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Motivation for Youth Participation in Sport and Physical Activity: Relationships to Culture, Self-Reported Activity Levels, and Gender

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The purpose of the present investigation was to compare participation motives of youth in competitive sport versus physical activity using culture, self-reported physical activity levels, and gender as independent variables. Participants were 1,472 boys (n=822) and girls (n=650) from the United States, Australia, and New Zealand. Three self-report inventories were administered to all participants to determine the amount and frequency of participation as well as participation motives for competitive sport and physical activity. Results from principal component factor analyses revealed stability across cultures in the four factors describing competitive motives (i.e., competition, social/energy, fitness/fun, teamwork) as well as from the four factors describing physical activity motives (i.e., intrinsic, extrinsic, fitness, energy release) accounting for 44% and 51% of the variance, respectively. Results from the 3 x 2 x 3 (Physical Activity Frequency x Gender x Culture) MANOVA's on the competitive sport and physical activity questionnaires revealed significant multivariate main effects for all three independent variables for both questionnaires. Post hoc tests indicated that all four factors were related to these main effects across competitive and physical activity motives. Results are discussed in terms of the differing motives for sport and physical activity and the importance of understanding the particular social milieu in which these activities occur.

KEY WORDS: Competitive Sport, Culture, Participation Motivation, Physical Activity

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Over the past 15 years, a great deal of attention in sport psychology has been placed in identifying the motives for participating in competitive youth sports (see Clews & Gross, 1995; Morris, Clayton, Power, & Jin-Song, 1996; Weiss & Chaumeton, 1992 for reviews). With an estimated 25 million youth participating in competitive sports, it is no wonder why researchers have been interested in this area. In addition to understanding the reasons for youth participation in competitive sports, sport psychologists have become interested in understanding why individuals sustain and continue involvement, as well as psychosocial factors relating to this involvement (e.g., self-esteem, peer and parental influences, competitive trait anxiety, perceived competence).

Participation in Competitive Sport

The majority of early studies on youth participation motivation in competitive sport have been descriptive in nature (Gill, Gross, & Huddleston, 1983; Gould, Feltz, & Weiss, 1985; Orlick & Botterill, 1975), making use of questionnaires that typically ask respondents to rate the importance of a range of participation motives either using a specific sport or sport in general. Across a variety of these earlier descriptive studies, motives that consistently appear include having fun, skill development, affiliation, fitness, challenge, and success/status. To complement these participation motivation studies, researchers were also interested in why youngsters drop out or discontinue playing youth sports (Klint & Weiss, 1987; Sapp & Haubenstricker, 1986).

These early studies have laid the foundation for more contemporary research that is more theoretically based (Brustad, 1993, 1996; Gould & Petlichkoff, 1988; Klint & Weiss, 1987; McCullagh, Matzkanin, Shaw, & Maldonado, 1993; Weiss & Hayashi, 1995). The three theoretical models that have proven to be most useful have been competence motivation theory (Harter, 1981), achievement goal orientation theory (Maehr & Nicholls, 1980; Nicholls, 1984), and self-determination (intrinsic/extrinsic motives) theory (Deci & Ryan, 1985). Competence motivation theory argues that an individual's desire to demonstrate competence through mastery experiences is the basis for intrinsic motivation and successful mastery experiences lead to continued motivation and participation. Achievement goal orientation theory suggests that people are either primarily motivated to demonstrate competence and skill mastery (task orientation) or to demonstrate ability through social comparison with other individuals (ego orientation). Finally, self-determination theory, like competence motivation theory, views the

achievement and striving toward competence as central to one's motivation and interest/enjoyment in participation. However, there is a recognition that both intrinsic and extrinsic motives are potentially operating when individuals make decisions about participating and continuing their involvement in physical activity/sport. Intrinsically motivated individuals are primarily motivated by engagement in the activity itself through competence (the desire to engage in challenges and exercise, and expand skills) and enjoyment (the desire to have fun, pursue interests, be stimulated), whereas extrinsically motivated individuals participate to obtain rewards or outcomes that are separate from the behavior itself (e.g., desire to improve one's appearance, winning). Although we have learned a great deal concerning participation motivation in competitive youth sports, Weiss and Chaumeton (1992) note that we need more information concerning the impact of significant others such as parents and peers on participation motives. In fact, recent research (Brustad, 1996; Kimiecik, Horn, & Shurin, 1996) has begun to investigate the effects that parents and significant others have on youngsters' participation in competitive youth sport programs.

Physical Activity/Exercise Participation

It is interesting that so much attention in the sport psychology literature has been focused on understanding children's motives for sport participation, yet there is a dearth of literature investigating children's motives to participate in physical activity and exercise. This is in spite of the fact that in today's society, children are not only less fit than children of past generations, but many children lead inactive and sedentary lifestyles (U.S. Department of Health and Human Services, 1990, 1996). If this pattern of inactivity continues into adulthood, then our next generation may be at higher risk for chronic degenerative diseases. In fact, there is evidence from several longitudinal studies to suggest that other cardiovascular health disease risk factors such as hypertension and high cholesterol track from childhood into adulthood (Webber, Srinivasan, Wattigney, & Berenson, 1991).

Due to the positive relationship between regular exercise and health-related fitness in adults, there has been an increasing interest in enhancing children's exercise patterns with the hope that these patterns will carry over into adulthood. Strong recommendations (Sallis, Simons-Morton, Stone et al., 1992; Sallis, Nader, Broyles et al., 1993) have been put forth advocating an increased emphasis on children's moderate to vigorous physical activity and their health-related fitness. In addition, this concern over the inactivity

of our nations' youth has resulted in the call for increasing youngsters' participation in moderate-to-vigorous physical activity with the *Healthy People 2000* report (U.S. Department of Health and Human Services, 1990).

