

MOTIVATION AND INVOLVEMENT TOWARD PHYSICAL ACTIVITY AMONG UNIVERSITY STUDENTS

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ABSTRACT

This study investigates intrinsic and extrinsic factors that influence involvement of university students to participate in physical activity. 400 students comprising 200 men and 200 women were used as the main respondents were respond to the adapted Exercise Motivations Inventory questionnaire. It revealed that highest mean value of the intrinsic factors are health and fitness ($M = 4.37$), while for extrinsic factors are factors peers and friends ($M = 3.97$). There is significant differences in the involvement of intrinsic motivation factors motivated health and fitness ($t = -5.05$, $p < 0.05$) and body-related factors ($t = -6.51$, $p < 0.05$) by gender. As for the extrinsic motivation that only the family ($t = -6.98$, $p < 0.05$) showed significant differences by gender.

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Lastly, intrinsic motivation body related and extrinsic motivation factors (role of university) are the most contributing factors to the physical activity.

Keywords: physical activities; students; involvement; motivation.

1. INTRODUCTION

Physical activity is a very important activity because this activity can take care of one's health as well as the individual away from the dangerous diseases such as heart disease, hypertension, diabetes and others. Moreover, physical activity can bring benefits to the individual and also to combat a variety of diseases and conditions that affect the physical and mental health [1].

Mental health such as cognitive function can be improved by lowering levels of anxiety and depression and increase feelings into a more positive direction through physical activity and exercise [2]. This shows physical activity can improve the performance of students in terms of physical and mental challenges at school.

The incidence of disease among humans today are associated with an unhealthy lifestyle such as lack of exercise, smoking, eating an unbalanced diet and drug abuse. There is an evidence that practice of unhealthy lifestyle is one of the ten leading causes of death for the more than two million deaths associated with lack of exercise [3]. Lack of sufficient exercise activity leads to increased levels of disease and doubles the risk of heart disease for individuals who have aged.

Moreover, the participation of the students to do physical activity is very low. By that, this research is to study the intrinsic and extrinsic factors that influence UKMs students to participate in physical activity. Participation in physical activity has been shown to increase the level of fitness and self-confidence of a person. In addition, physical activity can also help a student to be fit and healthy while studying in class [4]. Nowadays, there are so many activities to form a complete individual whether physical, mental, social and spiritual. Physical activity or sport is one area that can help equip people to become useful individuals. There are various types of physical activity. Among them is like jogging, swimming, cycling, aerobics, kayaking, rock climbing and others. Physical activity can rebuild a sense of goodwill and national integration among the younger generation. Physical activity can also

cultivate, nurture and provide initial training of leadership, character and community to the younger generation.

Reduction of physical activity at least to some extent led to the involvement of adults because of their physical activity does not have a profound impact on their health. The motivation should be extended to all groups of significant to the health of every individual. Normally, the factors that most influence the students' involvement in physical activity is the level of self-image, the support of friends and the support of parents. However, in this age of physical activity has been a major issue of importance in maintaining the health of individuals comprising children, teenagers and adults. The correlation between physical activity and health has been recognized by health experts as a way to avoid many dangerous diseases [5]. Therefore, the research questions that have been examined in this research are as follows; 1) is there a significant difference between students' intrinsic motivation to do physical activity based on gender?; 2) Is there a significant difference between extrinsic motivations of students in physical activities based on gender?; Is there a significant difference between the impacts of the involvement of students in physical activities based on gender?; Is intrinsic motivation factor that most contributed to the impact of the involvement of UKMs students to do physical activity?; What is extrinsic motivation factor that most contributed to the impact of the involvement of UKMs students to do physical activity?

Thus, the main objective of this study was to investigate the intrinsic and extrinsic motivation factor that influences the involvement of students of Universiti Kebangsaan Malaysia (UKM). This study provides an overview of factors intrinsic motivation, extrinsic motivation factors and the impact of the involvement of the respondents choose to engage in physical activities based on gender. The study also aims to identify intrinsic and extrinsic motivation factor that most contributed to the impact of the involvement of UKMs students to perform physical activity. Finally, this study also examines the relationship between intrinsic motivation and extrinsic motivation on the impact of the involvement of UKMs students to perform physical activity.

