

DETERMINATION OF THE LEVEL OF PERCEIVED ADVANTAGES AND OBSTACLES FROM PHYSICAL ACTIVITY OF STUDENTS

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Abstract

The impact of physical activity on the health of people is proven by the large number of research to date. Sadly, there is a larger part of the population that is not physically active enough. Diseases whose cause is hypo-kinesis represent large problems for contemporary medicine. To determine any perceived benefits or obstacles from exercise a scale of benefits/obstacles from exercise was applied on a sample of 603 female respondents randomly selected from several universities including the state universities of Tetova 320 students, Tirana 154 students and Prishtina 129 students. The dominant benefit of exercise that students perceive is physical performance. This is followed by psychological benefits, improved quality of life and the enhancement of health and social interaction. Statistically significant differences were found among most subscales in assessing perceived exercise benefits. The biggest obstacles to exercise that students believe is physical exertion, followed by a proper environment for exercise, lack of time and discouragement from the family. Statistically significant differences were not found between the subscales of exercise environment and a lack of time. The implications of this research in developing strategies or educational programs to promote physical activity indicate an importance for students to increase the benefit - disability ratio. Applied interventions should help students relieve or overcome the feelings of discomfort from physical exertion during exercise i.e. the reduction of perceived barriers, and emphasize health and other benefits of regular exercise i.e. increase expected benefits.

Keywords: physical activity; students; motivation; benefits; obstacles; health behavior

1. Introduction

Physical activity is a complex behaviour that is affected by many internal and external factors such as cultural, psychological/cognitive, physical and social which surround the individual. An explanation of affect factors on the change of behaviour is crucial in drafting interventions, strategies and educational programs that will contribute to an increase in the level of physical activity in youth. (Sallis et al, 2000)

Currently the long term success of strategies for the increase of physical activity in the student population, especially in females, has not been achieved. For the purpose of developing effective health strategies it is necessary to investigate motives for physical activity and the challenges that are faced while attempting to be active. (Zunft et al, 1999) In this context perceived benefits and obstacles from exercise are important mitigating factors for change of physical activity as a complex behaviour. (Nahas, Goldfine, & Collins, 2003) An analysis of factors that affect participation in physical activities suggests that students who perceive more benefit from exercise and fewer obstacles were usually more active than those who reported substantially high obstacles and low perceived benefit. (Vaughn, 2009) These findings are in concert with a theoretical frame of the model of health beliefs, or HBM. (Janz & Becker, 1984) His basic assumption is that health behaviour is specified with a perception of risk and danger from the occurrence of disease, and on the basis of an analysis of advantages and disadvantages which change said behaviour. The first four constructions of the model of health belief are perceived sensitivity, perceived weight, perceived benefits and perceived obstacles. This indicates that the probability of an individual to be active in healthy behaviour, such as physical activity, in large measure depends on the extent of perceived obstacles or perceived benefits from exercise.

Although the research indicates that perceived obstacles are key in forecasting healthy behaviour (Janz &

Becker, 1984), newer research by El Ansari and Phillips suggest that this question is more complex. This implies that the relationship between perceived obstacles and benefits is a better predictor in which directions said behaviour will move. (El Ansari & Phillips, 2009) Also, it should be taken into consideration that psycho-social factors such as self-efficacy, demographic characteristics, age, peer pressure on the individual and others factors such as knowledge play important roles in engagement and adherence to intervention for change of one's physical activity as a behaviour. (Rosenstock, Strecher & Becker, 1988)

Recent research indicates that soon one quarter of all students who begin studying receive significantly increased body weight in the course of their first semester. This supports the need for effective strategies to help these young people to maintain a healthy body weight. (Wengreen & Moncur, 2009) Universities have a similar impact in the promotion of physical activities as well as schools. (Armstrong & McManus, 1994) Such patterns of physical activity remain stable up to five years after graduation. (Sparling & Snow, 2002) Hence the benefits of a motivated student population to be active are double. The first is for direct results of physical activity as behaviour related to benefits of public health. The second is for long term results.

With all parameters set out this research has been worked for the basic purpose to determine perceived benefits and obstacles from exercise in the student population along with the percentage of scale for benefits/obstacles from exercise or EBBS. (Sechrist, Walker & Pender, 1987) The results from research should help kinesiology, health workers, researchers and creators of policy to design more appropriate programs and strategies to better suit individual needs of students with the purpose to increase their levels of physical activity.

In North Macedonia, Albania and Kosovo there is no large number of studies which researched factors that affect the physical activity of young people. However, throughout the world a large amount of research has been done in many of countries with different geographical environments. This asks the question of whether the obtained data from said research can be focused upon the Albanian students from the Republics of North Macedonia, the Republic of Albania and the Republic of Kosovo.

2. Methods of work

2.1. Sample of respondents: The research was conducted on a sample of 603 female respondents randomly chosen from several faculties within the state universities of Tetova 320 students, Tirana 154 students and Prishtina 129 students. The respondents were aged 18 to 28 years old. The survey was conducted electronically using an appropriate work organization that is inherent in such surveys. The respondents were treated according to the Helsinki Declaration. The data was collected by the method of a structured survey questionnaire.