In general, these recommendations, although well-intentioned, have not always led to positive outcomes for our youth. Simply offering physical education programs that emphasize health-related physical fitness and moderate-to-vigorous physical activity is no guarantee that children in those programs will adopt a physically active lifestyle that carries over into adulthood. For example, one of the most popular procedures adopted by physical education curriculums has been to emphasize fitness testing as a means of motivating children to become more physically active. However, there are a number of potential problems when utilizing fitness testing as a means of motivating youngsters to be active (Fox & Biddle, 1988; Whitehead & Corbin, 1991). Some research by Whitehead and Corbin (1991) has found that the feedback given by adults in fitness testing environments may have an unintended negative effect on some children's motivation to be physically active. Specifically, they found that children who were told that they performed below average exhibited decreases in intrinsic motivation toward the activity. In addition, an adult model (i.e., fitness testing and exercise prescription) has often been adopted for children.

However, children are not miniature adults and an understanding of their motivation for physical activity is essential to maximize program effectiveness. Researchers (Sallis, et al., 1992, 1993) are just beginning to identify the determinants of physical activity in children although little is known, especially from a motivational and psychosocial perspective. Some interesting research has been conducted (Frederick & Ryan, 1993; Ryan, Frederick, Lepes, Rubio & Sheldon, 1997) on physical activity motives revealing that although extrinsic motives concerning body-related outcomes (e.g., becoming more fit, improving appearance) were highly rated as reasons for initiating physical activity programs, adherence was more reliably related to intrinsic motives concerning enjoyment and competence. Unfortunately, their studies focused on adult populations and it remains to be seen whether these findings generalize to youth participants. The caution of not generalizing from one age group to another was highlighted in a large scale study of Australian sport and physical activity participants ranging in age from 6 to over 60 years old (Morris, Clayton, Power, & Jin-Song, 1996). Specifically, results revealed that motives for participating in a variety of sports and physical activities differed across age groups with young participants rating fun and learning new skills higher, whereas older participants rated health and fitness and relaxation as more important. In addition, since traditional sports and more exercise-related activities were included in the sample, it was difficult to determine specific differences based on the type of participation (i.e., sport versus exercise)

Therefore, if we are to achieve the goals put forward by the *Healthy People 2000* report, it is imperative that we obtain a better understanding of the motivational determinants of youth participation in physical activity and competitive sport. This understanding will hopefully help inform the development of programs that optimize motivation and participation in regular physical activity. Thus, one purpose of the present investigation was to compare motives for participation of youth in competitive sport versus physical activity. The age group of 13-18 years was utilized since this age has been underrepresented in previous research with most studies focusing on participation of younger participants (below the age of 13) or adult populations (Weiss, 1998)

Cross Cultural Analyses

The role of culture in explaining variability in human behavior has long been considered in the anthropological and sociological studies of play, games, and sport. In a seminal paper, Duda and Allison (1990) suggested that sport and exercise psychology should begin to systematically incorporate culture and ethnicity into its research agenda. Specifically, an analysis of the *Journal of Sport and Exercise Psychology* from 1979-1987 was conducted to determine the focus of research from a cross-cultural perspective. Results revealed that approximately 96% of the empirical papers (N=186) contained data from North America and none of the conceptual papers (N=13) focused on ethnicity. We conducted a follow-up study from 1988 through 1997 and found some improvement although the lack of cross-cultural data is still evident. Specifically, empirical articles from the *Journal of Sport and Exercise Psychology* were reviewed from 1988 to 1997. Results revealed that of the 252 empirical articles, 35 (14%) collected data outside of North America. Furthermore, only four studies actually directly compared data collected in more than one country from a cross cultural or cross national perspective. Thus, although there has been a trend to begin to publish data collected outside of North America, there still is a dearth of studies which attempt to compare responses and data across countries and/or cultures. This trend is particularly disturbing since one of the most important aspects of sport and exercise psychology is the influence and understanding of social psychological and sociocultural factors in sport and exercise settings. This void is certainly problematic regarding both sport and exercise participation. Specifically, literature on assimilation in sport provides evidence of cultural variation in style

and meaning of the activity even when ethnic groups seem to adopt the sport forms of the mainstream (Allison, 1982, 1988; Blanchard, 1974). That is, although we may find members of ethnic groups participating in specific sports such as baseball and basketball, it appears that these groups utilize such activities as expressions of their own ethnic identity (Allison, 1988). Similarly, research investigating participation motives in competitive youth sports has found that cultural factors do indeed have an impact on these motives (Duda & Allison, 1990).

Regarding cross cultural differences in exercise behavior and physical activity, a few studies have demonstrated significant differences between ethnic groups in exercise behavior (Castro, Baezconde-Garbanati, & Beltran, 1985; Kasl, 1984). Significant variations in the frequency and intensity of exercise involvement across different cultures and ethnic groups should be pertinent to exercise psychologists who are interested in determining factors that relate to exercise behavior. Furthermore, research in the leisure sciences has indicated that ethnicity is a critical factor in predicting recreational physical activity patterns in pluralistic countries (Allison, 1988).

Taken together, these studies indicate that if cultural variations in sport and exercise are not considered, evolving theoretical perspectives may be misleading. This lack of cross-cultural data led Duda and Allison (1990) to state, «the potential theoretical and practical benefits of cross-cultural analyses in sport and exercise psychology are innumerable» (p. 126). Consequently, Duda and Allison (1990) argue that sport and exercise psychologists who attempt to isolate correlates of physical activity choice and participation patterns, should be aware that culture and ethnicity is an important predictor of such behaviors. In essence, comparative studies in sport and exercise psychology would enhance the prediction and understanding of recreational sport/exercise preferences and involvement.

Therefore, a second purpose of the present investigation was to examine the relationship between culture and participation in both sport and exercise settings. Specifically, the United States, Australia, and New Zealand were included in the cross-cultural analysis due to the variety of sports that are practiced as well as the different cultures that support these sporting activities. Thus, although these three cultures might all be considered «Western Cultures» we feel that they should not be lumped together since there are a number of differences among them regarding sport and physical activity involvement. For example, previous research (Weinberg, Grove, & Jackson, 1992) has revealed differences (as well as similarities) among these cultures in their approach to sport/physical activity participation, popularity and types of different sports, as well as the meaning that sport has in each culture.