2. LITERATURE REVIEW

Based on the study through physical activity, there are a number of benefits including reduced risk of cardiovascular disease and cancer of the colon-rectum, weight management, build up energy and increased stamina [6]. In addition, this research found that the majority of respondents engage in physical activity requires more than one motivating factor. Researchers have used five factors to intrinsic factors of health and fitness, enthusiasm and excitement, skills and expertise as well as the relevant body. For extrinsic factors, researchers have listed four factors, friends, family, sports facilities in university and role of university.

It has been elicited that mostly college students, men and women are dissatisfied with their body image [7]. Researchers also found that girls are more inclined and motivated to achieve the perfect body shape than males. For college students, body weight and body image determines their status in the social events because it can increase their attractiveness to the opposite gender. Physical activity serves to help them have a slender or lean body shape and reduce their anxiety in social events.

2.1. Concepts of Physical Activity

Physical activity promotes positive emotions, including the reduction of emotional distress, anxiety and stress and low self-confidence. Evidence suggests that exercise promotes a positive self-image, especially among adolescents who suffer from low self-esteem [8]. In addition, take part in physical activity can protect themselves from unhealthy social activities through its impact on psychology. Various definitions of physical activity were found in previous research.

Info from an article, physical activity is known as a highly effective way to take care of women's health [9]. It shows that physical activity is very important for women to maintain their health and body shape. Physical activity can be defined as body movement produced by skeletal muscle and can reduce the calories a person's body [10]. This indicates that doing a physical activity can stay away from any dangerous disease and it is good for one's health.

Physical activity can also provide health benefits to women and men [4]. The involvement of physical activity has also been proven to improve skills in solving problems, increase positive moral development and improve the overall quality of life. Normally, the goal of exercise for

women and men is the health care of their health and assist in the prevention of dangerous diseases.

2.2. Motivation

The main issue in physical activity and an investigation into the involvement of students to perform physical activities associated with the role of an individual's motivation [11]. This shows that the motivation and participation in physical activity has a relationship with each other. Normally, people will engage in physical activity when they feel comfortable with factors such as motivation, self-confidence, environmental conditions, enjoyment, interests, friends and family [12-13]. In addition, the activity will be defined as leisure time activities must include the elements of free choice, freedom from constraints which involve intrinsic motivation, relaxation, personal involvement, and self-expression [14]. Nowadays, teenagers are aware that physical activity is important for maintaining good health.

In addition, there may be a variety of backgrounds and traditions that motivate UKMS students to participate in sports. Parental involvement is an important aspect of youth sports. However, parents need to understand why children decide to take part in sporting events [15]. This suggests that parents of young women and men who exercise regularly can influence their children's participation in physical activity compared to those coming from parents who are not active. The study concluded that students will be more motivated to play sports or engage in physical activity as family background and social conditions around them.

Motivation of the various domains directly supported by the surrounding circumstances that place youth to participate in sports because they have very high support from their friends and family [16]. Parents should try to teach their children to engage in physical activity. For example, take the children to the leisure and recreation for physical activities every weekend. Physical activity should be fun, so do not be seen as a time wasting. In addition, physical activity is one of the effective ways to ensure that a person remains active. Student participation in physical activity, can help increase the fun in the life of every individual and in the same time also be able to maintain a good health status. Nevertheless, despite the many health benefits of regular physical activity, most people living in industrialized countries are not sufficiently active to practice a healthy culture.

However, there is evidence stated that the level of physical activity of the population based on the general population is less than optimal [17]. This shows that a person's interest to participate in physical activity on the environment or public. For those who enjoy and can regularly attract students to perform physical activity. Interest in physical activity is an essential element for a student to continue physical activities consistently.

2.3. Type of Physical Activity

Based on previous study, if the activity is related to sports, recreational activities and these activities around the house figured women need moderate-intensity activities while men prefer to be involved with the character of high intensity activity [3]. To provide better public activities, studies show that teenagers and students require a high-intensity activity that figured to be done in their lives.

