

Physical Self Concept And Physical Activity Among University Students

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Abstract

Physical self-concept plays a central role in adolescence. In this phase, individuals experience significant physical, mental, and emotional changes that are connected to their physical activities. The purpose of the study was to examine differences of all physical self-concept components of university students based on their physical activity levels. The study involved 322 college students (92 male students, 230 female students) of a University in Indonesia. Physical self-concept was assessed by using the Physical Self-Description Questionnaire (PSDQ). To measure physical activity, the Short Version of the International Physical Activity Questionnaire was used. The data were analyzed by using one way ANOVA. The results show that there are significant differences in three physical self-concept components, including physically active component, sports competence component, and endurance component. The findings also found that the students with higher physical activity level got higher scores in those three components. While there are no significant differences in health, coordination, body fat, appearance, global physical, strength, flexibility, and global self-esteem components.

Keywords: Physical Activity, Physical Self-Concept, University Students

Introduction

The decrease of movement behaviour commonly occurs to university students since there is no physical education subject, except for students in physical education major. The physical activity study of Young, Sturts, & Ross (2015) showed that the majority of the respondents did not participate in the regular physical activity. This condition should be a warning since this period should be a productive period for the students to do various activities and to fulfil task demands. This condition is influenced by the lack of knowledge of health-related fitness (Sultoni, Jajat, & Fitri, 2017) and other barriers to do physical activity (Jajat, Sultoni, & Suherman, 2017). This condition will contribute to the number of obesity cases (Weiss, Dziura, & et al., 2004) that would have impacts on the increase of non-infectious diseases as the leading cause of death diseases (World Health Organization, 2015). Nowadays, Indonesia has become one of six countries with the prevalence of non-infectious diseases (Shaw, Sicree, & Zimmet, 2010). Therefore, there is a need to address the low awareness of physical activity through the cultivation of active lifestyle to maintain physical fitness.

Participation in physical activity can improve psychological health and help preventing mental health disorders. Mental health is not only related to mental disorders but also to psychological well-being conditions where individuals are aware of their own abilities and potentials (Babic et al., 2014). Furthermore, Babic et al. (.) explain that self-concepts generally cover academic and non-academic sub-domains. Academic self-concept consists of self-aspect of specific subjects (such as history, English, and mathematics), while non-academic sub-domains are divided into emotional, social, and physical self-concepts. Physical self-concept is separated into physical abilities and the appearance that someone feels.

The physical self-concept domain refers to all individual views about the physical qualities they have (Gehris, Kress, & Swalm, 2010). Physical self-concept can be a predictor of the motivation tendency of one's physical activity participation (Hagger, Biddle, & John Wang, 2005). Furthermore,

Hagger et al. () suggest that the physical self-concept component has a relationship with physical activity and sports-related behaviors. A person's view of the concept of himself physically will determine their participation in physical activities and sports, in other words, someone who has a positive physical self-concept will be more physically active and those who involve in physical activity will have a high physical self-concept (Arazi & Hosseini, 2013; Babic et al., 2014). It concludes that physical self-concept is one of the important factors of a person's involvement in physically active lifestyle behaviors (Amesberger, Finkenzeller, Würth, & Müller, 2011).

Babic et al. () further argue that there is a consistent significant relationship between physical activity and physical self-concept and various sub-domains in children and adolescents. The process of the forming of physical self-concepts is inherent in the adolescence period (Balsalobre, Sánchez, & Suárez, 2014). This process could influence one's involvement in physical activity and exercise and affect their physical and health aspects at the same time (Balsalobre, Sánchez, & Suárez, 2014).

A person's involvement in physical activity will affect their physical self-concept. Meanwhile, physical self-concept that is owned by someone will influence their involvement in physical activity. When a person's views about their physical appearance and abilities are positive, their tendency to do physical activity will be higher. For that reason, physical self-concept has an important role to increase active participation in physical activity.

Method

The study was conducted under correlational design. During the study, 322 university students (92 male students; 230 female students) involved as the participants of the study. The students were in the 2nd year when the research was carried out. To collect the data related to the students' daily physical activities, the participants were asked to fill out the short form of Physical Activity Questions (IPAQ-SF) questionnaire constructed by Craig et al. (2003). Meanwhile, to measure the physical self-concept of the students, the researchers used Physical Self-Description Short Version (PSDQ-S) questionnaire that consists of 11 physical self-concept indicators, including health, coordination, physically active, body fat, sport competence, appearance, global physical, strength, flexibility, endurance, and global self-esteem. The obtained data were analyzed by using one way ANOVA.

Result and Discussion

The results of the research present the relationship between the eleven indicators of physical self-concept, including health, coordination, physically active, body fat, sport competence, appearance, global physical, strength, flexibility, endurance, and global self-esteem, and student's physical activity. The results of the data analysis are presented in Table 1.

Table 1. The Analysis of Physical Self-Concept and Physical Activity Relationship

No	Physical Self-Concept	Physical Activity Level	Mean + Standard Deviation	F	P. Value
1.	Health	High	4.5063+0.75	0.769	0.465
		Moderate	4.3692+0.95		
		Low	4.4782+0.90		
2.	Coordination	High	3.4228+0.82	1.114	0.33
		Moderate	3.3590+0.89		
		Low	3.2276+0.87		
3.	Physically active	High	3.2700+1.24	9.734	0
		Moderate	2.9850+1.11		
		Low	2.5249+0.95		
4.	Body fat	High	4.0253+1.60	0.998	0.37
		Moderate	3.7500+1.50		
		Low	3.7280+1.58		