Gender and Level of Participation

In addition to the above stated purposes, the present investigation also explored the relationship of gender and frequency of participation as independent variables (in addition to culture) to the motives for participating in sport and physical activity. Previous research supports the inclusion of these factors (at least in an exploratory fashion), although at times, results have been inconsistent (Brodkin & Weiss, 1990; Brustad, 1996; Kimiecik, Horn, & Shurin 1996; Longhurst & Spink, 1987; Morris, Clayton, Power, & Jin Song, 1996; Sallis, Simons-Morton, Stone et al., 1993; Weiss & Chaumeton, 1992). For example, in early research investigating gender differences in participation motives, girls were found to place greater emphasis on friendship and fitness than boys whereas boys rated achievement/status higher than girls (Gill, Gross, & Huddleston, 1983; Gould, Feltz & Weiss, 1985) Longhurst and Spink (1987), in an Australian sample, found little differences between boys and girls except that girls placed more emphasis on learning skills than did boys. Finally, using a large Australian sample, Morris, Clayton, Power, and Jin-Song (1996) found that in general, boys tended to be more motivated by ego-oriented goals (e.g., competition/status), whereas girls were motivated more by task-oriented goals (e.g., cooperation, health, learning skills). However, most of the previous research with youth has focused on young children (ages 6-12) as well as on competitive sport whereas the present investigation will target adolescents, ages 13- 18, as well as assessing motives for participation in both competitive sport and physical activity/exercise.

The level of participation and its relationship to participation motivation of adolescents has received little attention in the previous empirical literature. However, in research involving exercise adherence and the stages of change model (Prochaska, DiClemente, & Norcross, 1992) it is hypothesized that individuals at different stages of exercise participation are motivated by different factors. In essence, people differing in exercise experience and current physical activity involvement require different motivational approaches and strategies. In addition, individuals' reasons for starting an exercise program are different from continuing a program over time. Specifically, previous research (Ryan, Fredrick, Lepes, Rubio, & Sheldon, 1997) has revealed that initial motives for participation tend to be more extrinsic in nature (e.g., weight control, appearance), whereas motives relating to adherence tend to be more intrinsic in nature (e.g., enjoyment, competence). Based on the above research, it would appear that the level of participation in sport and physical activity would be related to individuals' motives for participation.

Therefore, frequency and extent of participation was included in the present design as an independent variable.

Method

Participants

Participants were 1,472 boys (n=822) and girls (n=650) ranging in age from 13 to 18. The subjects were drawn from different geographical areas within the United States (n= 474), Australia (n=577), and New Zealand (n=421). Specifically, data sites within Australia included, Woolongong, Brisbane, Toowoomba, and Perth representing both east and west coast populations. The United States sample came from the midwest, east, and western regions of the country. The New Zealand data were collected in the South Island. Informed consent procedures were strictly adhered to at each data collection site. The mean ages were 15.5 for the United States, 15.8 for Australia, and 15.3 for New Zealand.

Psychological Inventories

Three self-report psychological inventories were administered to each participant by a trained experimenter giving a standard protocol and set of instructions so that test administration was standardized across the different countries. Besides the three questionnaires, the packet contained a cover sheet assessing demographic information such as gender, age, years in competitive sport, sport(s) played, country, and highest level of competitive sport experience. The three questionnaires were administered in group settings and the experimenter was available to answer any questions regarding specific inventory items. The experimenter also stressed the fact that the questionnaires would appear to have similar items. However, one would be related to their participation in competitive sport activities, whereas the other focused on their participation in exercise and physical activity. Pilot testing conducted in the United States revealed that the questionnaires could be completed in approximately 10-15 minutes.

Participation Frequency. The frequency and amount of moderate-to-vigorous physical activity was assessed by using two peer comparison questionnaires and one absolute measure. In the first peer comparison questionnaire, youth were asked to indicate how much exercise they engaged in over four different situations (during and after school, on weekends, and in general throughout the year) by comparing themselves with their same-sex peers. Exercise was defined for the participants as «any physical activity that gets your heart pumping fast and makes you breathe fast and sweat for at least 10 continuous minutes». Participants' responded to each of the four situations on a scale of «1» (*much less than same- sex peers*) to «5» (*much more than same-sex peers*). Their responses were then summed and averaged to obtain a single same-sex comparison physical activity score. Kimiecik et al. (1996) found Cronbach's alpha to be .75 for this 4-item scale and test-retest reliability over one week to be .91.

The second peer comparison questionnaire included the same four questions but asked each youth to compare his or her level of exercise to all peers (i.e., both boys and girls). Scores were then summed to produce an overall measure of physical activity in comparison to all peers. Alpha reliability was found to be .78 and test-retest reliability was calculated at .84 providing acceptable reliability (Kimiecik, Horn, & Shurin, 1996).

Finally, to provide an absolute (as opposed to relative) measure of participants' physical activity and competitive sport participation, four questions were asked. Specifically, participants separately rated how often (i.e., how many times per week) they participated in physical activity and competitive sport. In addition, they were asked how long, in general, did they participate in the above activities (less than 10 minutes, 10-20 min., 20-30 min., 30-60 min., more than 60 min.). It should be noted that three different measures of participation in physical activity and sport competition were included due to the recognition in the exercise and health science literature that moderate-to-vigorous physical activity is a difficult construct to measure with youth populations. Furthermore, Kimiecik, Horn, and Shurin (1996) found that their three separate measures of children's physical activity were moderately correlated indicating that each measure may offer some unique information regarding participants' physical activity levels.