Qualitative study of physical activity among adolescent minority adolescents China and the Philippines that China most adolescents do their physical activity with exercise and jogging [18]. While, most Filipino teen less physical activity and more found of socializing. In addition, he also said young Filipinos prefer a mild physical activity and not using more energy than China, the majority of adolescent physical activity that uses a lot of energy. Based on this statement, he indicated that some activities can be categorized as physical activity based on the activities involved in their daily lives in the form of low, medium and high.

2.4. Relationship between Participation in Health and Physical Activity

Rising obesity rate of adolescents is a public health concern globally. This is because not only affects health in childhood and adolescence, but also because of the greater risk in terms of increasing obesity among adults. There is a widespread view that the decline in physical activity that contribute to health problems [19]. Physical activity is known as a highly effective and effective health care for adolescent girls and boys to be more healthy and energetic.

Physical activity gives confidence and a healthier life with many positive health benefits to each individual. Exercise and sports participation is the best way to reduce the risk of physical problems such as cardiovascular disease, high blood pressure, obesity, breast cancer and mental problems [16]. This shows that boys and girls will take part in physical activity to

avoid health problems and live a healthier life.

Furthermore, physical activity has a positive effect on physiological and psychological well-being of children and adolescents and believed to be important for the development and maintenance of a pattern of behavior related to health that will carry over into adulthood [20]. From this reality, physical activity has many health benefits. For example, a child has been exposed to engage in physical activities and when children grow up they will continue to engage in physical activity. It will maintain good health.

Childhood obesity has increased dramatically in the United States, especially among American women who are not active [21]. Approximately, 36.7% of American girls aged 6 to 11 years are at risk for overweight because they do not practice a healthy culture and irregular eating habits. This shows the exposure of a healthy culture must be applied to all households to educate their children about the importance of physical activity.

3. METHODOLOGY

3.1. Research Design

This research is a descriptive study of a review. The study was a quantitative study using numerical data during the review process carried out starting with the process of data collection, data analysis and conclusions about the data [22-32]. The survey design was selected for this study using a questionnaire to collect data. Data were collected through quantitative methods using questionnaires that have been modified and confirmed its reliability.

3.2. Participants

A sample of 400 students selected from eight colleges UKMs contained in UKM, Bangi where respondents have to answer to the questionnaire given in their residential colleges [39]. The respondents are comprised of males and females at random from each of the different colleges in UKMs.

3.3. Data Collection Procedure

The instrument used to collect data in this study is based on a questionnaire prepared by the researchers. Questionnaire using Exercise Motivations Inventory (EMI) questionnaire and

Participation Motivation Questionnaire [33-34]. The questionnaire was modified to facilitate students' understanding of the questionnaire as well as appropriate research. This questionnaire is to identify the extent to which motivation factors and associations with the involvement of students engaging in physical activity. Evaluation respondents to this survey are based on a 5-point Likert scale. Planning and selection methodology should be made with due care and diligence to ensure that the data that has been collected in accordance with the objectives to be achieved.

3.4. Data Analysis

Analytical data obtained were analyzed using descriptive statistics and statistical inference in this study. Descriptive analysis is used to explain the background of demographic research and basic factor in variables. Further analysis of the inference help researchers answer the research questions for their differences, as well as interactions between variables (gender) based on independent samples t-test and multiple regression analysis [27-32].

4. RESULTS

Table 1 shows that intrinsic motivation is divided into four functional elements of the health and vitality, enthusiasm and excitement, skill and expertise and related bodies. Analysis of independent samples t-test showed a significant difference between the involvement of boys and girls for intrinsic motivation factors of health and fitness ($t = -0.05$, $p < 0.05$) and related factors of the body ($t = -6.51$, $p < 0.05$) only.

