

EXPLORING MOTIVATION FOR LEISURE-BASED PHYSICAL ACTIVITY: A CASE STUDY OF COLLEGE STUDENTS

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Abstract.—The benefits of physical activity have been well documented in recent years. Physical activity may decrease the risk of cardiovascular disease, assist in weight management, improve personal mood, and promote physiological health. In light of this increased activity, it is important to understand the reasons for it. This exploratory study attempted to identify college students' motivations for leisure-based physical activity. To gain this information, interviews were utilized to learn more about the motivations for physical activity. Fifteen students finished the interviews in this study and results revealed five main motivations after open coding procedures: body image, self-efficacy, social needs, enjoyment, and health. These findings responded to self-efficacy theory and value-expectancy theory, where students were motivated for physical activities by their belief in their own ability and in positive outcomes. This study may be the first step in future motivation studies in leisure-based physical activity.

1.0 INTRODUCTION

In the past, researchers and scientists conducted either population-based or experimental studies to explore the possible health benefits of physical activity (Blair et al. 1996, Carpenter et al. 1999, Gauvin & Spence 1996, Manson et al. 1999). The findings confirmed that the prevalent physical activity benefits included reduced risk of cardiovascular diseases and colon-rectal cancers, strong bones, weight management, energy increase, less anxiety, and sense of well-being. The U.S. Surgeon General (1996) also advocated a physically active lifestyle and stated the consequences of a sedentary way of life. However, about 25 percent of American adults still report not participating in any physical activity during their leisure time despite the well documented benefits of physical activity (Sherwood & Jeffery 2000). Motivating

people to be physically active and promoting a healthy lifestyle are important issues for officials and researchers.

Based on previous study findings, healthy benefits are well documented, but little attention has been paid to participants' motivations for engaging in certain physical activities during their leisure time. This study sought to explore college students' motivations for engaging in leisure-based physical activities. As Sherwood and Jeffery (2000) suggested, physical activity is a "complex and dynamic process determined by various factors" (p. 21). From a life-span perspective, college students are in a young adult stage; in their physical and psychological development they attain maturity status (Polan & Taylor 1998). They leave their parents for college life and become autonomous when they face the world. At the same time, they are in healthy situations and peak condition due to their physiology and personal perception perspectives. They also have some health problem associated with their risky behaviors, including tobacco or alcohol consumption, accidents, and unhealthy diet (Fromme et al. 1997, Merluzzi & Narin 1999, USDHHS 1990). Most importantly, their current lifestyle will influence or predict their behaviors in the future (Merluzzi & Narin 1999), which means that they will have a physically active lifestyle if they participate in some physical activities or exercises at the young adult stage. Unfortunately, some studies suggest that their physical activity participation level declines from high school to college—91 percent for moderate-vigorous activity participation in high school vs. 58 percent among those who are not active (Douglas et al. 1997, Grunbaum et al. 2002). Therefore, this study sought to explore exercise and physical activity motivations of college students. Findings will help university and government officials promote a physically active lifestyle for students.

2.0 METHOD

2.1 Participants

The participants recruited for this study were 15 full-time students—four males and 11 females. Their age ranged from 18 to 29, and four of them were non-caucasians.

Two out of the 15 were graduate students. Based on the demographic data, most participants were female Caucasian. As for their physical activity features, most declared running or jogging as their favorite activity, followed by exercise at a gym, and other various activities such as ice hockey, basketball, volleyball and swimming. All participants identified their physical activity as being only for fitness rather than for sport or competitive purposes. As for exercise frequency, occasions ranged from three to seven times per week. In sum, the study participants were mostly female Caucasians, and the most common exercise was jogging/running about five times per week.

2.2 Methodology

This study utilized the one-on-one interview to explore and learn about all possible motivations for participants' physical activity. The interview method is the most basic and reliable data collection method both for qualitative and quantitative research inquiry (Creswell 1998).