Reasons for Participation in Competitive Sport and Physical Activity

To assess youth participation in competitive sport and physical activity two virtually identical questionnaires were employed with the exception that one asked participants to respond to the questions in relation to participation in competitive sport, whereas the other questionnaire asked participants to respond in relation to participation in fitness/exercise activities. Specifically, the questionnaire developed by Gould, Feltz, and Weiss (1985) was utilized to measure the importance of different reasons for participation in competitive sport. This is a 22-item inventory with each question scored on a 3-point Likert scale from «1» (*not at all*) to «3» (*often*). The instructions noted that there are many different reasons to participate in competitive sport and we are interested in their own unique reasons for participation. The items from the questionnaire were derived by an assessment of the previous sport psychology literature on participation motivation in sport settings. As noted above, the reasons for participation in the fitness/exercise questionnaire paralleled the competitive sport questionnaire with the exception that all questions were related to physical activity instead of competitive sport. For example, an item on the competitive sport questionnaire asked participants to rate the importance of playing competitive sports because «I like the challenge». This item's counterpart on the fitness/exercise questionnaire asked participants to rate the importance of participating in physical activity because «I like the challenge». In addition, slight modifications were made to the fitness/exercise questionnaire when the question from the competitive sport questionnaire involved teammates. Specifically, these questions were reworded to include other fitness participants/friends instead of teammates.

Results

To determine the internal consistency of the two participation motivation questionnaires, Cronbach's Alpha was conducted across the entire sample and within each culture. Results revealed overall internal consistency coefficients for the entire sample of .93 and .91 for the reasons for participation

in competitive sport and physical activity, respectively. For competitive sport, the internal consistencies were .94, .91, and .91 for the Australian, New Zealand, and United States samples, respectively. For physical activity, the Alpha reliabilities were .91, .90, and .92 for the Australian, New Zealand, and United States samples, respectively. Thus both across the entire sample and within each culture, the two participation motivation scales revealed high internal consistency. Means and standard deviations for the most important reasons for participation in competitive sport and physical activity are presented in Tables, I and II, respectively.

Factor Analysis

In order to determine if there were common themes both within and across the two questionnaires, each inventory was subjected to a principal component factor analysis. A minimal loading of .40 was established as a criterion value in the interpretation of individual items. Those items loading more than .40 on two factors were considered complex and not used in interpreting the factor structure. For each factor analysis, every factor demonstrated eigenvalues of greater than 1.0. Finally, separate factor analyses were conducted on the overall sample and for each culture separately. Results revealed stability in the factors across cultures (i.e., the four general factors and specific loadings within each factor were consistent across the samples), thus only the overall factor structure for each questionnaire will be reported.

Results of the factor analysis for participation motives in competitive sport revealed four different interpretable factors. The individual items comprising the factors are presented in Table III. Factor 1 was labeled competition and related to the excitement of competition and the status/rewards it supplied. Thus, this factor appears to have both extrinsic and intrinsic motives attached to it since one aspect of competition might relate to winning, status, and the seeking of other rewards (extrinsic motivation), whereas another aspect could be related to improving competence and enjoyment of competition itself (intrinsic motivation). This factor accounted for the greatest percent variance of the factors at 33.9%. Factor 2 was termed social/energy and related to the affiliation of being with friends and the release of energy associated with competitive sports. The third factor was labeled fitness/fun and involved the fact that competitive sports provides an opportunity to get or stay fit and to have fun. The final factor was termed teamwork and related to being part of a team and enjoying the teamwork. These four factors accounted for approximately 44% of the variance.

TABLE I
Means and SD for the Most Important Reasons for Participation in Competitive Sports

Reason	United States			Australia			New Zealand		
	Means	SD	Rank	Means	SD	Rank	Means	SD	Rank
To have fun	2.93	.39	1	2.63	.65	6	2.88	.42	1
To improve my skills	2.90	.44	2	2.55	.52	8	2.84	.57	3
To stay in shape	2.85	.52	3	2.44	.52	10	2.69	.61	5
Like the excitement	2.81	.41	4	2.59	.55	7	2.61	.55	7
Like the status/ recognition	2.77	.57	5	2.43	.67	11	2.77	.61	4
Want to learn new skills	2.73	.61	6	2.74	.48	5	2.41	.44	13
Want to be physically fit	2.65	.38	7	2.41	.33	12	2.86	.41	2
Like the action	2.54	.44	8	2.30	.44	13	2.55	.38	9
To do something I'm good at	2.51	.47	9	2.90	.41	1	2.64	.46	6
Like being on a team	2.50	.41	10	2.87	.55	2	2.53	.44	10
Like to compete	2.48	.55	11	2.85	.61	3	2.47	.55	12
Like the teamwork	2.44	.61	12	2.80	.60	4	2.51	.61	11
Want to get to a higher level	2.40	.38	13	2.50	.45	9	2.57	.63	8

TABLE II
Means and SD for the Most Important Reasons for Participation in Physical Activity

Reason	United States			Australia			New Zealand		
	Means	SD	Rank	Means	SD	Rank	Means	SD	Rank
To stay in shape	2.92	.63	1	2.77	.39	4	2.75	.64	4
To be physically fit	2.87	.57	2	2.86	.47	2	2.85	.47	2
To have fun	2.83	.44	3	2.90	.63	1	2.89	.44	1
Like to get exercise	2.78	.57	4	2.57	.44	8	2.81	.38	3
To improve my skills	2.71	.63	5	2.50	.66	9	2.70	.57	5
Like the challenge	2.67	.54	6	2.61	.41	7	2.65	.51	6
Want to get to a higher level	2.60	.63	7	2.46	.63	10	2.50	.49	9
Like to do something I'm good at	2.55	.55	8	2.83	.55	3	2.61	.66	7
To be with my friends	2.51	.47	9	2.72	.66	5	2.55	.61	8
To have something to do	2.47	.63	10	2.67	.57	6	2.45	.58	10

The factor analysis performed on the reasons for participation in physical activity questionnaire also produced four interpretable factors account-

TABLE III
Factor Analysis for Reasons for Participation in Competitive Sport

Factor one (Competition) Items	Factor Loading	Factor two (Social Energy) Items	Factor Loading
9. Like to Compete	.470	22. Be With Friends	.404
10. Something Good At	.405	24. Use Equipment/Facilities	.532
11. Excitement	.384	25. Get Out of House	.618
19. Like To Win	.616	29. Parents Want Me To Participate	.587
23. Status/Recognition	.570	28. Release Tension	.581
18. Like The Rewards	.494	26. Like To Travel	.509
14. Go To Higher Level	.435	30. Get Rid of Energy	.620
16. Like The Action	.443	27. Want To Be Popular	.547
21. Feel Important	.452		
Pct. of Variance	33.9	Pct. of Variance	7.1