Table 1. Difference test between students' intrinsic motivation to do physical activity based on gender

Motive	Gender	gender					
		N	Mean	SD	df	t Value	P Value
Health and Fitness	Male	200	4.20	0.78	398	-5.05	0.00
	Female	200	4.53	0.50			
Interest and Enjoyment	Male	200	4.06	0.72	398	-4.22	0.09
	Female	200	4.33	0.55			
Skills and Expertise	Male	200	4.00	0.75	398	-3.98	0.46
	Female	200	4.29	0.69			
Bodies Related	Male	200	3.94	0.85	398	-6.51	0.001
	Female	200	4.42	0.60			

Table 2 shows that extrinsic motivation is divided into four elements namely the function of family, friends, sports and the role of our facilities at the university. Analysis of independent samples t-test showed that there were significant differences between male and female students' participation for family factors ($t = -6.98$, $p < 0.05$) only. However, the mean of extrinsic motivation factor family for boys ($M = 3.52$) and girls ($M = 4.09$). Min refers to the views of female students are more influenced and motivated to do physical activity for families affected by extrinsic factors.

Table 3 shows the analysis of the impact of differences in student participation of UKMs in physical activities based on gender. T-test analysis found no significant differences in the impact of the involvement of UKMs ($t = -4.20$, $p > 0.05$) on the basis of gender. These findings indicate that gender does not affect the impact of the involvement of UKMs students. However, female students showed higher mean ($M = 4.13$) for the involvement than males ($M = 3.92$).

Table 4 shows the results of multiple regression analysis of the impact of UKM involvement in physical activity. Multiple regression analysis was conducted to see the intrinsic motivation of health and fitness factors, factors of interest and enjoyment, skills and expertise and the body related factors that most contribute to the impact of the involvement of UKMs students to perform physical activity. In particular, the analysis shows that intrinsic motivation factors

related to the body (52%) is seen as a motif that most contributed to the impact of the involvement of UKMs students to perform physical activity.

Table 2. Differences test between extrinsic motivations of students in physical activities based on gender

Motive	Gender	N	Min	SD	df	t Value	P Value
Family	Male	200	3.52	0.85	398	-6.98	0.01
	Female	200	4.09	0.77			
Friends	Male	200	3.79	0.71	398	-4.89	0.111
	Female	200	4.14	0.72			
Sports Facilities	Male	200	3.59	0.63	398	-5.11	0.114
	Female	200	3.97	0.60			
Role of University	Male	200	3.68	0.86	398	-4.99	0.06
	Female	200	4.09	0.76			

Table 3. Differences test between the impacts of the involvement of students in physical activities based on gender

Motive	Gender	N	Min	SD	df	t Value	P Value
Impact of Involvement	Male	200	3.92	0.54	398	-4.20	0.21
	Female	200	4.13	0.46			

Table 4. Intrinsic motivation factor that most contributed to the impact of the involvement of UKMs students to do physical activity

Variables: Intrinsic Motivation Factor	Coefficient R ²	t Value	P Value	F Value
Health and Fitness	0.18	-4.28	0.01**	107.27
Interest and Enjoyment	0.35	6.68	0.01**	(0.00)
Skills and Expertise	0.44	5.55	0.04**	
Bodies Related	0.52	8.09	0.01*	

Table 5 shows the results of multiple regression analysis of the impact of the involvement of UKMs for physical activity. For this question, multiple regression methods were used to seeing extrinsic motivation factor that most contributed to the impact of the involvement of UKMs students to perform physical activity. Multiple regression analysis was conducted to

see which factors extrinsic motivation factor family, friends, sports facilities and the role of University contributes to the impact of the involvement of UKMs students to perform physical activity.

Table 5. Extrinsic motivation factor that most contributed to the impact of the involvement of UKMs students to do physical activity

Variables: Extrinsic Motivation Factor	Coefficient R²	t Value	P Value	F Value
Family	0.19	1.38	0.14	65.59
Friends	0.34	11.7	0.01**	(0.00)
Sports Facility	0.38	3.70	0.01**	
Role of University	0.40	3.57	0.01*	

In particular, the analysis shows that the role of universities extrinsic motivation (40%) is seen as a motif that most contributed to the impact of the involvement of UKMs students to participate in physical activity.

5. DISCUSSION

The findings descriptive analysis and statistical inference report the difference between the study variables based on the conceptual framework. There are five main objectives of this study, first, is to identify, whether gender affects the intrinsic motivation of students UKMs to participate in physical activity. Second, is to identify whether gender influences extrinsic motivation factor UKMs students to perform physical activity.