In addition, the interview offers the researcher the opportunity to obtain rich and in-depth understanding of participants' experience (Fontana & Frey 2000). To be specific, this study employed the semi-structured interview to understand the possible motivations for college students' physical activity. The interview questions were pre-established to standardize the interview procedures for all participants. However, doing so might limit their responses and reduce variation in answers. To improve upon the structured interview and incorporate suggestions from previous researchers (Fontana 2001, Fontana & Frey 2000), the semi-structured interview was employed. Relevant questions were added at any time to capture the participants' true meanings or experiences.

2.3 Procedures and Instruments

All potential participants received the study information via bulletin boards around campus and were provided with the study details if they showed interest in joining the study. They engaged in interviews voluntarily to help the investigator construct the meaning of the motivation for their physical activity. As for the instruments, two questions were the main focus of this interview: the motivation for leisure-based physical activity and the relationship between their motivations and behaviors, i.e., participation in physical activity. All relevant questions

about activity features and family/peer influence were added to capture their motivation meaning.

During the conversation, the investigator established a rapport with participants by standing at the respondent's side, thereby reducing the distance between the investigator and participants. All conversations were audio-taped for transcription and data analysis. After the tapes were transcribed, the responses were categorized or coded into the same group if they had the similar meanings. This process reduced the database to a small set of categories. With the use of this procedure, the process might be characterized as data analysis in grounded theory, open coding (Creswell 1998, Lincoln & Guba 1985, Strauss & Corbin 1990). The line-by-line coding strategies were used in this data analysis to enable the investigator to define the participants' answers and re-think the meaning of the definitions (Charmaz 2001).

3.0 RESULTS

All conversations were transcribed into text format for the data analysis. After following open coding procedures, five categories were dimensionalized in this study: healthy benefit, body image, self-efficacy, social needs, and enjoyment. The data showed that all participants had more than one motivation for engaging in physical activity or exercise. The various motivations were examined in this study.

3.1 Healthy Benefit Motivation

In this category, the participants decided to engage in physical activity for the health benefits or effects of physical activity. For health benefits, two different categories were identified: physiological and psychological. The physiological benefits found in this part included pain relief, energy restoration, cardiovascular strengthening, illness prevention, and weight control. Psychological aspects included stress-relief, sense of freshness, great endurance, feeling stronger, and strengthening self-confidence. "I do exercise because it will be good for my heart." "I can control my weight when I run." "In general, I go swimming because it gives me a sense of freshness, I can think about myself, my future, or anything I want, you know, just like contemplation." "I play basketball and do exercise in gym because they give me a chance to relieve my stress, I

have lots of school work to do and always feel good after exercise.” “I think de-stress, I am a student and always feel exhausted and weight-lifting really gives me a chance to relieve myself.” “I have back-pain and exercise in gym could help me control my pain and this is the main reason for my physical activity.” “I walk because it is good for my cardiovascular system.” “I do running since I am in high school because my parents tell me it is good for my body and I can feel it now. I want to have a healthy body and I do that.” “I always have exercised in gym because it can help me prevent from some illness.” “I try to stretch my muscle and organs and physical activity could help me to do that.” “I play basketball because I can feel that I can escape from reality and gives me a totally new feeling after that.”

3.2 Body Image Motivation

The tremendous response indicated that the main motivation for physical activity was body image or shape. Most participants, especially females, stated that physical activity could help to maintain a good body shape or image. “I like running or cross-country marathon because it could help my body consume lots of calories to keep my body good shape.” “Body image is always very important for me and exercise or weight-lifting can help me have slim shape.” “I think body image, like looking slim, is very important for me and I always like walking or jogging to keep good shape.” “Better looking body keeps me doing exercise in gym everyday.” “I do running because I want to control my weight and it helps me keep good shape, too.” “Exercise in gym could help me maintain desired body shape.” “You know, keeping good shape is always my concern, like for making girl friend, so, I work very hard in gym to have a slim look.” “I play hockey, I mean pick-up game, can keep my good physical shape.” “I like running because it keeps me good shape.”