2.2. Sample of variables: Exercise Benefits - Barriers Scale [EBBS]: Perceived benefits of and barriers to exercise were assessed using the EBBS questionnaire. (Sechrist, Walker & Pender, 1987) It was divided into two scales. The benefit assessment scale consists of 29 claims and is divided into five subscales: quality of life, physical performance, psychological benefits, social interaction and health prevention. The barrier assessment scale consists of 14 claims and is divided into four subscales: the mid-range, lack of time, physical exertion and family discouragement. The established internal consistency (alpha) on the scale for assessing benefits of and obstacles to exercise in previous research ranged from 0.95 and 0.86. The reliability determined by the test-retest method was between 0.89 and 0.77. (Gyurcsik, et al, 2006) In this sample of respondents the internal consistency of the scale for assessing the benefits of exercise ranged from 0.91, and the scale for assessing the perceived barriers to exercise from 0.83. All claims from the scales for assessing perceived benefits of and obstacles to exercise were evaluated with a Likert score system from 1 to 4 points, where 4 equals "I completely agree"; 3 equals "I agree"; 2 signifies "I do not agree"; and 1 represents "I do not agree at all".

2.3. Data processing methods: For each respondent the standardized results of the scales, as well as each

subscale, for estimating the total benefits and total obstacles were calculated i.e. the total rating of the scales or subscales is the average value of the claims that entered each scale or subscale. The purpose of this adjustment was to provide direct comparisons between scales and subscales. Possible results ranged from 1 to 4. A score of 4 represented the highest perception of benefit or obstacle. In order to determine what are the greatest benefits or obstacles regarding exercise according to each student's perception several T - tests for dependent samples were applied in order to identify all the statistically significant differences between the subscales. Ten comparisons were used for subscales to assess the benefits while six comparisons for subscales were used for assessing obstacles. Bonferroni's method was used to correct critical p values i.e. $p < 0.005$ for benefit subscales and $p < 0.008$ for obstacle subscales by preserving alpha 5% to eliminate the possibility of type I errors due to the increased number of statistical testing. The pads were processed with a statistical package SPSS for Windows Version 26.0.

3. Results

The research findings indicate that the mathematical mean of perceived benefits ($M = 3.43$, $SD = 0.47$) is higher than the mean of perceived exercise barriers ($M = 3.43$, $SD = 0.47$), and there is a statistically significant difference between perceived benefits of and barriers to exercise ($t(473) = 30.90$, $p < 0.001$) in female respondents. Based on the calculated benefit the obstacle ratio, that is 1.51, it is a ratio greater than 1. Thus, it can be concluded that students perceive more benefits from exercise in terms of obstacles. (Table 1) Analyzing the subscales individually to assess the perceived benefits of exercise, as in table 1, it can be seen that the dominant benefit of exercise that students perceive is the benefit associated with improving physical performance ($M = 3.67$). This is followed by psychological benefits ($M = 3.66$), quality of life improvement ($M = 3.55$), health preservation ($M = 3.28$) and social interaction ($M = 2.98$). Statistically significant differences were found among most subscales in assessing perceived exercise benefits. Statistically significant differences were not found between subscales used for assessing the benefits associated with improving physical performance and psychological well-being. All the scales, except subscales for social interaction, showed mathematical means greater than 3. This was a "true" agreement that these subscales, consisting of multiple claims, were considered by students to be benefits of exercise.

Table 1. Differences in subscales for assessing perceived benefits and barriers to exercise by using mathematical means, standard deviations and levels of statistical significance of t-tests in female respondents.

			Sub-scale †				
	Mean	SD	1	2	3	4	5
Advantages - Benefits ($M = 3.43$, $SD = 0.47$)							
Physical performance	3.67	0.45	-	0.364	0.000	0.000	0.000
Psychological outlook	3.66	0.43		-	0.000	0.000	0.000
Quality of life	3.55	0.54			-	0.000	0.000
Preservation of health	3.28	0.66				-	0.000
Social interaction	2.98	0.76					-
Barriers ($M = 2.27$, $SD = 0.75$)							
Physical effort	2.40	0.86	-	0.034	0.001	0.000	-
The middle for exercise	2.34	0.74		-	0.401	0.000	-
Lack of time constraints	2.32	0.86			-	0.000	-
Family discouragement	2.04	1.02				-	-

From a review of Table 1 it can be seen that the biggest obstacle for students to exercise is physical exertion. This is followed by the environment for exercise, lack of time and discouragement from the family. Statistically significant differences were not found between the subscales of the mean for training or lack of time. The

mathematical means for all four subscales for assessing exercise barriers ranged between 2 to 2.5 which equate to the answers "agree" and "disagree". According to the EBBS scoring scale this can be interpreted as a neutral attitude of the respondents.

