

Investigating Participation Motives of Saudi University Students towards Physical Activity at Different Educational Levels

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Abstract

Background/Objectives: Motivation is a complex phenomenon that driven from the 'inside' by some needs, impulses, desires, wishes, or motives, and directed towards achieving a goal that from the outside functions as a stimulus for behavior. The objective of the study was to investigate participation motives of Saudi university students towards physical activity at different educational levels. **Method:** The participants were undergraduate students ($n = 1039$), mean age 20.60 ± 1.679 yrs. On the basis of educational level five categories were formed as orientation ($n = 352$), freshmen ($n = 293$), sophomore ($n = 191$), junior ($n = 93$), and senior ($n = 110$). Motivation for Physical Activities Measure-Revised was administered to measure participation motives. Rank order applied for the most and least important reasons for participation towards physical activity and sports. **Findings:** University students' rated the most important reasons for participation towards physical activity and sports as fitness and then appearance factors, which are explained by extrinsic motivation. The least important reason for participation motivation reported was social factors. It was observed that students always take time to find friends. It might be due to this choice of friendship that students consider as the main reason to participate in physical activity Ryckman and Hamel. ANOVA showed significant differences among educational levels on competence factor $3.419, p = .009$; social factor $9.746, p = .001$. Students tend to improve their competence, enjoyment or interest through physical activity and sports to optimize their physical well-being with progression of educational levels. **Application/Improvement:** To impart the knowledge of fitness and health benefits, mentors and counselors should help and motivate students to take up the physical activities seriously. The infrastructural facilities for physical activities are not optimizing it to their advantage. To optimize the social experience of students there is a need for strategies to reduce the gap in socialization among students.

Keywords: Educational Level, Fitness, Motivation, Participation, Physical Activity

1. Introduction

Motivation is understood as an impetus for exercising and it is a complex phenomenon that is unacceptable to simply include under a single model¹. Sports are considered one specific form of physical activity that contributes to children's and adolescents' overall engagement in moderate to vigorous physical activity². When compared to other forms of physical activities, sports participation

typically involves physical exertion and skill development, and the competition of individuals or teams against one another³. Participation in sports and physical activities has been proved to have great positive effect on human body, but not all positive effects are strong enough to make people participate in the sports. It is a common belief that motivation plays a major role in participation in physical activity⁴.

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Weiss and Petlickhoff⁵ noted that key reason to participate in physical activities as fitness, competence, affiliation and fun. Some studies demonstrated that people have different achievement goals with respect to sports participation and it is logical to recommend that their achievement is a fundamental of enjoyment^{6,7}.

Motives are very important components of physical activity participation. Physical activity has both preventive and curative effects^{8,9}. According to Sport and Health¹⁰ in 2005 more than thirty five million people succumbed to chronic diseases, which are preventable through participation in physical activities. Many studies have indicated that young people are not physically active as they need to be to enjoy the health benefits of physical activity¹¹⁻¹⁴.

The motivational theories propose a mechanistic nature of viewing man as passive and driven by psychological causes. But the cognitive theories viewing, man as actively processing and interpreting the achievement perspective and initiating action¹⁵. Active persons attributed greater importance to mastery, physical fitness, psychological state and appearance¹⁶. Azizi et al.¹⁷ reported that having a fit body, enjoyment and having fun, and improving physical and mental health were the main motivations for students. In another study the preferences, university students' confirmed for take part physical activities are fun, physical exercise and likeness of sports¹⁸. Hoon and Ho observed that educational experience have a direct impact on social activities¹⁹.

While looking at these reviews it was learned that no similar research studies has been published in participation motives of students towards physical activities in Saudi Arabia. Thus this study was taken up to identify and compare the participation motives of Saudi students towards physical activity and sports at different educational level and it was hypothesized that there would be no significant difference in participation motives among students' educational level.

2. Method

2.1 Participants

The participants (N = 1039) were undergraduate students of KFUPM, Dhahran, Saudi Arabia who completed a 30 item survey assessing their participation motives of physical activity and sports. Their age was between 17 to 29 years; mean 20.60 ± 1.679 . According to their educational

level five categories were formed, namely, orientation (N = 352), freshmen (N = 293), sophomore (N = 191), junior (N = 93), and senior (N = 110). The dependent variables were participation motive factors, namely enjoyment/interest, competence, appearance, fitness, and social.

