College Students' Motivation for Physical Activity: Differentiating Men's and Women's Motives for Sport Participation and Exercise

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Abstract. Despite the many clear benefits of an active lifestyle, lack of physical activity is a significant health problem in the college population. A key issue in physical activity research is developing an understanding of motivation. Although physical activity takes many forms, most research designed to enhance motivation for and adherence to physical activity focuses on exercise behavior and ignores sport participation. In this study, the authors compare motivations for sport participation versus exercise among college students. Results indicate that participants were more likely to report intrinsic motives, such as enjoyment and challenge, for engaging in sport, whereas motivations for exercise were more extrinsic and focused on appearance and weight and stress management. The findings suggest that motives for sport participation are more desirable than those for exercise and may facilitate improved adherence to physical activity recommendations.

Key Words: adherence, exercise, motivation, physical activity, sport

Evidence clearly shows that regular physical activity improves physiological and psychological health.[1] Given these benefits, one would expect participation in physical activity to be the norm. However, epidemiological evidence indicates that the level of physical activity declines from high school to college, and activity patterns in college populations are generally insufficient to improve health and fitness. To be specific, only 38% of college students participate in regular vigorous activity, and only 20% participate in regular moderate activity.[2] In contrast, 65% of high school students report regular vigorous activity, and 26% report regular moderate activity.[3] Furthermore, research indicates that almost half of all college students report a decrease in physical activity following graduation.[4] These data indicate the need to study physical activity motivation and behavior so that researchers can develop better programs and interventions to improve the physical activity patterns of college students.

In past studies of physical activity, researchers have primarily focused on exercise, and most interventions currently being implemented to improve physical activity habits in the United States focus almost exclusively on exercise programs.[5] Although the promotion of sport participation at the national level as a means of increased physical activity is common in European countries, similar programs are not available in the United States.[6] This failure to address and promote sport and recreation is surprising because recent physical activity recommendations recognize the therapeutic value of moderate intensity activities for health promotion.[7] This level of intensity is defined physiologically as ranging between 3 and 6 metabolic equivalents (METs), and most sport activities easily meet this criterion.[8] In recent decades, exercise prescription has shifted from structured, intense aerobic exercise to less structured and lifestyle forms of exercise, such as walking and climbing stairs, both of which are common activities for college students and all adults.[7] The next logical step in this evolution is the development and implementation of physical activity interventions that include recreational sport activities.

Unfortunately, research that directly compares the motivations to participate in sport and exercise is sparse; there are only 2 studies to date in which researchers have examined this issue.[9,10] The first study involved surveying a large sample of active individuals who identified their primary physical activity as either "individual sports" or "exercise/fitness activities."[9] The results indicated that sport participants rated enjoyment and competence as their primary motivators, whereas exercise participants most often

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cited body-related motives. A second study by the same authors surveyed motivation for physical activity among a small sample of participants in aerobics and martial arts classes.[10] The results were similar: competence and enjoyment were the primary motives for martial arts, whereas body-related motivations were linked to aerobics. Collectively, these 2 studies suggest that motivation for exercise is potentially different than for sport, with exercise primarily motivated by extrinsic factors and sport by intrinsic factors.

One limitation of these studies is the manner in which the researchers measured motivation. In both studies, they used the Motivation for Physical Activity Measure.[9] This scale is composed of 3 factors (Enjoyment, Competence, and Body-related) and is rather narrow in its coverage of other possible motives for physical activity. Although the motives associated with this scale clearly represent viable reasons for exercise, it excludes many other potential motives. Furthermore, research indicates that motives for participation in physical activity vary greatly and are best described as being highly differentiated.[11] In addition, these studies failed to examine potentially important gender differences in motivation for physical activity.

