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Study of sports motivation and participation in physical activity among students at Ras Al-khaimah Medical and Health Sciences University, United Arab Emirates

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Abstract

Motivation is a vital predictor of ongoing and possible future sports commitment. Therefore, understanding of motivation in sports engagement is crucial. The purpose of the current study is to investigate different types of sports participation motivation based on demographic characteristics and level of physical activities participation among university students.

Methods: A cross sectional descriptive study was conducted at Ras Al-Khaimah Medical and Health Science University, United Arab Emirates over a period of three months from March to May 2018. A pre validated structured self-administrative questionnaire was used to collect data from 197 participants from different colleges.

Results: About 60% of the students were motivated for participation in physical activity, out of which, 63.6 % (75/118) were more significantly motivated by intrinsic than by extrinsic motives (Mean score = 4.89 ± 1.07 vs 4.32 ± 1.03 , $p=0.00$). More than seventy percent (71, 6%) of students were involved in low-level physical activity, out of which 43.3% (61/141) were a motivated. There was significant gender, nationality, father occupation and mother education difference with respect to intrinsic motivation. However, no significant difference was found in relation to age, level of physical activity, socioeconomic status.

Conclusion: our study demonstrated intrinsic motivation for participation in physical activity based on gender, nationality, father occupation and mother education of university students.

Keywords: Physical activity, motivation, university students, sports, medical university

Introduction

Motivation to initiate, continue, and sustain physical activity involvement is important for ensuring positive developmental and healthy outcomes [1]. Motivation is the force which compels, prompts and energizes an individual to act or behave in a particular time for attaining some specific goals [2-4]. This force may be internal, that is the inner urge emanating from within an individual or external, the outer pulls or attractions that compel and drive him towards the activity. Indeed, there are always a mixture of reasons to achieve, behave, learn and react. Therefore, motivation is a combination of both internal and external factors as explained by many theories [5-8].

Sports participation motivation is multidimensional, incorporating intrinsic, extrinsic, and a motivation [9, 10]. Intrinsic motivation reflects the desire to do something because it is enjoyable. In contrast, extrinsic motivation reflects the desire to do something because of external rewards such as awards, money, and praise [11]. An intrinsically motivated individual will voluntarily participate in an activity in the absence of material rewards or external gain [9]. Finally, a motivation, the lowest form of motivation; it is comparable to the concept of "learned helplessness". Abraham *et al.*, 1978 proposed that a motivated athletes may no longer identify any good reasons to train or play and may eventually disengage from sports [12].

Literature on sports motivation pointed out that intrinsic motivation is associated positively with a number of desirable psychological consequences. These include experiencing flow state, vitality, positive affect, enjoyment, satisfaction, interest, concentration, effort, persistence, sportsmanship and adherence to exercise, and negatively with anxiety, burnout, boredom and fatigue.

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Nevertheless, there is also ample evidence that external motivation is associated with better performance in non-sport tasks [2, 3, 4]. In conjunction with the above studies, sports engagement is hypothesized to be affected by demographic characteristics (i.e., gender) and by athletes' ability levels [13]. Gender is an aspect of our society, which has an effect on all of us in our day-to-day lives. It has an influence on the type of job we are likely to take, our career paths, and even our interests. Gender differences are present everywhere including, not surprisingly, the world of sport [14].

In the last decade, several studies in the area of physical education and sport sciences have aroused a great interest in the study of the motivational climate and the intention of the students to practice sport or do exercise [15, 16, 17]. To attract youth's interest, knowledge of their motives and motivation is necessary. These information are also valuable for future sports development programs, sustainability of the sports itself. The motivation to participate in sports is a complex phenomenon. It is often associated with multiple engagement motives and different types of motivation [18]. Understanding of motivation in sports engagement is important because it is a vital predictor of ongoing and possible future sports commitment [19, 20]. The current study aimed to investigate different types of sports participation motivation based on demographic characteristics and level of physical activities participation among RAKMHSU students.

Research Methodology

Study Design & Setting: a cross sectional descriptive study was conducted at Ras Al khimah medical and Health Sciences University (RAKMHSU), United Arab Emirates (UAE) over a period of three months from March to May 2018.

Participants

A convenient sample of 197 students from different colleges in the campus of RAKMHSU (medicine, dental, nursing, pharmacy) was included in the study after getting their informed written consent.