2.2 Instrument

The questionnaire Motivation for Physical Activities Measure-Revised (MPAM-R)²⁰ English version was administered to collect the data. The MPAM-R comprise of 30 items and their responses to each item were documented on a 7-point Likert scale ranging from 1 (not at all true) to 7 (very true). It comprises five participation motive factors, namely, *enjoyment/interest motives* (e.g., "I enjoy this activity"); *competence/challenge motives* (e.g., "I want to obtain new skills"); *appearance motives* (e.g., "I want to maintain weight to look better"); *fitness/health motives* (e.g., "I want to maintain physical strength") and *social motives* (e.g., "I want to be with my friends"). This instrument has established reliability for each factor with Cronbach's α ranging from .78 to .92. A demographic form was developed for this study to obtain information containing personal characteristics such as age, weight, height, educational level, number of hours involved in physical activity/sports per week etc.

2.3 Collection of Data

The data were collected through university e-mail services and some through distributing questionnaire directly to the students in the classrooms. Those who have done already through online were exempted from doing again. Participants were given adequate time to complete the questionnaire. A total of 1087 students participated in this survey in which 1039 questionnaires were valid.

2.4 Data Analysis

Statistical software SPSS version 17.0 was used to analyze the data. Data screening was undertaken to check the missing values and ensure that the values were within the expected range. Further Shapiro Wilk test was carried out to check the normality prior to data analyses. Descriptive statistics were calculated on the student's educational level (orientation, freshmen, sophomore, juniors and senior) on five motivating factors. Rank order was applied to find out the preferences of reasons for participation motives. Analysis of Variance (ANOVA) was employed to compare

Table 1. Descriptive statistics of participation motive factors at different educational level

Educational Level	Participation Motives Factors				
	Interest/Enjoyment Mean $\pm$ SD	Competence Mean $\pm$ SD	Appearance Mean $\pm$ SD	Fitness Mean $\pm$ SD	Social Mean $\pm$ SD
Orientation (352)	33.832 $\pm$ 8.888	32.613 $\pm$ 9.01	28.255 $\pm$ 8.180	25.911 $\pm$ 6.582	19.536 $\pm$ 6.873
Freshmen (293)	32.539 $\pm$ 9.724	31.276 $\pm$ 9.91	27.658 $\pm$ 8.874	26.576 $\pm$ 6.634	16.651 $\pm$ 7.086
Sophomore (191)	32.104 $\pm$ 9.923	30.397 $\pm$ 9.14	29.628 $\pm$ 8.991	26.832 $\pm$ 6.671	16.685 $\pm$ 7.241
Junior (93)	32.849 $\pm$ 9.647	29.225 $\pm$ 9.02	29.957 $\pm$ 9.036	27.215 $\pm$ 7.685	15.946 $\pm$ 7.747
Senior (110)	34.590 $\pm$ 9.901	32.845 $\pm$ 9.62	29.363 $\pm$ 9.667	27.845 $\pm$ 6.614	17.554 $\pm$ 7.506
Total (1039)	33.142 $\pm$ 9.563	31.550 $\pm$ 9.902	28.609 $\pm$ 8.892	26.590 $\pm$ 6.753	17.667 $\pm$ 7.270

the significance of difference among educational level and participation motivation factors. Further Tukey's post-hoc comparison of means was applied to determine the significance of differences among motivational factors and educational levels. The criterion for statistical difference was set at .05 level of confidence.

3. Results

The collected data pertaining to this study has been analyzed using proper statistical tools and presented below.

Table 1 represents the descriptive statistics of participation motive factors as, senior students had higher mean on "interest or enjoyment" ($M = 34.590$), "competence" ($M = 32.845$), and "fitness" ($M = 27.845$) than other education level students. Whereas, junior and sophomore students had better scores on "appearance" factor ($M = 29.957$ and 29.628) respectively than others. Orientation, students exhibited higher mean value ($M = 19.356$) on "social" factors than other levels of students.

Table 2 shows that reason for participation towards physical activity and sports stated by KFUPM students, on the basis of their percentage of responses. The five most important reasons for participation were 'because I want to be physically fit' (47%), (fitness); 'because I want to look or maintain weight so I look better' (39%), (appearance);

'because I want to improve my body shape' (39%), (appearance); 'because I want to maintain my physical strength to live a healthy life' (38%), (fitness); and 'because I want to maintain my physical health and well-being' (34%), (fitness). Whereas, the least important reasons were 'because my friends want me to' (4%), (social); 'because I want to meet new people' (8%), (social); 'because I like to be with others who are interested in this activity' (9%), (social); and 'because I want to be with my friends' (11%), (social) which indicated the social factors.

In Table 3 the results of ANOVA revealed a highly significant difference among five categories of educational level on a 'competence' factor $F(4,1034) = 3.419, p = .009$; and 'social' factor $F(4,1034) = 9.7461, p = .001$. However, no significant difference was observed between 'fitness' factor $F(4, 1034) = 2.107, p = .078$; 'interest/enjoyment' factor $F(4,1034) = 1.972, p = .097$ and 'appearance' factor $F(4,1034) = 2.347, p = .053$.