3.3 Self-efficacy Motivation

Self-efficacy motivation refers to people’s belief that they may achieve a desired performance level for specific tasks based on their self-judgment. Many responded that they feel self-efficacy when they engage in exercise or physical activity. “I want that feeling that I can conduct everything by myself, like activity levels or types.” “I feel I can do something by myself when I do physical activity like running.” “I can pick up the activity I like

and I have great self-confidence when I am doing some exercise.” “I enjoy competing with myself and exercise or physical activities give me chance to do that.” “I feel more confident and happy because I can keep everything in my control when I playing ice hockey.” “I can try my different limit in exercise in gym and I like this feeling.” “I like running because I like a sense of accomplishment and a sense that I can handle everything.” “I feel that I can increase my skills in soccer and I can do that by myself.”

3.4 Social Needs Motivation

Based on the responses, some participants liked to engage in physical activity with friends rather than working out alone. This preference was highly correlated with the activity features. Some activities, such as basketball or volleyball, represent a suitable occasion for participants to meet new people. Others preferred solitary activities such as running or walking alone. Interestingly, males tended to see social needs as part of their motivation to engage in physical activity, but females did not. “I can meet new people and talk with them.” “Making new friends keeps me coming to gym everyday.” “I like running alone but it will be nice to run with friends, socializing is my another motivation for running.” “I like playing basketball during my leisure time because I can make lots of friends there.” “I play volleyball because I can play with lots of different people and I like that, I mean, not beach volleyball.” “One of my motivations for tennis playing is to play with different people and talk with them after.” “Meeting other participants, you know, it is my reason for playing soccer, because we need more than ten people for a pick-up game.” “I do weight-lifting in gym because I can talk with different people over there.”

3.5 Enjoyment Motivation

Most respondents in this study found that pleasure or fun is their motivation for physical activity. Enjoyment keeps them engaged in doing exercise, and most recognize that it is an important factor in maintaining their physical activity regimen. “I got lots of fun when I run and I will keep going on.” “I play hockey because it has lots of fun there.” “I swim almost everyday and I got happier mode after that.” “Have fun, in gym.” “I feel happier in general after exercise in gym.” “It is fun, the posture is beautiful and the music is full of power.” “I feel

Table 1.—A comparison of different findings about physical activity motivation

Name of Study	Physical Activity Motivations
Yu	Health, Body Image, Self-efficacy, Social Needs, Enjoyment
Federick & Ryan (1993), Nise et al. (1998)	Health, Appearance, Social Interaction, Stress relief, Enjoyment, Challenge, Skill Development, Achievement, Personal Satisfaction.
Ashford et al. (1993)	Health, Fitness, Skill development, Social interaction and Relaxation.
Markland & Hardy (1993)	Ill-health Avoidance, Appearance, Enjoyment, Social Recognition, Stress Management, Weight Management, Re-creation, Personal Development, Affiliation, Competition, Fitness and Health Pressures.

good after exercise.” “It is lots of fun to do that.” “My motivation for physical activity wants to feel happy.” “I love running because it has lots fun to go through that.” “I feel pleasure in doing exercise in gym.”

4.0 DISCUSSION

This study focused on what motivates college students to engage in some physical activities. Its intention was to propose a theory to explain the relation between motivation and the intended behavior—participation in physical activity. Motivation serves to initiate, direct, and maintain human behaviors (McClelland 1985), and physical activity may be defined as movement of body and energy expenditure (Caspersen et al. 1985). In this study, the participants endorsed five motivations for selecting, beginning, and maintaining physical activities: health benefit, body image, self-efficacy, social interaction, and enjoyment. Study findings were consistent with those from other relevant research on physical activity motivation (see Table 1). A comparison of this study’s findings with those from prior studies revealed that the most common reason for participation is health, followed by body image, social interaction/needs, and enjoyment. This comparison also suggested that physical activity motivations are outcome-oriented.

