to "free wheel" in thought processes, to wander, to be dispersed and unfocused?

7. RISK TAKING

Risk-seeking (adventurous) – Risk-avoiding (cautious): A dimension which assesses the degree to which the individual or activity is characterized by risky, daring or adventurous behaviors where either psychological or physical well-being may be at stake vs. those more oriented toward feelings of security, safety or certainty.

To assess the .....

PERSON: Does the person tend to choose activities that have some risk involved or are perceived as being adventurous and daring, including possibilities of physical harm or other adverse outcomes - or does he/she gravitate toward activities that are predictably safe, exhibiting a high level of caution in behavioral expressions?

ACTIVITY: Does the activity require participants to take chances, to be adventurous, to be daring in action or does it emphasize more secure and safe behavioral engagements, minimizing risks of psychological or physical harm?

Figure 1
A model for understanding the relative psychosocial demands or requirements for participation of common fitness programs and sports on the Seven Psychosocial Dimensions.