One measurement tool that may help remedy this limitation is the Exercise Motivation Inventory-2 (EMI-2)[12] The EMI-2 comprises 51 items and 14 factors that represent a wide range of motivations for engaging in physical activity, including stress management, revitalization, enjoyment, challenge, social recognition, affiliation, competition, health pressures, ill-health avoidance, positive health, weight management, appearance, strength and endurance, and nimbleness. Initial efforts to validate the EMI-2 proved successful and indicated its suitability for measurement of motivation in physical activity contexts.[12] The EMI-2 scale allows researchers to differentiate between a variety of motivational factors. In addition, although some subscales are difficult to categorize, a sufficient number can be categorized clearly as intrinsic or extrinsic.

In this study, our primary purpose was to extend the comparison of sport participation and exercise motivation through the use of a highly differentiated scale of physical activity motivation within a college sample. A secondary objective was to investigate the impact of gender on motivation for exercise and sport participation. We believe that results from this project may be useful to individuals who design, implement, and evaluate physical activity programs to improve the health of college student populations.

METHOD

Participants

The participants in this study were enrolled in undergraduate health and kinesiology courses at a university in the southeastern United States. The university from which we drew this sample was a public comprehensive regional institution enrolling approximately 15,000 students. The 7 classes that we surveyed were primarily lower level health content courses (eg, Personal Health, Human Sexuality, Drugs and Society) and enrolled between 30 and 40 students each. Students often take these courses as electives and come from a variety of academic majors.

We sampled a total of 233 students (132 women, 101 men) aged from 18 to 47 years (M = 22.2, SD = 4.8). The sample was 81% Caucasian, 12% African American, 3% Hispanic, 1% Asian American, and 2% other. These demographic characteristics paralleled those of the university (81% Caucasian, 15% African American, and 4% other; 64% women and 36% men; average age = 23.1 years). Prior to data collection, we gave participants a brief description of the study and provided informed consent in accordance with institutional guidelines.

Procedures

We collected data during 1 class meeting of each course. We informed students that participation was voluntary and responses would be confidential. The vast majority of students chose to participate. We instructed them to respond to all items honestly, and the first author was available to answer questions associated with the questionnaire during its administration. Most participants completed the questionnaires in less than 10 minutes. We conducted data analyses using the Statistical Package for Social Sciences (SPSS Inc), Version 7.5.[13]

Measurement of Physical Activity Demographics

Participants provided descriptive information of their physical activity behavior, responding to 4 single-item indicators measuring frequency, duration, intensity, and adherence. Participants responded to each item twice, once related to exercise behavior and once focusing on sport participation. The frequency item included the prompt, "Please indicate how many days per week you participate in sport/exercise," to which participants responded using an 8-point scale ranging from 0 to 7. The duration item included the prompt, "Please indicate the duration of your typical sport/exercise experience," to which participants responded using a 6-point scale ranging from 1 (0-15 minutes) to 6 (90+ minutes). We used the Borg category-ratio scale of perceived exertion[14] for the intensity item, which included the prompt, "Please indicate your typical sport/exercise experience in terms of average level of exertion," followed by an 11-point scale ranging from 0 (no effort) to 10 (absolute maximum effort). The adherence item included the prompt, "Please indicate how long you have been participating in sport/exercise consistently (at least 3 times each week)," followed by a 6-point scale ranging from 1 (0-3 months) to 6 (5+ years).

Measurement of Physical Activity Motivation

Participants completed 2 modified versions of the EMI-2, originally developed by Markland and Ingledew.[12] The EMI-2 is composed of 51 items that comprise 14 subscales. Each subscale reflects a different motivational reason to engage in physical activity. Table 1 includes a list of the individual subscales and sample items. Participants responded to each item on a 5-point scale ranging from 0

TABLE 1. Exercise Motivation Inventory-2 Subscales and Sample Items

Subscale	No. of items	Sample item
Affiliation	4	To spend time with friends
Appearance	4	To look more attractive
Challenge	4	To give me goals to work toward
Competition	4	Because I like trying to win in physical activities
Enjoyment	4	Because I enjoy the feeling of exerting myself
Health pressures	3	Because my doctor advised me to exercise
Ill-health avoidance	3	To prevent health problems
Nimbleness	3	To stay/become more agile
Positive health	3	To have a healthy body
Revitalization	3	Because it makes me feel good
Social recognition	4	To show my worth to others
Strength and endurance	4	To increase my endurance
Stress management	4	Because it helps reduce tension
Weight management	4	To stay slim