Data collection procedure

A pre validated structured self-administrative questionnaire was used to collect data from participants. The questionnaire comprised of three sections; the first was demographic information included age, gender, nationality, parental education and occupation, number of family members, monthly family income, and college. The Socio-economic status (SES) scale [21] was used to divide participants into high, middle and low. The second was, a 28-item Sport Motivation Scale (SMS) developed by Pelletier et.al, 1995 [22] to measure sports motivation on three subscales namely; extrinsic, intrinsic motivation and a motivation. Finally, the Physical Activity Questionnaire to measure the level of sports participation of the participants as low, Medium or high based on the time spent in the last week practicing specific physical activities [23].

Ethical consideration

An approval was obtained from university research and ethical committee before commencement of the study. The objectives of the study were explained to participants and their informed written consent was obtained with assured confidentiality.

Pilot study

A pilot study was conducted after obtaining ethical approval to test the feasibility of questionnaire and necessary modifications were undertaken.

Data analysis

Data analysis was done using Statistical Package for Social Science (SPSS), version 19. Descriptive analysis was done by frequency, percentage, Mean and SD. Chi square test was used to find association between study variables and motivation dimensions. Independent t test was used for comparing mean score between extrinsic and intrinsic motivation. Level of significance was considered at P value less than 0.05.

Results

The study involved 197 students with diverse background demographic characteristics. The mean age of the students was 19.62 ± 3.78 years. More than two third (68.5%) of them were females and 58% students were non-Arab. The highest response was among college of medicine (43.7%) followed by dental (26.4%), Nursing (20.3%) and Pharmacy (9.6%). Participants were from different socioeconomic status (SES) with about one fourth of them (26.4%) were from low SES (table1).

Table 1: Demographic Characteristics of the studied participants (N= 197)

Demographic Characteristics	No.	%
Age		
18-24	174	88.3
Less than 18 years	7	3.6
More than 24 years	16	8.1
Gender		
Female	135	68.5
Male	62	31.5
Nationality		
Arab	82	41.6
None-Arab	115	58.4
College		
Dentistry	52	26.4
Pharmacy	19	9.6
Nursing	42	21.4
MBBS	86	43.7
Socio-Economic Status level		
High	67	34
Medium	78	39.6
Low	52	26.4

Study results revealed that about 60% of the students were motivated for sports (figure1). Out of which, 63.6 % (75/118) were more motivated by intrinsic factors (Mean score = 4.89 ± 1.07) than by extrinsic factors (Mean score= 4.32 ± 1.03), with a significant difference at $p=0.00$. More than seventy percent (71, 6%) of students were involved in low-level physical activity (figure2).out of which 43.3% (61/141) were a motivated. Students who practice vigorous (68%) and moderate(66.7%) physical activity were more motivated than those who practice low activity (56.6%) but the difference was statistically insignificant($p=0.59$) (table2). However, more than two third of students who practice the three levels of physical activity were significantly motivated by intrinsic factors than extrinsic motive ($p=0-05$) (table 3).

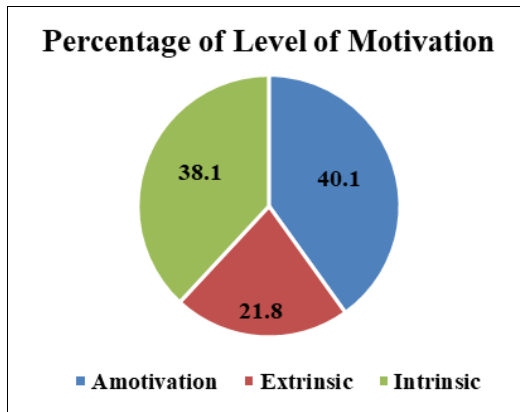


Fig 1: Percentage of Level of Motivation

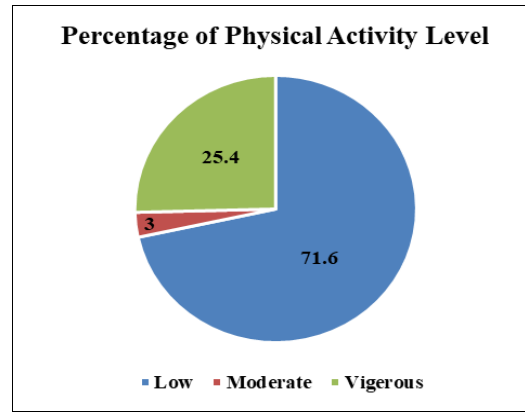


Fig 2: Percentage of Physical Activity Level.

Table 2: study of motives involvement with physical activity among university students.