Factor three (Fitness /Fun) Items	Factor Loading	Factor four (Teamwork) Items	Factor Loading
3. Want to be physically fit	.805	8. Being On Team	.710
4. Improve skills	.718	12. Teamwork	.660
7. Get Exercise	.716	13. Learn New Skills	.430
2. Stay in Shape	.615	20. Like The Coaches	.435
6. Like Challenge	.544		
1. Like To Have Fun	.450	Pct. of Variance	2.0
5. Team Spirit	.428		
Pct. of Variance	2.3		

TABLE IV
Factor Analysis for Reasons for Participation in Fitness

Factor one (Intrinsic) Items	Factor Loading	Factor two (Extrinsic) Items	Factor Loading
4. Improve Skills	.550	18. I Like The Rewards	.490
6. Like Challenge	.578	21. Like To Feel Important	.684
1. Like To Have Fun	.586	23. Want to Gain Status	.834
10. Do Something Good At	.539	24. Like To Use Equipment	.402
11. Like The Excitement	.787	27. I Want To Be Popular	.682
13. Want To Learn New Skills	.658	26. Parents Want Me To Participate	.588
14. Go To Higher Levels	.411		
17. Meet New Friends	.557		
16. Like The Action	.700	Pct. of Variance	7.1
29. Have Something To Do	.407		
Pct. of Variance	34.9		

Factor three (Fitness) Description	Factor Loadings	Factor four (Energy Release)	
Want To Stay In Shape	.810	22. Want To be With My Friends	.570
Want To Be Physically Fit	.840	25. Get Out of the House	.567
I Like To Get Exercise	.500	28. Want to Release Tension	.560
		30. Want To Get Rid of Energy	.461
Pct. of Variance	4.3		
		Pct. of Variance	3.2

ing for approximately 51% of the variance. The individual items comprising the factors are presented in Table IV. Factor 1, accounting for 35% of the variance, was termed intrinsic and related to having fun, liking challenges, and improving skills. Factor 2 was labeled extrinsic, and focused on gaining status, wanting to be popular, and liking the rewards. Factor 3 was termed fitness and focused on staying in shape and being physically fit as reasons for participation in physical activity. Factor 4 was labeled energy release and referred to the release of tension and energy via physical activity as important for their motivation to participate.

BETWEEN GROUP MULTIVARIATE ANALYSES

To test for differences across the three cultures as well as across gender and age, results were analyzed by a 2 x 2 x 3 (Physical Activity Frequency x Gender x Culture) multivariate analysis of variance. To investigate possible differences in participation motivation due to frequency of participation, participants were divided into three groups based on their reported absolute level of participation in exercise/competitive sport. Specifically, participants involved in exercise/competition up to five hours per week were categorized as low in frequency of participation, those participating over five hours but less than nine hours were considered moderate in participation frequency, and those who participated in exercise/competition for more than nine hours per week were categorized as high in frequency of participation. It should be noted that the absolute measure of participation frequency was highly correlated to the two comparative measures (.85 and .82) and thus the absolute measure was employed to determine frequency of participation.

COMPETITIVE SPORT QUESTIONNAIRE

Since the factor structure was different across the questionnaires assessing participation motivation in competitive sport and physical activity, two separate MANOVA's were conducted with the respective factors representing the dependent variables. Regarding participation in competitive sport, results of the MANOVA produced a significant overall gender main effect, Wilks lambda = .9182, $p<.001$. Univariate F tests indicated that all four sport competition factors produced significant gender differences, including competition/extrinsic, F (1,1442) = 7.26, $p<.01$, social/energy, F

(1,1142) = 38.01, $p<.001$, fun/fitness, F (1,1442) = 3.90, $p<.05$, and teamwork, F (1,1442) = 10.50, $p<.001$. Direction of the means indicated that competition/extrinsic and social/energy were significantly more important reasons for participation in competitive sports for males than for females. Conversely fun/fitness and teamwork were significantly more important reasons for participation in sport competition for females than for males.

A significant physical activity frequency multivariate main effect was also found, Wilks lambda =.9283, $p<.001$. Univariate F tests again revealed significant frequency effects for all four sport competition factors including competition/extrinsic, F (2,1442) = 39.20, $p<.001$, social/energy, F (2,1442) = 8.94, $p<.001$, fun/fitness, F (2,1442) = 17.60, $p<.001$, and teamwork, F (2,1442) = 41.42, $p<.001$. Direction of means and Newman Keuls post hoc tests revealed that high frequency exercisers felt that competition/extrinsic, social/energy, fun/fitness, and teamwork were all more important reasons for participation in competitive sport than low frequency exercisers. In addition, moderate frequency exercisers felt that fun/fitness and teamwork were more important reasons for participation in competitive sport than low frequency exercisers.

A significant culture multivariate main effect was also found, Wilks λ = .9788, $p<.001$. Univariate F test tests revealed significant culture effects for three of the four sport competition factors, including competition/extrinsic, F (2,1442) = 17.43, $p<.001$, fun/fitness, F (2,1442) = 3.75, $p<.01$, and teamwork, F (2,1442) = 15.86, $p<.001$. Newman Keuls post hoc tests revealed that participants from the United States felt that fun/fitness, teamwork, and competition/extrinsic were more important reasons for participating in competitive sports than did participants from Australia and New Zealand. In addition, participants from Australia felt that teamwork was a more important reason for participation in competitive sport than did their New Zealand counterparts. Finally, a multivariate gender x country interaction reached significance, Wilks λ = .9720, $p<.001$. Univariate F tests revealed a significant gender x culture interaction only for the social/energy factor, F (2,1442) = 4.80, $p<.01$. Direction of means and Newman Keuls post hoc tests indicated that males from the United States felt that social/energy were more important reasons for participation in competitive sport than did Australian or New Zealand males. However, Australian and U.S. females felt than social/energy were more important reasons for participation in competitive sport than did New Zealand females.