(not true for me) to 5 (very true for me). We used 2 versions of the EMI-2 because the original EMI-2 included wording that did not clearly define the activity. Some items used the term "exercise," whereas other items referenced "physical activity." We limited our modifications of the EMI-2 to word substitutions so that 1 version referenced "sport" and the other referenced "exercise."

Prior to participants completing the modified versions of the EMI-2,[12] we provided definitions of sport and exercise that made clear the differences between these forms of physical activity. We specifically defined *physical activity* as a broad category of bodily movement produced by skeletal muscle that results in energy expenditure, including elective forms of activity, such as sport and exercise, and required forms of activity, such as labor.[7] We defined *sport* as physical activity governed by formal or informal rules that involve competition against an opponent or oneself.[15] In contrast, we defined *exercise* as a form of physical activity involving exertion of sufficient intensity, duration, and frequency to achieve or maintain fitness or other athletic objectives.[16] In addition to these definitions, we provided examples of both sport (eg, tennis, basketball, softball, soccer) and exercise (eg, aerobics, cycling, rowing, weight training). Following the definitions and examples, each participant responded to 2 items that served as manipulation checks for the conceptual distinction between sport and exercise. Measurements of internal consistency of each subscale of the modified EMI-2 indicated that the changes that we made to the instrument did not impact factorial validity. We found that alpha values for the sport version (α m = .85; α range = .69-.95) and exercise version (α m = .82; α range = .67-.95) met accepted criteria.

RESULTS

Physical Activity Patterns

Descriptive data of physical activity participation revealed that the participants engaged in exercise (M = 3.58 days per week, SD = 1.46) more frequently than sport (M = 2.14 days per week, SD = 1.95). Additionally, intensity ratings were greater for exercise (M = 6.35, SD = 1.96) when compared with sport (M = 5.72, SD = 3.33). In contrast, ratings of duration and adherence were similar (exercise duration: M = 3.90, SD = 1.22; sport duration: M = 3.88, SD = 1.78; exercise adherence: M = 3.70, SD = 1.83; sport adherence: M = 3.70, SD = 2.27).

Comparisons of Motivation

We compared responses to the modified versions of the EMI-2[12] using a multivariate analysis of variance (MANOVA) with type of physical activity (sport or exercise) and gender as the independent variables, and the 14 subscales as the dependent variables. MANOVA is an extension of analysis of variance (ANOVA) used in research designs with multiple related dependent variables.[17] This analysis provided an examination of the effect of gender and activity type on all motivation subscales at once. The results of this omnibus test revealed a significant main effect for physical activity, Wilks's Lambda = .55, F (14, 409) = 23.58, $p < .001$; a significant main gender effect, Wilks's Lambda = .70, F (14, 409) = 12.57, $p < .001$; and a significant interaction of physical activity type and gender, Wilks's Lambda = .91, F (14, 416) = 2.74, $p < .001$. These results indicated that, when considered together, motivations varied by both gender and activity type.

Because each of the 14 subscales of the EMI-2[12] represent a conceptually different motivation, we followed the MANOVA with an analysis of each subscale, using a factorial ANOVA with physical activity and gender as the independent variables. To control for inflation of experimentwise type I error rate, we adjusted the criterion level for achieving significance using the Bonferroni strategy. That is, we divided the traditional level of significance (.05) by the number of comparisons (14), thus producing $p \leq .003$ as the criterion for statistical significance. We followed sig-

nificant interactions with pairwise comparisons. Table 2 provides mean scores for each subscale, as well as test statistics and effect sizes.