4.1 Health Motivation

In this study, most students noted that physical activity could result in better healthy effects on their cardiovascular system. Leisure-time physical activity could reduce the risk of coronary heart disease and decrease mortality rates, as Paffenbarger et al. (1994) suggested in a study of Harvard alumni. Blair et al. (1992) stated that physical or other fitness activity has the most preventive effects on heart disease, leading to

decreased mortality. They found other evidence which showed similarly healthy effects on hypertension, obesity, colon cancer, diabetes, and bone health. Hypertension has a high correlation with heart disease; decreasing systolic blood pressure via physical activity could reduce coronary heart disease risk (Bouchard & Despres 1995, Fagard & Tipton 1994). Based on participants’ responses, physical activity is an effective way to control weight and prevent obesity, which is congruent with current research findings (Fagard & Tipton 1995, Williamson et al. 1993). As for other possible health-related benefits relating to diabetes, Helmrick et al. (1991) suggested after reviewing results from a 15-year study that leisure-based physical activity could prevent or reduce the prevalence of diabetes, especially for type II (non-insulin dependent) patients. Lee (1995) and Yang et al. (2003) conducted careful research on physical activity and cancer and stated that physical activity might reduce the risk of breast and colon cancer. However, more accurate measurements of the preventive effects from physical activity were needed.

In addition, with regard to psychological effects, most respondents also stated that physical activity could help them relieve stress from school work. They felt stressed or burned out and could not escape from the “pressure-cooker.” Physical activity could help them to calm down and relieve them of anxious, nervous, and upset feelings. As McAuley (1994) suggested, there are negative relations between exercise and anxiety, depression, and stress. Students who were stressed preferred to play a very hard game, exercise very vigorously at a gym, or engage in long-distance running to help them handle their stressful emotions. Their methods for reducing their stress or anxiety were consistent with research findings.

Scully et al. (1998) suggested that physical activity, such as walking, jogging, or weight training, decreases depression, anxiety, and stress levels.

4.2 Body Image Motivation

Drewnowski and Yee (1987) conducted a body image study and found that both male and female college students were not satisfied with their body image. In this study, females were more likely to be motivated to achieve a good body shape than their male counterparts. They indicated that keeping their body slim would help them to meet others' expectations, responding to the influence of dominant popular cultural norms or ideals, as Markus (1977) suggested. Most were influenced by the printed or electronic media's messages about maintaining a thin body image. Levine et al. (1994) and Gonzalez-Lavin and Smolak (1995) found that adolescent girls endorsed model images in magazines or on television as their ideal body shape, leading possibly to eating disorders to meet unrealistic ideals. The pictures in magazines and on television made female students anxious to keep their body slim, as Koloder (1997) indicated. For college students, body image or shape also was aligned with their status in social events because it could add to their attractiveness to the opposite sex. Physical activity serves to help them have a slim or thin body shape and reduces their anxiety in social events.

4.3 Self-efficacy Motivation

Bandura (1986) stated that self-efficacy is "people's judgments of their capabilities to organize and execute course of action required to attain designated type of performance" (p. 391). In this study, self-efficacy was found in participants' motivation to engage in physical activity. They believed that they were able to participate in physical activity and were confident about their ability. At the same time, all respondents stated that they enjoyed the sense of self-control during their physical activity. The self-competence also helped them to maintain their activity level and increase adherence to a routine in their physical activities. Some liked to challenge their own physical limits and believed that they could successfully exceed their limit. Sternfeld et al. (1999) found positive relationships between physical

level and self-efficacy level. Sherwood and Jeffery (2000) confirmed that self-efficacy is an important indicator of physical activity, based on their reviews of current physical activity studies.