Level of Physical activity	Motivation Profiles			P-Value
	A motivation No %	Extrinsic No %	Intrinsic No %	
Low (141)	61 (43.3)	31 (22.0)	49 (34.7)	0.24
Moderate (6)	2 (33.3)	1 (16.7)	3 (50.0)	
Vigorous (50)	16 (33.0)	11 (22.0)	23 (46.0)	

Table 3: The association between demographic characteristics and profile of motivation.

	Extrinsic No %	Intrinsic No %	P-Value
Age			
-Less than 18 years (101)	36 (36%)	65 (64%)	0.604
-18 to 24 (7)	2 (29%)	5 (71%)	
-More than 24 years (10)	5 (50%)	5 (50%)	
Gender			
-Male (81)	34 (42%)	47 (58%)	0.049*
-Female (37)	9 (24%)	28 (76%)	
Program			
-Dentistry (35)	12 (34%)	23 (66%)	0.408
- B.Pharm (13)	6 (46%)	7 (54%)	
- Nursing (12)	5 (42%)	7 (58%)	
- MBBS (50)	15 (30%)	35 (70%)	
- MSN (80)	5 (63%)	3 (38%)	
Nationality			
-Arabs (55)	38 (69%)	17 (31%)	0.044
-Non Arabs (63)	25 (40%)	38 (60%)	
Family income per month			
-Low (24)	6 (25%)	18 (75%)	0.263
-Medium (53)	24 (45%)	29 (55%)	
-High (41)	13 (32%)	28 (68%)	
Father education:			
-Illiterate (6)	3 (50%)	3 (50%)	0.049*
-Primary school Certificate (4)	2 (50%)	2 (50%)	
-Middle school Certificate (14)	5 (36%)	9 (64%)	
-High school Certificate (15)	6 (40%)	9 (60%)	
-Graduate / Post graduate (79)	27 (34%)	52 (66%)	
Mother education			
-Illiterate (7)	4 (57%)	3 (43%)	0.044*
-Primary school Certificate (4)	3 (75%)	1 (25%)	
-Middle School Certificate (14)	6 (43%)	8 (57%)	
-High school Certificate (24)	7 (29%)	17 (71%)	
-Graduate / Post graduate (70)	24 (34%)	46 (66%)	
Father occupation			
-Clerical, Shop-owner, farmer (13)	5 (38%)	8 (62%)	0.054
-Profession (75)	22 (29%)	53 (71%)	
-Semi-Profession (8)	5 (63%)	3 (38%)	
-Semi-skilled worker (5)	4 (80%)	1 (20%)	
-Skilled worker (11)	3 (27%)	8 (73%)	
-Unemployed (6)	4 (67%)	2 (33%)	

Mother occupation			
-Clerical, Shop-owner, farmer (3)	1 (33%)	2 (67%)	0.962
-Profession (49)	16 (33%)	33 (67%)	
-Semi-Profession (11)	5 (45%)	6 (55%)	
-Semi-skilled worker (3)	1 (33%)	2 (67%)	
-Skilled worker (8)	3 (38%)	5 (63%)	
-Unemployed (43)	17 (40%)	26 (60%)	
-Unskilled worker (1)	0 (0%)	1 (100%)	
Level pf Physical activity			
- Low (80)	31 (38.8)	49 (61.2)	0.049
-Moderate (4)	1 (25.0)	3 (75.0)	
-Vigorous (34)	11 (32.0)	23 (67.6)	
SES			
- high (41)	13 (32.0)	28 (68.0)	0.242
- middle (24)	6 (25.0)	18 (75.0)	
- low (53)	24 (35.3)	29 (57.7)	

Table 3 showed that there was a significant gender difference in students' sport motivation. More than three quarter (76%) of female students were more motivated by intrinsic factors compared with 58% of male students ($P= 0.049$). Sixty percent of students who are Non-Arab were significantly motivated by intrinsic factors compared with 31% of Arab ($p=0.04$). Father occupation and mother education also showed a significant difference in the study results. More than 70% of students whose mothers completed the high school education and their father are skilled workers were more motivated by intrinsic factors than extrinsic factors ($P=0.04$ & 0.05 respectively). Although the difference was insignificant along the intrinsic motivation between age groups, program, nationality, family income and number of family members; however, the younger age group students (<18years) were more motivated by intrinsic factors (71%) than other age groups 18-28 (37%) & >24 years(31%) ($P=0.6$). Medicine program students (70%) were more intrinsically motivated compared with other programs ($P=0.4$). 75% of students with low family income, 86% of students whom fathers education were middle school, 71% of students with family members of 3 were more motivated by intrinsic factors than other groups (table3). Forty five percent of motivated students towards physical activity were from low SES. There was no significance difference between SES and motivation dimensions ($p=0.24$) (table3).