Motivations Differentiated by Type of Physical Activity

ANOVAs revealed significant physical activity effects for 12 of the 14 motivation subscales. Respondents indicated greater motivation to exercise than to participate in sport for appearance, strength and endurance, stress management, weight management, and all 3 of the overtly health-related variables (health pressure, ill-health avoidance, and positive health). As shown in Table 2, we found the largest effect size differences for ill-health avoidance, positive health, and appearance. In contrast, respondents rated affiliation, challenge, competition, enjoyment, and social recognition higher as motivations to participate in sport. Among these, we found the largest effect size differences for affiliation and competition.

TABLE 2. Means, Standard Deviations, and Statistical Results for Exercise Motivation Inventory-2 Subscales

	Exercise		Sport			
Gender	*M*	*SD*	*M*	*SD*	Statistical results	Effect
			Affiliation			
Female	2.38	1.07	3.63	1.18	Activity: $F(1, 227) = 231.65$, $p < .001$	1.19
Male	2.44	0.95	3.81	1.06	Gender: $F(1, 227) = 1.07$, $p > .05$	1.00
Total	2.41	1.02	3.70	1.13	Interaction: $F(1, 227) = 0.46$, $p > .05$	
			Appearance			
Female	3.93	0.81	2.78	1.22	Activity: $F(1, 227) = 144.41$, $p < .001$	–0.91
Male	3.70	0.98	2.99	1.19	Gender: $F(1, 227) = 1.24$, $p > .05$	–0.02
Total	3.83	0.89	2.87	1.21	Interaction: $F(1, 227) = 1.24$, $p < .01$	
			Challenge			
Female	3.01	1.00	3.33	1.25	Activity: $F(1, 224) = 48.46$, $p < .001$	0.38
Male	3.38	0.99	3.93	1.01	Gender: $F(1, 224) = 13.63$, $p < .001$	0.44
Total	3.17	1.01	3.59	1.19	Interaction: $F(1, 224) = 3.42$, $p > .05$	
			Competition			
Female	2.13	1.24	3.32	1.45	Activity: $F(1, 227) = 150.80$, $p < .001$	0.74
Male	3.52	1.32	4.36	0.98	Gender: $F(1, 227) = 67.70$, $p < .001$	0.89
Total	2.73	1.45	3.77	1.37	Interaction: $F(1, 227) = 4.58$, $p > .05$	
			Enjoyment			
Female	3.36	1.05	3.41	1.16	Activity: $F(1, 229) = 21.84$, $p < .001$	0.26
Male	3.47	0.91	4.00	0.92	Gender: $F(1, 229) = 8.29$, $p < .01$	0.33
Total	3.40	0.99	3.67	1.10	Interaction: $F(1, 229) = 14.55$, $p < .001$	
			Health pressure			
Female	2.21	1.13	1.84	1.06	Activity: $F(1, 231) = 23.52$, $p < .001$	–0.27
Male	2.07	0.85	1.93	0.84	Gender: $F(1, 231) = 0.07$, $p > .05$	–0.04
Total	2.15	1.02	1.88	0.97	Interaction: $F(1, 231) = 4.70$, $p < .05$	
			Ill-health avoidance			
Female	3.64	1.00	2.45	1.28	Activity: $F(1, 231) = 193.56$, $p < .001$	–0.91
Male	3.54	1.05	2.69	1.21	Gender: $F(1, 231) = 0.26$, $p > .05$	0.06
Total	3.60	1.02	2.56	1.26	Interaction: $F(1, 231) = 5.24$, $p < .05$	

(table continues)