Regarding participation in fitness/exercise, results of the MANOVA produced a significant overall gender main effect, Wilks λ = .9441, $p<.001$. Univariate F tests indicated that three of the four fitness/exercise factors produced significant gender differences, including extrinsic, F (1,1427) = 14.79, $p<.001$, fitness, F (1,1427) = 37.94, $p<.001$, and energy release, F (1,1427) = 13.64, $p<.001$. Direction of the means indicated that extrinsic factors and energy release were significantly more important reasons for participation in fitness/exercise activities for males than for females. Conversely, fitness was a significantly more important reason for participation in fitness/exercise activities for females than for males.

A significant frequency of participation multivariate main effect was also found, Wilks λ .9434, $p<.001$. Univariate F tests indicated that all four of the fitness/exercise factors reached significance including intrinsic, F(2, 1427) = 15.17, $p<.001$, extrinsic, F(2, 1427) = 9.87, $p>.001$, fitness, F(2, 1427) = 24.49, $p<.001$, and energy release, F(2, 1427) = 26.72, $p<.001$. Newman Keuls post hoc tests revealed that high frequency participants felt that intrinsic, extrinsic, fitness, and energy release were more important reasons for participation in fitness/exercise activities than did low frequency participants. In addition, moderate frequency participants felt that fitness and energy release were more important reasons for participation in fitness/exercise activities than did low frequency participants.

In addition, results produced a significant multivariate main effect for culture, Wilks λ = .9286, $p< .001$. Univariate F tests indicated that all four of the fitness/exercise factors reached significance including intrinsic, F(2, 1427) = 8.98, $p<.001$, extrinsic, F (2, 1427) = 24.17, $p>.001$, fitness, F(2, 1427) = 9.01 $p<.001$, and energy release, F(2, 1427) = 16.82, $p<.001$. Newman Keuls post hoc tests revealed that participants from the U.S. and Australia exercised for intrinsic and extrinsic reasons significantly more than did New Zealand youth. In addition, youth from the United States participated significantly more in fitness/exercise activities for fitness and energy release than did Australian and New Zealand youth. Finally, results indicated a significant country x frequency of participation interaction, Wilks λ = .9796, $p<$ .02. Univariate F tests revealed only one significant difference, F(4,1427) = 4.04, $p<.01$ for the fitness factor. Newman Keuls post hoc tests and direction of means revealed that high frequency exercisers in Australia and New Zealand felt that fitness was a more important reason for participation than did moderate or low frequency participants. Conversely, low frequency exercisers in the United States felt that fitness was a more important reason for par-

ticipation in fitness activities than did moderate or high frequency participants.

Discussion

Participation in Competitive Sport

The present investigation had two overall purposes: (a) to compare motives for participation of youth in competitive sports and physical activity, and (b) to examine the relationships of culture, self-reported physical activity levels, and gender to motives for participation for youth in competitive sport and physical activity. Regarding the motives for participation, results revealed two different factor structures for participation in competitive sport and participation in physical activity (although there were some similarities). This finding underscores the notion that these are different activities and thus the motives for participation differed for this youth sample. Although a great deal of research has investigated participation motives in competitive youth sports (Clews & Gross, 1995; Morris, Clayton, Power, & Jin-Song, 1996; Weiss & Chaumeton, 1992 for reviews), little research has focused on participation motivation regarding physical activity. In contrast to previous research which has shown intrinsic reasons such as «learning and improving skills» and «having fun» to be the most important motivational determinants of participation in competitive sport (Gould, Feltz, & Weiss, 1985; Hodge & Zaharopoulos, 1992, 1993; Longhurst & Spink, 1987; Ryckman & Hamel, 1993; Stern, Bradley, Prince, & Stroh, 1990), the most important reasons for the participants in this study were those labeled as «competition» reasons. These accounted for 33.9% of the variance, and related to winning, the status and rewards that sport offered, as well as the enjoyment and excitement inherent in sport competition. Thus, according to the factor analyses, the primary motives for youth participation in sport in the present investigation are both intrinsic and extrinsic in nature along the lines suggested by self-determination theory (Deci & Ryan, 1985). Finally, it is interesting that intrinsic motives were also included in the «Fitness/Fun» factor which only accounted for 2.3% of the variance and extrinsic motives were in evidence in the factor labeled «Social/Energy» which accounted for 7.1% to the variance. In fact, it appears that both intrinsic and extrinsic motives are prominent across all four factors highlighting the close interplay between these different types of motives.

In examining more closely the interplay between intrinsic and extrinsic motives for participation in competitive sport, it is interesting to note that if

the rankings (means) of the most important reasons for participation in competitive sport are highlighted, then it appears that the intrinsic reasons of «to have fun» and «improve my skills» are the two top reasons for participation in competitive sport. This does not, however, necessarily contradict the factor analysis noted above which found that both intrinsic and extrinsic reasons were part of the «competition» factor accounting for the most variance, because the variance accounted for is not necessarily related to the importance of the factor. This is because the variance accounted for refers to the extent to which the factor helps explain the resolution of the factor analysis (i.e., the grouping of items in those factors). If one continues down the rankings of the most important reasons for participation in competitive sport, extrinsic reasons such as to stay in shape and status/recognition are high on the list attesting to the fact that both intrinsic and extrinsic motives appear important to participation in competitive sport.

The somewhat inconsistent results with previous participation motivation research might be explained in terms of the age of the present sample. Specifically, as noted above, the present sample was 13-18 year olds and most of the previous participation motivation research has been conducted using younger athletes (Weiss, 1998). Thus, developmental differences might, in part, account for the differences in participation motivation between the present investigation and previous research. This notion receives some support from the results of Brodkin and Weiss' (1990) study on motives for participation in competitive swimming. Specifically, their study found that social status was rated significantly higher in importance by older children and high school/college age swimmers, in comparison to younger children and older adults who rated 'fun' as a more important motive for participation in competitive swimming. In addition, early research by Alderman and Wood (1976) using adolescent athletes ages 12-18 found that extrinsic factors such as status, prestige, and recognition were important motives for participation in competitive sport.