Next, for third objective is to identify whether gender affects the impact of the involvement of UKMs students to perform physical activity. Fourth is to identify the intrinsic motivation to contribute to the impact of the involvement of UKMs students to perform physical activity. Lastly, fifth is to identify extrinsic motivation that most contribute to the impact of the involvement of UKMs students to perform physical activity.

The first research question of the study is to identify whether gender affects the intrinsic motivation of students UKMs to participate in physical activity. Independent samples t-test was used to see the difference between intrinsic motivation factor UKM students in physical activities based on gender. Analysis of independent samples t-test showed a significant

difference between the involvement of boys and girls for intrinsic motivation factors of health and fitness ($t = -0.05$, $p < 0.05$) and related factors of the body ($t = -6.51$, $p < 0.05$) only. Meanwhile, the mean of intrinsic motivation factors of health and fitness for male students ($M = 4.20$) and girls ($M = 4.53$). While, the mean of the relevant factors for the body to male students ($M = 3.94$) and girls ($M = 4.42$). Referring to the mean can be seen that female students are more motivated and influenced by health and fitness as well as factors related to the body because they are more concerned with their physical appearance as well as to take care of their health. This finding is supported by previous research elicited that exercise and physical activity can help women to recover from cancer [35]. This indicates that the physical activity of students, men and women can take care of their health and their bodies from being exposed to dangerous diseases. In general, students UKMs are also concerned about their appearance that always looks attractive from the point of view of people around. However, there was no significant difference between the sexes for intrinsic motivation factors of interest and enjoyment as well as skills and expertise.

The second research question is to identify whether gender influences extrinsic motivation factor UKM students to perform physical activity. Independent samples t-test was used to see the difference between extrinsic motivation factors UKM students in physical activities based on gender. Analysis of independent samples t-test showed that there were significant differences between male and female students' participation for family factors ($t = -6.98$, $p < 0.05$). Meanwhile, the mean of extrinsic motivation factor families for boys ($M = 3.52$) and girls ($M = 4.09$). Mean refers to the views of female students are more influenced and motivated to do physical activity as influenced by the family in terms of support and exposure early on the importance of physical activity than males. The family support is promote the students' involvement in physical activity and it is due to the culture and background of their families who continue to adopt a healthy culture [15]. Family support and encouragement are the key factors of adolescent involvement in sport and physical activity. It shows students gained early exposure on a culture of healthy and active is from their families. However, there was no significant difference between the sexes for extrinsic motivation factor of partners, a sports facility and the role of universities.

The third research question is to identify whether gender affects the impact of the involvement of UKMs students to perform physical activity. T-test analysis found no significant differences in the impact of the involvement of UKMs ($t = -4.20$, $p > 0.05$) on the basis of gender. These findings indicate that gender does not affect the impact of the involvement of UKMs students. However, female students showed higher mean ($M = 4.13$) for the involvement than males ($M = 3.92$).

The fourth research question is to identify the intrinsic motivation to contribute to the impact of the involvement of UKMs students to perform physical activity. For this issue, the multiple regression method was used to see the most intrinsically motivating factors contribute to the impact of the involvement of UKMs students to perform physical activity. Multiple regression analysis was conducted to see the intrinsic motivation of health and fitness factors, factors of interest and enjoyment, skills and expertise and the body related factors that most contribute to the impact of the involvement of UKMs students to perform physical activity. In particular, the analysis shows that intrinsic motivation factors related to the body (52%) is seen as a motif that most contributed to the impact of the involvement of UKMs students to perform physical activity. Based on theory, female students are more motivated to do physical activities than male students, motivating students' participation in physical activity is because they want to keep their bodies in order to look attractive and healthy [36]. This shows the retention of a strong and healthy body can provide high confidence in individuals who engage in physical activity and sport. This was followed by, motivation skills and expertise (44%), motivation factors of interest and enjoyment (35%) and health and fitness motivation factor (18%) also viewed still contribute to the impact of the involvement of UKMs students to perform physical activity. These suggesting that, interest, excitement and expertise is one of the main important factors that affecting an individual's physical activity [17].