TABLE 2. *Continued*

Gender	Exercise *M*	Exercise *SD*	Sport *M*	Sport *SD*	Statistical results	Effect
					Nimbleness	
Female	3.38	1.04	2.96	1.28	Activity: $F(1, 226) = 9.12$, $p < .01$	–0.19
Male	3.56	1.00	3.60	1.14	Gender: $F(1, 226) = 9.12$, $p < .01$	–0.37
Total	3.46	1.02	3.24	1.26	Interaction: $F(1, 226) = 12.98$, $p < .001$	
					Positive health	
Female	4.25	0.77	3.16	1.22	Activity: $F(1, 231) = 140.22$, $p < .001$	–0.90
Male	4.22	0.78	3.59	1.12	Gender: $F(1, 231) = 3.30$, $p > .05$	0.18
Total	4.24	0.78	3.35	1.20	Interaction: $F(1, 231) = 9.86$, $p < .01$	
					Revitalization	
Female	3.56	0.92	3.27	1.13	Activity: $F(1, 228) = 0.35$, $p > .05$	0.00
Male	3.44	0.91	3.80	0.74	Gender: $F(1, 228) = 3.72$, $p > .05$	0.20
Total	3.51	0.92	3.51	1.01	Interaction: $F(1, 228) = 25.27$, $p < .001$	
					Social recognition	
Female	2.14	0.92	2.79	1.29	Activity: $F(1, 231) = 88.95$, $p < .001$	0.57
Male	2.84	1.17	3.57	1.21	Gender: $F(1, 231) = 30.23$, $p < .001$	0.60
Total	2.45	1.09	3.13	1.31	Interaction: $F(1, 231) = .30$, $p > .05$	
					Strength and endurance	
Female	3.82	0.96	3.24	1.26	Activity: $F(1, 225) = 66.74$, $p < .001$	–0.56
Male	4.41	0.66	3.81	1.08	Gender: $F(1, 225) = 24.68$, $p < .001$	0.57
Total	4.07	0.89	3.48	1.22	Interaction: $F(1, 225) = 0.02$, $p > .05$	
					Stress management	
Female	3.50	1.08	2.98	1.24	Activity: $F(1, 228) = 13.72$, $p < .001$	–0.25
Male	3.28	1.15	3.31	1.11	Gender: $F(1, 228) = 0.19$, $p > .05$	–0.05
Total	3.41	1.11	3.12	1.19	Interaction: $F(1, 228) = 16.66$, $p < .001$	
					Weight management	
Female	4.14	0.94	3.02	1.32	Activity: $F(1, 228) = 113.74$, $p < .001$	–0.73
Male	3.30	1.15	2.76	1.18	Gender: $F(1, 228) = 17.60$, $p < .001$	–0.47
Total	3.78	1.12	2.91	1.26	Interaction: $F(1, 228) = 13.98$, $p < .001$	

Note. Effect size values for activity represent sport and exercise differences; positive effect sizes indicate higher values for sport, negative effect sizes reflect higher values for exercise. Effect size values for gender represent female and male differences; positive effect sizes indicate higher values for males, negative effect sizes reflect higher values for females.

Gender Differences in Physical Activity Motivation

Analyses also revealed significant gender effects for 5 motivational variables: challenge, competition, social recognition, strength and endurance, and weight management. Men reported higher levels of motivation than did women for challenge, competition, social recognition, and strength and endurance, with the largest effect size difference for competition. Women rated 1 motive, weight management, higher than did men.

Motivations Varying by Both Type of Activity and Gender

In addition to these main effects, we found a significant activity by gender interaction for 6 variables: enjoyment, positive health, stress management, nimbleness, revitaliza-

tion, and weight management. Follow-up comparisons of enjoyment scores indicated that men rated this motive as significantly more important for sport participation than for exercise, whereas women's ratings were similar across the 2 types of activities. We obtained similar results from follow-up comparisons of revitalization scores, finding that the motive of enjoyment was most important for men's participation in sport.

Follow-up analysis of stress management scores indicated men's motivational ratings were similar for sport participation and exercise. In contrast, women rated it as a significantly more important motivation for exercise than for sport participation. We observed a similar pattern of scores for nimbleness, with women considering this a more important motive for exercise.

For the motive of positive health, both men and women associated it more with exercise than with sport participation. However, men rated it relatively similar for sport participation and exercise, whereas women indicated that it was much higher for exercise.