Since the sample of the present study was between 13-18 year olds, it was fairly similar to Brodkin and Weiss' (1990) and Alderman and Wood's (1976) samples indicating that extrinsic factors (in addition to intrinsic motives) appear to be important to youth competitors in these age ranges. Additional support for the growing importance of extrinsic motives for participation of older youth comes from research by Watken and Youngen (1988) comparing participation motivation in Australian and American youth aged 15-16. Specifically, they found that the factor accounting for the largest amount of variance (success and status/excitement) was extrinsic in nature. As alluded to above, a possible reason for these findings may be associated

with the age group and dominant social environment of the participants at the time of data collection. Specifically, the range in age of the participants was such that all of them were high school students in Australia and New Zealand, and junior high school and high school students in the United States. Although some of the data were collected in group settings outside of the school, the majority of the data collection took place within the school environment, where participation in sport is often encouraged, emphasized, and even compulsory in some schools. Indeed, participation and performance in sport within the school environment is an important source of social status for adolescents, and especially for males (Chase & Dummer, 1992; Fejgin, 1994; Thier & Wright, 1985). In addition, social comparison is especially salient for this age group (Horn, Glenn, & Wentzell, 1993; Horn & Weiss, 1991) and thus looking good to one's peers (e.g., social status, competence), and being with friends appear to be important motives for this age group. Further research, especially longitudinal in nature, is necessary before more definitive conclusions can be put forth regarding youth participation motives for competitive sports.

In addition to the explanations described above, a more basic reason for the inconsistency with previous studies revolves around the type of data analysis employed. Specifically, many of the previous studies merely provided descriptive statistics and rankings of the primary reasons for participation in competitive sport. If this sole approach was taken here, then the results would be generally consistent with previous findings since descriptive findings revealed that intrinsic reasons (e.g., to have fun, to improve my skills, to stay in shape) had the highest mean values. However, since a factor analytic approach was taken in the data analysis, where groups of individual items were loaded onto more general factors, the percent of variance accounted for was concentrated in the «competition» factor which is made up of both extrinsic and intrinsic motives. Thus, although individual factors that emphasize intrinsic motives (e.g., to have fun) are still strong reasons for youth participation in competitive sport, extrinsic factors (as determined by factor analysis) are also important in helping to explain youth participation in competitive sport. Research is needed to further investigate these differences between individual motives and groups of motives based on factor loadings.

Participation in Physical Activity

In contrast to the participation motives for competitive sport, the factor analysis of the motives for participation in physical activity indicated that

these were more clearly defined, and more closely mirrored the results of previous research relating to competitive sport (Gould, Feltz & Weiss, 1985; Hodge & Zaharopoulos, 1992, 1993; Longhurst & Spink, 1987; Ryckman & Hamel, 1993). In addition, although there is not a great deal of research investigating participation motivation of youth (especially 13-18 years of age) regarding physical activity and exercise, the little that has been conducted on youth is generally supported by the results of the present study. For example, several studies have found positive relationships between perceptions of physical competence and physical activity with older youth (Biddle & Goudas, 1996; Dempsey, Kimiecik, & Horn, 1993). These are similar to motives rated highly in the present investigation such as «to stay in shape», «improving skills», and «becoming physically fit», since they all are concerned in some way with developing physical competence. In addition, enjoyment or having fun was consistently rated highly by youths from all three countries and this is consistent with previous research finding enjoyment as a major reason for young people to engage in physical activity (Stucky-Ropp & Di Lorenzo, 1993; Tinsley, Holtgrave, Reise, Erdley, & Cupp, 1995).

In an interesting series of studies, Brustad (1993, 1996), found that children's attraction toward physical activity fit into five distinct categories (i.e., factors). These included (a) «peer acceptance» involving children's popularity with their peers during participation in physical activity, (b) «importance of exercise» relating to children's thoughts about the importance of exercise to physical health, (c) «fun experienced in exercising», (d) «liking of games and sport», and (e) «fun of physical exertion», relating to children's like or dislike of certain exertional aspects of physical activity such as getting out of breath and sweaty. In the present investigation, «intrinsic» motives such as having fun, improving skills, and liking challenges were clearly the most important motives, accounting for 35% of the variance in physical activity motivation, followed by «extrinsic» motives such as gaining status, wanting to be popular, and liking the rewards. «Fitness» and «energy release» were the labels for the final two interpretable factors, which accounted for 7.5% of the variance.

Therefore, although the labels of the factors are somewhat different, there is obviously a good deal of overlap in the actual motives for participation revolving around such things as having fun, staying fit, releasing energy, being with friends, and learning skills, which tend to be both intrinsic and extrinsic in nature. It is important for practitioners to understand the differences in motivation for sport competition versus exercise in youth participants so that intervention programs can be tailored to meet these different motivational orientations. In addition, recent research (Brustad, 1996;

Dempsey, Kimiecik, & Horn, 1993; Kimiecik, Horn, & Shurin, 1996) has underscored the potential importance of parents and other socialization processes as critical to the development of children's attitudes as well as behavior (i.e., participation) regarding physical activity. Therefore, future research should incorporate the parental perspective as well as continuing to explore the underlying theories/models that help explain children's participation in physical activity such as expectancy value (Eccles & Harold, 1991), perceived competence (Harter, 1981) and self-efficacy (Bandura, 1986).

Frequency of Participation Differences

Participants were classified based on their self-reported physical activity levels into low, moderate, and high groups. It should be noted that total participation in both competitive sport and physical activity were combined to produce a frequency of participation index. Previous research in the exercise and health sciences literatures has found that moderate-to- vigorous physical activity levels is a difficult construct to measure in youth populations. Thus, three measures (two comparative and one absolute) were originally employed to assess physical activity levels. The absolute measure was eventually utilized in the analysis to classify participants based on self-reported physical activity levels due to the high correlation among the three measures. Not surprisingly, results revealed that the high physical activity groups (for both competitive sport and physical activity) felt that all four respective factors (i.e., motives) were more important reasons for participation than the low physical activity groups. In essence, youth highly involved in competitive sport and physical activity participate more frequently for a variety of reasons, rather than focusing on one or two main reasons. Therefore, a variety of motivational approaches focusing on both extrinsic and intrinsic motives might be targeted for attempting to increase the participation rates of youth not regularly engaged in sport or physical activity (King, 1994; Smith & Biddle, 1995). Finally, the stages of change model noted earlier (Prochaska, DiClemente & Norcross, 1992) appears particularly relevant here since practitioners need to be aware of the frequency and duration of physical activity participation by youngsters, so that appropriate strategies can be targeted for individuals varying in activity levels, especially those with little or no regular participation. This is especially important in this adolescent population where participation in physical activity drops off as one moves through adolescence.