When the F-ratio found significant, then Tukey's post-hoc was applied to 'competence' and 'social' factors to determine the mean differences among the educational level (see Table 4). In 'competence' factor, the mean difference was observed between 'orientation' students and 'juniors' ($p = .030$) and no difference was observed between other students. But 'social' factors showed a highly significant mean difference between 'orientation'

Table 2. Rank order of participation motives expressed by KFUPM students

Statement	Rank	No. of Respondents	%
Because I want to be physically fit.	1	488	47
Because I want to look or maintain weight so I look better.	2	406	39
Because I want to improve my body shape.	3	403	39
Because I want to maintain my physical strength to live a healthy life.	4	391	38
Because I want to maintain my physical health and well-being	5	354	34
Because I want to improve my appearance.	6	324	31
Because I want to have more energy.	7	319	31
Because it's fun.	8	304	29
Because I want to define my muscles so I look better.	9	304	29
Because it makes me happy.	10	279	27
Because I enjoy this activity.	11	277	27
Because I want to improve my cardiovascular fitness.	12	275	26
Because I like to do this activity.	13	271	26
Because I want to get better at my activity.	14	256	25
Because I think it is interesting.	15	240	23
Because I want to improve existing skills.	16	205	20
Because I want to be attractive to others.	17	189	18
Because I like the challenge.	18	188	18
Because I want to obtain new skills.	19	181	17
Because I enjoy spending time with others doing this activity.	20	175	17
Because I want to keep-up my current skill level.	21	170	16
Because I will feel physically unattractive if I don't.	22	157	15
Because I like activities which are physically challenging.	23	152	15
Because I like engaging in activities which physically challenge me.	24	151	15
Because I like the excitement of participation.	25	132	13
Because I find this activity stimulating.	26	119	11
Because I want to be with my friends.	27	114	11
Because I like to be with others who are interested in this activity.	28	93	9
Because I want to meet new people.	29	85	8
Because my friends want me to.	30	46	4

and 'freshmen' ($p = .001$), 'orientation' and 'sophomore' ($p = .001$) and 'orientation' and 'junior' ($p = .001$).

4. Discussion

Descriptive data scores of student community exhibited higher mean scores on motivation factor 'interest/

enjoyment' followed by 'competence' factor. It reflects intrinsic motivation of students towards physical activity. This result is not surprising, enjoyment-interest motives refer to being physically energetic just because it makes people happy, enjoyable, interesting, stimulating, and it is fun. This result was supported with the previous studies: male students were frequently motivated by enjoyment²¹,

Table 3. Significant difference of participation motives of students among educational level

Participation Motive Factors		Sum of Squares	df	Mean Square	F	p
Interest or enjoyment	Between Groups	718.620	4	179.655	1.972	.097
	Within Groups	94216.299	1034	91.118		
	Total	94934.918	1038			
Competence	Between Groups	1360.645	4	340.161	3.419	.009*
	Within Groups	102874.452	1034	99.492		
	Total	104235.097	1038			
Appearance	Between Groups	738.603	4	184.651	2.347	.053
	Within Groups	81336.749	1034	78.662		
	Total	82075.351	1038			
Fitness	Between Groups	382.833	4	95.708	2.107	.078
	Within Groups	46958.502	1034	45.414		
	Total	47341.336	1038			
Social	Between Groups	1993.376	4	498.344	9.746	.001*
	Within Groups	52869.067	1034	51.131		
	Total	54862.443	1038			

achievement is fundamental for enjoyment^{6,7}, enjoyment, having fun, and experiencing joy as major motives for participation and practicing sports^{22,23}.

The results revealed that fitness factor has improved progressively with education levels. The findings are consistent with previous results, students with a higher level of studies exhibited high percentage of students motivated towards health and fitness^{24–26}.

The most important reason identified for participation towards physical activity as ‘fitness and appearance’ factor; having good physical fitness, maintaining physical strength to live a healthy life, improve body shape and maintain weight to look better. These results are confirming the findings reliably attained from earlier research studies^{17,27–29}. Physical health acknowledged as a significant motive³⁰ and fitness reflects health benefits³¹. Conferring to Self-Determination Theory³² fitness motives reflect the relatively autonomous form of motivation represented in ‘identified regulation’ (personally held values), whereas appearance-based motives are extrinsic in nature, tending to reflect ‘introjected regulation’ (for avoiding external sources of disapproval). It appears that students pursue physical activities and sports, mainly because of their external motivation.

Whereas, the least important reason for participation towards physical activity and sports were social factors; that ‘being with friends’ and ‘meeting new people’. These findings are consistent with previous studies^{33–35}.

Spending leisure time, being with friends, and participating in competitions was found as the lowest motivational dimensions³⁶.