The final variable with a significant interaction was weight management. Both men and women considered weight management more important for exercise than for sport participation; however, women's ratings of the importance of weight management for exercise were higher than were men's.

Rankings of Motivations

In addition to examining the data for these statistical differences, we also transformed numerical means into rankings (see Table 3). This allowed for an additional comparison of the various motives. Certain motives were considered more important than others. Overall, respondents were more motivated to engage in physical activity as a means for enjoyment and to achieve positive health benefits than to achieve social recognition from peers. However, despite engaging in physical activity for health benefits, participants reported relatively low levels of perceived pressure to be healthy. In addition, several motives were clearly more highly linked to exercise (eg, appearance, health benefits), whereas others were linked more strongly to sport participation (eg, competition, enjoyment).

COMMENT

In this study, we investigated motivational differences between sport participation and exercise, and gender differences for physical activity motivation. We designed the study to assess motivation to exercise and participate in sport among a sample of active college students. In a classroom environment, we administered separate sport and exercise versions of a valid inventory of physical activity motivation to students enrolled in courses with health and kinesiology content.

Our analyses revealed that participants' motivations to engage in sport differed from motivations to engage in exercise. The highest rated motives for sport participation were competition, affiliation, enjoyment, and challenge, whereas the highest rated health- and appearance-related motives were exercise behaviors. In addition, all of the overtly health-related motives were more highly linked to exercise behaviors than sport participation. These findings may indicate that sport participation is more closely linked to intrinsic motives, whereas exercise is associated with primarily extrinsic motives. This is largely consistent with the findings of limited prior research in this area that enjoyment is more highly related to sport participation and that body-related motivations, such as appearance, weight management, and strength and endurance, are more highly related

TABLE 3. Ranking of Exercise Motivation Inventory-2 Subscale Motives for Exercise and Sport Participation, by Gender

	Exercise			Sport participation		
Subscale	Men	Women	Total	Men	Women	Total
Affiliation	13	11	13	4	1	2
Appearance	3	3	3	11	12	12
Challenge	9	10	10	3	3	4
Competition	6	13	11	1	4	1
Enjoyment	7	9	9	2	2	3
Health pressures	14	12	14	14	14	14
Ill-health avoidance	5	5	5	13	13	13
Nimbleness	4	8	7	7	10	8
Positive health	2	1	1	8	7	7
Revitalization	8	6	6	6	5	5
Social recognition	12	14	12	9	11	9
Strength and endurance	1	4	2	4	6	6
Stress management	11	7	8	10	9	10
Weight management	10	2	4	12	8	11

Note. Range = 1 (*most important*) to 14 (*least important*).

to exercise participation.[9,10] In addition, prior research indicated that competence motives were more highly associated with sport participation.[9,10] Our finding that sport was rated higher on challenge and competition than was exercise also appears to parallel earlier research findings.[9]

Gender-based analyses revealed some of the most interesting findings in this study. We found that, although the motive of weight management is more strongly linked to exercise than sport participation, this difference was particularly true for women. Our data suggest that college women have greater concerns regarding their body weight than do men. Women's greater concern for weight status seems appropriate on the surface, given that younger women on average are more likely to be overweight than their male peers.[1] However, this may well be reflective of a deeper, long-standing concern that has an origin in childhood. Young girls may diet more often and have less body satisfaction than young boys, perhaps in response to contemporary societal standards of female body shape.[18,19]

Other findings related to gender indicated that men are more highly motivated by performance and ego-related factors, such as challenge, strength and endurance, competition, and social recognition, when compared with women, regardless of activity type. Such differences are consistent with the finding of prior research that men are more motivated by activity that includes some performance factor.[20] Furthermore, our findings seem to support the notion that exercise participants, and perhaps men in particular, are inclined to view exercise and fitness activities as an opportunity to pursue and achieve ego-related goal outcomes.[21] We also determined that enjoyment has important gender differences when viewed across type of activity. In this study, women viewed enjoyment similarly with respect to exercise and sport participation, whereas men tended to see enjoyment as more of a motivator for sport participation than for exercise. Again, this finding may well be related to the men's tendency to seek out types of activity that provide for opportunities to demonstrate mastery and competence.