Cultural Differences

Regarding the role that culture/country plays in participation motivation in competitive sport and physical activity settings, it is interesting to note that the results of the factor analyses revealed little cultural variation. Indeed, the stability of the factors across cultures was such that only the overall factor structure for each questionnaire was used in the multivariate analyses. Thus, the most important reasons for participation in sport and physical activity reported by the participants in the study were generalizable between the Australian, New Zealand, and United States samples. The stability of factors across cultures is consistent with research comparing motivation for participation in physical activity between Australian and American youth aged 15-16 (Watken & Youngen, 1988). Specifically, they found four interpretable factors that were all consistent across the Australian and American youth samples. These factors included success and status/excitement, personal development, affiliation, diversion, and aesthetics. Although the specific factors are somewhat different from those derived in the present investigation (in part due to the fact that one questionnaire was used in the Watken & Youngen study combining sport and physical activity whereas the present investigation employed separate questionnaires to assess physical activity/exercise and competitive sport participation), the key point is that they were similar across cultures.

This finding is important, since the reliance on North American research data regarding this issue has been considered problematic in terms of theoretical development and practical implications (Duda & Allison, 1990). The results of the present investigation, therefore, would seem to indicate that in general terms, and for the three cultures represented, research using predominantly North American data has some application and relevance to Australian and New Zealand populations (at least for the age group of the participants in the study). It would be instructive to conduct further research with cultures that vary in more distinctive ways than the three countries in the present investigation to determine if more significant differences among those cultures would emerge. In addition, research using older and younger participants would be recommended before extending these findings to other age ranges.

Although there was consistency of factor structures across the three countries, this does not eliminate the possibility of cultural variations in participation motives, as suggested by other researchers (Duda & Allison, 1990; Longhurst & Spink, 1987; Watken & Youngen, 1988). Indeed, the amount of variance that was not accounted for in each factor analysis (approximately 50%) may be indicative of such cultural variation (or it simply could be that

there are additional participation motives above and beyond those assessed by the questionnaires in the present investigation). Interestingly, the percent of variance not accounted for by the factor analysis in the Watken and Youngen (1988) study was also approximately 50%. Along these lines, a closer examination of the relative importance of specific motives and groupings of motives that were identified in the present study reveals some variation according to culture, gender, and frequency of participation. In addition, some differences among the countries emerged from the multivariate analyses regarding their motives for participation in sport and physical activity. For example, participants from the United States felt that fun/fitness, teamwork, and competition were more important reasons for participation in competitive sport than their Australian and New Zealand counterparts, whereas participants from the United States and Australia exercised more for extrinsic and intrinsic reasons than did participants from New Zealand. In addition, participants from the United States felt that fitness and energy release were more important motives for participation in physical activity than did their Australian and New Zealand peers. Thus, it would be overly simplistic to state that the three countries were similar or dissimilar regarding their motives for participation in sport and physical activity. Rather, the focus of future research should be on identifying areas of similarity and differences across cultures and countries regarding participation motivation, so interventions can be developed and implemented to enhance participation rates in both sport and physical activity settings.

Gender Differences

Despite the similarity of the overall factor structure for the participation motives for the participants from all three countries, some significant and specific gender differences were evident. With regard to participation motivation for competitive sport, it was found that «competition» motives and «social/energy» motives were more important for males than females, whereas motives relating to «fun/fitness» and «teamwork» were more important for females than males. Similarly, males (especially males from the United States) felt that «extrinsic factors» and «energy release» were more important reasons for participation in exercise/fitness activities than females, whereas females felt that staying in shape was a more important reason for participation than males.

These findings contrast those of Longhurst and Spink (1987), who found that Australian male and female youth responded similarly with regard

to the importance of participation motives. However, the results are consistent with other studies (Gill, Gross, & Huddleston, 1983; Gould, Feltz, & Weiss, 1985; Morris, Clayton, Power, & Jin-Song, 1995, 1996; Ryan, Fredrick, Lepes, Rubio, & Sheldon, 1997) which reported significant gender differences in participation motives. For example, Morris and coworkers (1996) found that males are generally more motivated by competition and status, whereas females are interested more in the health and social/affiliation aspects of sport. This is consistent with the notion that males would rank motives related to competition and receiving extrinsic rewards as more important than motives relating to fun, fitness, and teamwork. Similarly, according to Nicholls' (1984) goal-orientation theory, individuals with a high ego orientation (i.e., males) would be more likely to place a higher value on motives that related to comparisons with others and receiving external rewards than those who were less ego- oriented (i.e., females). Finally, regarding participation in fitness activities, Ryan and coworkers (1997) found that females are more motivated than males by fitness and appearance motives which is consistent with previous research indicating that females tend to be more concerned with body image than males. In summary, it appears that gender differences found in earlier studies regarding participation motivation in competitive sport are still viable and that these differences are fairly stable across the three countries studied in the present investigation.

Summary

The present investigation attempted to fill a gap in the literature regarding motives for participation in competitive sport and physical activity from a cross cultural perspective. Although results revealed similar factor structures across the three different countries, further statistical analyses revealed some interesting differences in both competition and physical activity motives across the countries. In addition, motives for participation generally differed between competitive sport and physical activity indicating that intervention strategies would need to be tailored to each type of activity in order to maximize participation. Furthermore, consistent with previous literature, several gender differences were found including the finding that males tended to be motivated by the competition itself, whereas females favored social/affiliative and fitness reasons for their participation. Additional cross cultural research is necessary to help provide a better understanding of how participation in competitive sport and physical activity is influenced by the particular social milieu in which these activities occur.

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