4. Discussion

In terms of purpose the items were summarized for each subscale individually. The research results indicate that the dominant reasons the female respondents perceived is associated with improved physical performance and psychological benefits i.e. better mental and psychological well-being. Improving the psychological benefits quality of life is a higher ranking benefit related to social interaction and health preservation. Hence, health preservation is a higher ranked benefit than social interaction. The discovery that the benefits associated with improving physical performance such as improving physical fitness, muscle strength, cardiovascular function, endurance, flexibility and physical appearance are some of the highest perceived benefits of exercise may not come as a surprise because of the importance of those abilities. Such attributes are constantly emphasized by a wide range of media channels. (Kgokong & Parker, 2020) Similarly, the dominant position of psychological benefits from exercise is consistent with research done by Biddle and Bailey in 1985. They found that respondents particularly valued the benefits associated with mental and psychological well-being resulting from exercise. Surprisingly, respondents chose the least perceived as health benefits. This indicated that the student population is unaware that exercise can help prevent illness and improve their health that is contrary to the health belief model. (Janz & Becker, 1984) All this can greatly influence a change of behavior in this population group. Therefore in the future, this population group should be introduced to the health benefits of exercise which would affect behavioral changes in a positive direction.

The perception of the respondents that they have less benefit from exercise related to the factors that improve quality of life and social interaction is contrary to previous research. Namely, previous research (Wankal, 1980) and motivational theories (Deci & Ryan, 1980) indicate that social issues are key motivations for an individual to continue to engage in physical activity. However, our sample is from a specific student population which differs from those populations that were researched in previous studies. Respondents at this age have a greater opportunity for socialization i.e. socializing and communication. These are an integral part of their university life. Such diverse opportunities for socialization can undermine any perceived importance of the social benefits that can result from exercise. The results are in line with research conducted on female students who did not have recommended physical activity by universities in the UK. They also perceived fewer benefits of exercise related to these factors. (Lovell et al, 2010)

The results of the research indicate that the respondents think that a lack of encouragement from the family is the obstacle that least prevents them from exercising. Although the results of the research indicate that a lack of an exercise environment is not a significant barrier to exercise is an encouraging fact indeed. Still the individual statement "exercise facilities are too far away" is an integral part of this subscale, and is ranked quite high. This is in line with the research of King et al in 1992. They found that young people find it difficult to exercise due to limited access to facilities. Furthermore, the results of this research negate traditional attitudes that women experience in a situation in which they feel ashamed or uncomfortable. (Gyurcsik et al, 2006; O'Neill & Reid, 1991) However, our results can only be generalized of the student population whom are usually confident in their social contexts, and have a greater opportunity for free access to exercise facilities and opportunities for physical activity.

Physical exertion was significantly the largest perceived barrier to exercise in the surveyed female student population. This is in line with some previous research. (Shaikh, Dandekar & Hatolkar 2020; Kgokong & Parker, 2020) The perception of this sample of female respondents that the biggest obstacle to exercise is that physical activity is tiring and hard work. This is a fact that is largely worrying. This can lead to a vicious circle. As more female students decrease their physical fitness the harder and harder it will become for them to engage in regular recommended physical activity. Physical inactivity will increase their perception that physical

exertion is an obstacle to exercise. This in turn will reduce their activity and their state of physical fitness. The perception of physical exertion as a major barrier to exercise can also be reflected as a cultural or social phenomenon. According to Ajzen and Madden's Theory of Planned Behavior (Ajzen & Madden, 1986) attitudes are influenced by social norms which then influence intentions and ultimately behavior. If the social norm is that you do not want to be physically active and do not enjoy the physiological accompaniment of physical activity i.e. increased heart rate, increased sweating and a feeling of activation then the individual's attitude towards physical activity may become more negative. It is accompanied by the effect of reduced exercise intent and ultimately affects behavior. In light of peer pressure, current trends and social contexts at university or in school students can become an effective environment for spreading negative propaganda or promoting risky behavior if they do not propagate sufficiently positive images of the health benefits of physical activity.

Based on the final results it can be concluded that the respondents who participated in this research perceived more benefit from exercise with much fewer obstacles. However, the perceived benefit/disability ratio of 1.51 female students may not be sufficient to motivate these respondents to be physically active. Initiatives for health education and physical activity at universities may be more effective if such efforts are aimed at educating non-practitioners in order to increase the benefit/obstacle ratio. This would stimulate them to maintain a physically active lifestyle that will influence an improvement of good health.

5. Conclusion

Based on the final results the following conclusions can be drawn.

Based on the calculated benefit/obstacle ratio that is 1.51, a ratio that is greater than 1, it can be concluded that female respondents perceive more benefits from exercise in terms of obstacles.

The predominant benefit of exercise that female respondents perceive is physical performance, followed by psychological benefits, improved quality of life, health preservation and social interaction. The biggest barrier to exercise that female respondents perceive is physical exertion, followed by the means of exercise, lack of time and lack of encouragement from the family.

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