Discussion

The current study aimed at providing further insights into the motives involvement with physical activity among the university students. The findings demonstrated that students were significantly motivated by IM for participation in physical activity. According to Standage *et al.* (2003), higher IM compared with EM is a positive sign because it reflects "ideal" engagement motives associated with sheer fun and fulfillment. Extrinsic motives were generally the athlete's reason for beginning participation in a particular sport, while intrinsic motives were most common for continuation in a particular sport [24]. Therefore, athletes who participate for enjoyment generally stick with the sport, while individuals who participate to gain something (the ideal body type, or a medal at the Olympics) are less likely to continue participation in that sport after they fulfill their extrinsic needs [25].

Ploeg V *et al.* 2014 found that physical activity could be linked with improved physical and mental health among children. Participate of more physical activities is associated with lower chances to experience illness [26]. Although sports

facilities are provided at RAKMHSU; students still lacks sufficient physical activity. Therefore, it is important to raise their awareness about healthy life styles. On the other hand, students were motivated to participate in physical activity for enjoyment and fun rather than gaining something to fulfill their extrinsic needs. Such participation without any external pressures and for enjoyment seems to make adolescents view their performance of physical activities and sport as being more effective. This is most likely because their effort and persistence are greater [27], which results in a better performance. Furthermore, as the reason for the action is internal, the individual usually feels less anxious and will perform better than when there are extrinsic pressures [28].

As usually expected, sport potentially means more for male as a tool for achieving popularity in society and among friends, while female experience sport more as a means of health and wellbeing [29]. The current study results was inconsistent with many previous studies, where significant gender differences have been found in college students' sport motivation [30-35]. These studies found that males had a tendency to be more motivated by intrinsic factors, whereas females were more motivated by extrinsic factors. Males were more likely to mention enjoyment, challenge, social recognition, affiliation, competition, and strength and endurance as motivating factors for sport. Whereas females had stronger motivations to exercise because of health, physical condition, and well-being, weight management, and appearance. However, it should be also noted that earlier studies revealed that female athletes demonstrated greater interest in fun, satisfaction, and pleasure, which are fundamental characteristics of IM than their male counterparts [36, 37]. These inconsistent findings could reflect the paradigm shift between modern-day and former athletes. Ryan *et al.* (1997) hypothesized that, competence and enjoyment as intrinsic motives predicted attendance and adherence while body-related motives did not predict adherence to a particular sport [25]. Younger age athletes are more likely to attend and adhere to a particular sport for competence and enjoyment. In the current study, there was no relevant age-based differences among the studied students; however, the younger students were more motivated by intrinsic factors to participate in sports activities.

The study results showed that, Non-Arab students were significantly more motivated by intrinsic factors than the Arab students. The reason for inconsistency could be explained by cultural influence on youth's motivation of participate in physical activities, depending on the country that the students come from [38]. Parents have an essential influence on

children's participation in sports. Parental behavior facilitates children perception of their own competence, modeling their achievement expectations ^[39]. Association of the parental educational level and father occupation with intrinsic motivation to participate in physical activity could correspond to a male predominance culture where men decide the main things in a family. Men educational level seem to be more decisive to decide whether the children participate in competitive sport and be supported or not ^[40].

According to Slepíčka and Slepíčková, 2007 ^[41] in a population over 18 years, the economic conditions of families were directly linked to children's active involvement in sports ^[42]. Talsberg & Pedersen, 2010 confirmed that there is a relationship between socioeconomic status and motivation for physical activity participation, and teenagers with higher SES are more active than those with low SES ^[43]. In contrast, Klishadi *et al.*, 2016 found that adolescents with higher SES had a healthier diet, but less physical activity than those with the current study findings are, however, consistent with the former one as forty-five percent of the motivated students were from low SES.

Study limitations can be traced to the lack of generalization of results because data collection was carried out only in one university in Ras al-Khaimah. Future studies could consider emirate or nationwide cross-sectional to ensure better generalizability. Additionally, examination of interaction of personal (e.g., personality, needs, interests, and goals) and situational (e.g., coaching style, facilities attractiveness, and team win-loss record) factors could be valuable for understanding reasons behind lack of sufficient level of physical activity among university students. This result must be considered bearing in mind the importance of learning in physical education in the promotion of active and healthy life styles.

In conclusion, this study revealed that intrinsic motivation and extrinsic motivation are substantially different according to gender, culture differences, and socioeconomic status but not according to physical activity levels, age, and college.

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