When viewed in light of self-determination theory,[22] our findings in this study have great relevance for discussions of physical activity adherence. The basic premise of the self-determination theoretical model is that humans inherently possess psychological needs for autonomy, competence, and social relatedness. These needs facilitate the adoption of behaviors and activities that provide for their fulfillment. One of the major tenets of this theory concerns the distinction of intrinsic and extrinsic motives. Intrinsic motivation is thought to be the primary source of energy for human behavior and its presence facilitates behavioral maintenance and adherence. In contrast, motives that are based on extrinsic factors and rewards create a condition that may or may not facilitate adherence. In such cases, the nature and delivery of the extrinsic reward powerfully impacts the decision to continue in a given behavior. With regard to our data, it is clear that motivation for sport participation is linked more closely to intrinsic reasons (ie, challenge, social recognition, and enjoyment), whereas motivation for exercise is tied to more extrinsic reasons (ie, appearance, health pressures, stress management, and social recognition). Although Markland and Hardy[12] indicate that many of the subscales of the EMI-2 can readily be distinguished as either intrinsic or extrinsic in nature, they also caution that some subscales are decidedly difficult to categorize in this way. Regardless, the findings of this project, interpreted through self-determination theory, suggest that the motives associated with sport participation may more likely lead to long-term adherence than the motives associated with exercise, and that some of the difficulties in long-term maintenance of exercise programs are a result of the extrinsic goal motivations underlying exercise.

Limitations

The ability to generalize the current findings is limited by the sample of mostly young, Caucasian, and educated students. In addition, we recruited participants from courses with health and kinesiology content, and it is possible that students who enroll in these courses do not adequately reflect the entire student population. Students who enroll in such classes, whether they are required or elective, may have a greater interest in health and physical activity than students who pursue other coursework. As a result, it is unknown to what extent our findings represent the overall college student population. Also, our understanding of physical activity motivation would have been improved if we had collected the data over time. These design issues suggest that conclusions drawn from the present study should be viewed as preliminary. However, we suggest the measurement of both sport participation and exercise motives within the same sample using a highly differentiated measure of physical activity motivation as worthy methodological considerations for future research in this area. This type of research design allows for a more valid comparison of motives because it eliminates the self-selection bias common in designs that assess only sport or exercise behavior.

Implications

One of the underlying foundations of this article is that behavioral maintenance and adherence is most likely to occur when motivations are intrinsic rather than extrinsic in nature. Thus, our findings in this study suggest that sport participation is linked to more desirable motivational strategies for a physically active lifestyle than is exercise. Individuals appear to be more specifically inclined to participate in sport for its own sake, rather than for some desired outcome. This does not appear to be the case for exercise, in which motivations tend to center on desired outcomes. In fact, it may be that many health promotion efforts designed to increase exercise behavior may actually be impairing motivation and adherence by creating perceived societal pressure and health fears that are related to less desirable forms of extrinsic motivation. More appropriate and effective health promotion efforts may include the promotion of sport activities that are less likely to include the types of motivations that impair participation and adherence. Clear-

ly, more research will need to be conducted to address these important motivation and adherence issues.

Additional implications of this research relate to current recommendations by the American College of Sports Medicine (ACSM)[23] regarding the therapeutic value of physical activity programs that do not map onto traditional guidelines. The ACSM is now recommending specifically that people use lifestyle forms of physical activity, such as hiking, walking, and gardening, as means of reaching many health and fitness goals. While this issue is not addressed in the current study, it is likely that recreational forms of physical activity are enjoyable in and of themselves and, as a result, are linked more closely to desirable motivational strategies. This may explain the enhanced adherence rates to active leisure activities in comparison with aerobic or strength-based interventions.[5] Thus, our findings would support further examination of the motivational factors associated with various activity initiatives.

NOTE

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