To impart the knowledge of fitness and health benefits, the mentors and counselors should help and motivate these students to take up the physical activities seriously. Then physical education teachers and coaches should emphasize positive sensation such as fun and excitement that results from participation while lowering their emphasis on peer comparisons and competition.

Results of the study revealed that students joined the undergraduate program orientation (preparatory year) with vigor and high level of competence to face challenges, but may be due to the competitive study environment of the university competence level has gradually decreased and students took time to cope with the system of teaching and learning. Competence level has reached its peak during senior level, which definitely prepares them to compete and face challenges of life.

Sport is a social medium through which virtually every community and culture around the globe come together³⁷. Results showed that ‘social’ factor had a significant difference among students’ social motives. Being a residential university, there is less social interaction with people outside the campus; students are new to this campus and come from different regions of the country with different socioeconomic background. The climatic conditions of Saudi Arabia are very hot, so outdoor sports

Table 4. Multiple comparisons of mean difference by using Tukey's HSD

Dependent Variable	Educational Level (I)	Educational Level (J)	Mean Difference (I-J)	p
Competence	Orientation 32.613	Freshmen (31.276)	1.337	.437
		Sophomore (30.397)	2.216	.098
		Junior (29.225)	3.388*	.030*
		Senior (32.845)	-.232	1.00
	Freshmen 31.276	Orientation (32.613)	-1.337	.437
		Sophomore (30.397)	.879	.878
		Junior (29.225)	2.051	.418
		Senior (32.845)	-1.569	.623
	Sophomore 30.397	Orientation (32.613)	-2.216	.098
		Freshmen (31.276)	-.879	.878
		Junior (29.225)	1.172	.886
		Senior (32.845)	-2.448	.243
	Junior 29.225	Orientation (32.613)	-3.388*	.030*
		Freshmen (31.276)	-2.051	.418
		Sophomore (30.397)	-1.172	.886
		Senior (32.845)	-3.620	.076
	Senior 32.845	Orientation (32.613)	.232	1.000
		Freshmen (31.276)	1.569	.623
		Sophomore (30.397)	2.448	.243
		Junior (29.225)	3.620	.076
Social	Orientation 19.536	Freshmen (16.651)	2.885*	.001*
		Sophomore (16.685)	2.851*	.001*
		Junior (15.946)	3.590*	.001*
		Senior (17.554)	1.982	.083
	Freshmen 16.651	Orientation (19.536)	-2.885*	.000
		Sophomore (16.685)	-.033	1.00
		Junior (15.946)	.705	.922
		Senior (17.554)	-.902	.791
	Sophomore 16.685	Orientation (19.685)	-2.851*	.001*
		Freshmen (16.651)	.033	1.00
		Junior (15.946)	.733	.925
		Senior (17.554)	-.868	.849
	Junior 15.946	Orientation (19.685)	-3.590*	.001*
		Freshmen (16.651)	-.705	.922
		Sophomore (16.685)	-.739	.925
		Senior (17.554)	-1.608	.500
	Senior 17.554	Orientation (19.685)	-1.982	.083
		Freshmen (16.651)	.902	.791
		Sophomore (16.685)	.868	.849
		Junior (15.946)	1.608	.500

*The mean difference is significant at the 0.05 level.

activities are very much restricted. Another reason might be most of the students come from large families and feel less need to socialize outside their families. A significant difference found between competence and social factors among students at different educational levels. Thus the hypothesis set was partially rejected.

The previous findings reported that the choices of friendship as the foremost motive to take part in physical activities³⁸, men are more motivated by social experience³⁹. The findings are contrary to our result, as the university students are always busy with their home works, presentations, projects and study programs so there might be very less time for doing physical activities and sports as a team or socializing with others. Whereas, senior students have study tours, project works to be submitted as a team, which improved their interactions with others, and this translated to their urge to indulge in physical activity and sports programs along with motives to improve their fitness, appearance, competence level, interest and socialization.

Rewards or incentives may be given to the students for sports participation which will be an external motivation to students to engage in physical activities. In order to optimize the social experience of students there is a need for strategies to reduce the gap in socialization among students.

5. Conclusion

University students' rated the most important reasons for participation towards physical activity and sports as fitness and then appearance factors, which are explained by extrinsic motivation. Students tend to improve their competence, enjoyment or interest through physical activity and sports to optimize their physical well-being with progression of educational levels. The university has sufficient infrastructural facilities for physical activity and sports but students are not optimizing it to their advantage. The least important reason for participation motives for all level of students were social factors.

The results of the present study should be interpreted in view of some limitations. The current findings call attention to possible motivational factors for participation motives of University students towards physical activity and sports. Qualitative research methods could also be used to fully understand how the participants understood the meaning of the word "physical activity". Future research may be explored cognitive outcomes in addition

to motivational outcomes for example attentional span, concentration and level of learning.

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