4.4 Social Needs Motivation

Some participants indicated that the motivation to engage in physical activity is to meet new people and so they liked interacting with people when they ran, or played basketball or volleyball. Most respondents stated that physical activity offered a good occasion for a social event. They were very willing to spend time with friends and talk with them during their physical activity, thereby gaining support from friends or peers. Brown (1985) found that social support from friends helped to increase adherence to physical activity. Findings from their study of sedentary adults led Booth et al. (1997) to suggest that the lack of social support was a barrier to physical activity. Sallis et al. (1999) studied female college students and found that social support increased physical activity levels. The findings suggested that social support is highly associated with physical activity adherence and maintenance. Indeed, social needs or interaction appears to be an important predictor of physical activity.

4.5 Enjoyment Motivation

Fun, pleasure, or enjoyment would be predictors of participation in physical activity, as stated by study participants. The feeling of fun or pleasure is similar to optimal status in the 'flow' experience, where there is a perceived balance between skills and challenges (Csikszentmihalyi 1975) and it is "the best moment of life" (Csikszentmihalyi 1990, p. 3). As found in earlier self-efficacy motivations, the respondents liked to challenge themselves with adequate skills during physical activity; the byproduct, "flow," subsequently appeared in their perceptions. Enjoyment came with the "flow" experience and motivated people to engage in physical activity. The respondents simply indicated that they participated in some physical activity for fun. However, some studies found that sports participants are more likely to be motivated by enjoyment while appearance or body image are the main motivations for most physical activity participants (Frederick & Ryan 1993, Kilpatrick et al. 2005, Ryan et al. 1997).

4.6 Self-efficacy and Value-expectancy Theory

The expectancy theory states that motivation force has three different parts or processes: expectancy, instrumentality, and valence (Lawler 1973). People engage in specific behaviors based on the values of the expected outcomes, their belief in the capabilities of the desired performance, and perceived probability of their expected outcomes. The participants' outcome-oriented motivation for physical activity in this study indicated that they had foreseen or perceived positive benefits from physical activity. They believed that they had the ability to do it and that their efforts could lead to positive outcomes. Self-efficacy could explain their belief in their ability, their efforts toward the activity, and the degree of persistence related to an activity (Sherwood & Jeffery 2000), whereas the value-expectancy approach could lead to holistic views of the effects of capability, belief, performance confidence, and value formation on desired outcomes. Findings from Jette et al. (1998) and Resnick et al. (2000) also confirmed and revealed that outcome expectations predisposition is better than self-efficacy as a physical activity indicator. Part of self-efficacy also refers to self-control or autonomy concepts, which are one of three determinants of all human motivation, as Deci and Ryan (1985) stated. Participants indicated that they made the choice on their own; desired and anticipated outcomes made them continue their participation in a specific activity.

5.0 CONCLUSION AND IMPLICATIONS

This purpose of this study was to explore college students' possible motivations for engaging in physical activity. Five motivations were identified in this study: health benefit, body image, self-efficacy, social interaction, and enjoyment. These motivations might not be the same as those found in other studies on motivations to engage in physical activity. Biddle (1995) suggested that various motivations associated with physical activity were recognized in different studies, and most were not entirely identical. However, self-efficacy is the most prevalent indicator of motivation to engage in physical activity as based on Sherwood and Jeffery's review (2000). People believe that they are able to perform some physical activities, but those beliefs are influenced by anticipated outcomes and values, such as health and other positive outcomes (Marquez & McAuley 2006). Value-expectancy

theory (Lawler 1973) was sufficient to explain people's outcome-oriented behaviors in this study because people were aware of valuable outcomes and believed that they were able to obtain expected ones.

However, this study did not identify some factors that influence motivation, such as gender and activity features. As indicated in many studies, gender is an important indicator of different motivations for males and females. Different activity features might have different effects on motivation, but they were not discussed in this study. Future studies should emphasize how other predictors influence motivation and how they affect motivations. This study served as the first step toward understanding the motivation to engage in physical activity in a specific program and indicated that both value-expectancy and self-efficacy theory could explain the participants' motivations to engage in physical activity. Study findings will help universities develop better interventions to promote physical activity for inactive and sedentary people and increase the physical and psychological benefits of physical activity for participants.

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