The fifth study also identifies extrinsic motivation is that most contribute to the impact of the involvement of UKMs students to perform physical activity. To this question, the multiple regression method is used to view extrinsic motivation factor that most contributed to the impact of the involvement of UKMs students to perform physical activity. Multiple regression analysis was conducted to see which factors extrinsic motivation factor family, friends, sports

and the role of our facilities at the university contributes to the impact of the involvement of UKMs students to perform physical activity. In particular, the analysis shows that the role of universities extrinsic motivation (40%) is seen as a motif that most contributed to the impact of the involvement of UKMs students to perform physical activity. This finding is similar to the theory of achievement motivation, which stated that the motivation of a person is born and grow if the environment is favourable [37]. Environmental conditions, especially during training is one element that is very important in influencing the level of motivation. However, factors extrinsic motivation facilities sports facilities (38%) and extrinsic motivation factor of partners (34%) also viewed still contribute to the impact of the involvement of UKMs students to perform physical activity. However, only the motivation factor is not significant and affects the impact of the involvement of the students to do physical activity.

6. CONCLUSION

Overall, physical activity is one way to practice a healthy lifestyle among students UKMs. There are various factors that affect the participation of UKMs students to perform physical activity in terms of intrinsic and extrinsic factors. This study showed between intrinsic and extrinsic factors, factors that most affect or contributed to student involvement is related bodies that are present in intrinsic motivation factor. This is supported by the theory, whereby the boys and girls who are still studying at the university is very conscious of their bodies and view other friends to them, for their bodies is one attraction to the opposite gender [7].

The study also found that most students agree that UKM participation in physical activity is due to factors intrinsic and extrinsic motivation, which consists of body-related factors (intrinsic factors) and the role of Universities (extrinsic factors). This shows that the motive involvement of UKMs students engage in physical activity because you want to keep yourself skills and the support of the University in all aspects. Theory of achievement motivation states that a person is born and motivation to grow if the environment is favourable [37]. Environmental conditions, especially while undergoing an activity is a very important element in influencing a student's level of motivation.

The study also identified a strong relationship between intrinsic motivation factors with the

impact of the involvement of UKMs students to perform physical activity. This suggests that there are factors in the intrinsic motivation factors such as health and fitness, enthusiasm and excitement, skills and expertise as well as the relevant bodies is an important element that affects the involvement of students to perform physical activity. However, extrinsic motivation factors also contribute to the involvement of students even do with the involvement of only moderate impact. Therefore, any party that consists of UKMs and Sports Department of the university should emphasize the aspect of motivation to encourage more students to engage in physical activity thus foster healthy cultural practices among male and female students. This study is also important to produce students who are healthy both physically and spiritually. This practice shows that more active lifestyles, especially among students is the most effective way to produce the next generation of healthier and more energetic.

7. RECOMMENDATION

Further studies should be conducted in a more comprehensive and detailed view of the different aspects of the extent to which the effect or the contribution of intrinsic and extrinsic motivation factors that affect students' involvement in physical activity. Structure category motivation should be explored in greater depth in order to strengthen the motivation to become the cornerstone of their engagement.

In addition, researchers also suggest that more research is made more spacious and open. The study should be on the larger population that is no longer limited to only the university but at other universities. For example, the difference motivation factor of students to public and private institutions of physical activity. Furthermore, identify the contribution of these factors to their involvement. This study could also be extended to institutions of others. Sport and physical activity invigorates the body and the human mind is the things necessary for every human being and it is an important element in human life [38].

However, researchers also hope that this study can be extended not only the students' involvement in physical activity but also for other activities such as recreational activities, sports activities and water sport activities. These activities are able to measure the interest of

students and youths have to interact with all physical activities covering all aspects of land, air and sea. This studies are important for the ministry and the university to organize and plan various activities beneficial to enhance involvement of students and youth. Lastly, sport facilities and equipment including any physical activity accompanied by the students should be upgraded from time to time. For example, a jogging trail suitable and safe to be taken into account because jogging is an activity that showed highest involvement from UKM students.

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