Table 1. Cont

5.	Sport Competence	High	3.3502+1.09	7.393	0.001
		Moderate	3.0278+1.11		
		Low	2.7011+1.01		
6.	Appearance	High	3.6329+0.96	1.233	0.293
		Moderate	3.6368+0.84		
		Low	3.4521+1.04		
7.	Global physical	High	3.9662+1.14	0.441	0.644
		Moderate	3.8312+1.00		
		Low	3.9119+1.15		
8.	Strength	High	3.8143+1.07	2.639	0.073
		Moderate	3.6175+0.98		
		Low	3.4406+1.12		
9.	Flexibility	High	3.2194+1.06	2.688	0.07
		Moderate	2.9444+1.07		
		Low	2.8544+1.04		
10.	Endurance	High	3.0127+1.05	9.6	0
		Moderate	2.7073+1.09		
		Low	2.3103+0.91		
11.	Global self-esteem	High	4.0152+0.85	1.887	0.153
		Moderate	4.0782+0.72		
		Low	3.8759+0.80		

Table 1 shows that the mean value of the high level of physical activity at physically active indicator is 3.2700, the mean value of the moderate level of physical activity at physically active indicator is 2.9850, while the mean value of the low level of physical activity at physically active indicator is 2.5249. In sport competence indicator, the mean value of the high level of physical activity is 3.3502, the mean value of the moderate level is 3.0278, and the mean value of the low level is 2.7011. In endurance indicator, the mean value of the high level of physical activity is 3.0127, the mean value of the moderate level of physical activity is 2.7073, and the mean value of the low level of physical activity is 2.3103. Moreover, the *P* value of the physically active indicator is 0, the *P* value of the sport competence indicator is 0.001, and the *P* value of the endurance is 0. Since the *P* values of the physically active, sport competence, and endurance are lower than 0.005, it concludes that there are significant differences in the physically active, sport competence, and endurance indicators related to the students' physical activity levels. However, in other aspects of the physical self-concept indicators, there are no differences in each level of physical activity found.

The result of this study is slightly different with the research conducted by Balsalobre et al (2014). The research conducted by Balsalobre et al (2014) was aimed at ensuring that there is a direct relationship between physical fitness and other factors that determine one's physical self-concept. The result of this study shows the relationship between endurance and strength as the components of physical fitness and factors determining the physical self-concept of the participants. The similar thing occurs to other factors determining physical self-concept, except for the flexibility factor. It indicates that adolescents who gained higher scores at physical condition factors such as endurance and strength would have higher scores of the endurance and strength indicators of the component determining physical self-concept. However, the similar case did not occur on the flexibility component. It concludes that the adolescents who gained higher scores at flexibility component did not gain higher scores at the flexibility component of the physical self-concept.

The result of the study also found different result with the study conducted by Gehris et al (2011). The aim of Gehris et al (2011) study was to find out the effect of adventure education curriculum on the physical self-concept. The result shows that the students felt that the seven components of physical

self-concept, including body fat, coordination, endurance/fitness, flexibility, physical activity, sports competence, and strength, were relevant to adventure-physical education. Meanwhile, two other components, including appearance and health, were not.

The different result of the study might be caused by the different characteristics of the participants. In this research, the participants were the second year university students who joined in the physical education courses as the compulsory course. The age of the participants was around 17-18 year old. Meanwhile, in the research conducted by Balsalobre et al (2014), the participants of the study were adolescents aged 14-15 years, while at the study conducted by Gehris et al (2011), the participants were the tenth grade students. The different age of the participants could be the factors causing differences in the result of the study.

Another research related to physical self-concept and physical activity was the research conducted by Arazi & Hosseini (2013). The purpose of the study was to compare the physical self-concept of the students majoring physical education and non-physical education students. The result of the study found that the physical education students gained higher scores compared with the non-physical education students in the eight components, including health, coordination, physical activity, body fat, global physical, sports competence, global physical self-concept, and global self-esteem. Moreover, the result of the study found the physical self-concept of the non-physical education female students was lower than the score of the male physical education students. The results of the study may reflect that male physical major education students, who usually spend more time on physical activity and sport training, have better fitness and skill oriented self concept than their counterparts.

The result of this study is also relevant to some results of other previous studies related to the relationship between physical self-concept and physical activity. The research conducted by Babic et al (2014), with the aim to identify the physical self-concept and physical activity, used data meta-analysis of 64 research related to physical self-concept and physical activity. The result of the study of Babic et al (2014) shows the consistent relationship between physical activity and physical self-concept of the research they studied. Age and gender become key moderator variables from the relationship of physical activity and physical self-concept. The research of Babic et al (2014) supports the view that physical self-concept has a relationship with physical activity; and that physical self-concept is an important key factor in the physical activity intervention program context from the adult to elderly.

The result of this study and other physical self-concept research conclude that choosing participants with specific criteria is necessary. Therefore, choosing the participants specifically, such as based on their major and their involvement in sport organization in the university, is important for the further research. Moreover, we also recommend to divide the participant according to their gender. This recommendation is due to the result of one of the studies that found that gender is one of the key moderators of the physical activity and physical self-concept.

Conclusions

The study found that there are significant differences in the three levels of physical activity (high, moderate, and low) in three physical self-concept indicators, including in physically active indicator, sports competence indicator, and endurance indicator. The students with higher physical activity level showed higher scores in those three components. In addition, there are no significant differences in health, coordination, body fat, appearance, global physical, strength, flexibility, and global self-esteem. It indicates that a person's who thinks that he is an active person will have influence on their daily physical activity. Meanwhile, a person who thinks that he has competences in the field of sports and has a good endurance will have an impact on his daily physical activities. However, the similar case does not happen to other indicators where the significant relationship between other indicators of the physical self-concept with the three levels of physical activity (high, moderate, and low) was not found.

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