

# The Role of Social Self-Efficacy on Physical Activity: A Cross-Cultural Comparison

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## Abstract

The purpose of this cross-cultural study exposes stages of change for exercise behavior (SCEB) in relation to perceived social self-efficacy (PSSE) between Turkey and England sport sciences students. The study group of the research consists of 168 (66 women and 102 men) students from Turkey and 217 (112 women and 105 men) students from England who completed a questionnaire package that included SCEB scale and The PSSE Scale. Descriptive statistics, t test, ANOVA, Chi-Square test were used as a statistical analysis. Results showed that the effect of PSSE on SCEB was significant between two counties and sport science students in Turkey have more PSSE than sport science students in England. Furthermore, it was found significant differences for the SCEB between Turkey and England and that sport science students living in England are significantly more physically active than sport science students living in Turkey. This result could explain that England has more sport neighborhood and facilities than Turkey.

**Keywords:** social self-efficacy, exercise behavior, physical activity, exercise, sport science, students

## 1. Introduction

Self-efficacy, a key part of social cognitive theory (Bandura, 1997), is one of the strongest psychosocial determinants of physical activity and exercise (Netz & Raviv, 2004; Rogers, et al., 2005). The literature includes a great volume of research on psychosocial domains and self-efficacy (Alemdag & et al 2016a; Alemdag, S. & et al. 2016; Ozkara & et al. 2016; Alemdag, C. & et al. 2016b). Previous research has demonstrated that higher and lower levels of social self-efficacy are associated with shyness, depression instrumentality, expressiveness (Hermann & Betz, 2004), emotional well-being (Bandura et al. 1996; Fabio, 2008), loneliness, social dissatisfaction (Galanaki & Kalantzi, 1999), anxiety (Al-Darmaki, 2004; Xu, x.,et al. 2017), motivation (Bedel, 2016; Aydın, 2016) and stress (Matsushima & Shiom, 2003; Moeini, 2008). As social values constantly change and evolve, individuals feel constant concern about their economic status, academic achievements and social relations. In every society, individuals act according to their feelings, thoughts, and age; common problems such as emotional enthusiasm, easily established and broken relationships, and the desire to be dominant have today risen to prominence (Binbaşıoğlu, 1982; Başaran, 1998; Yörükoğlu, 1998). Researchers have focused on psychosocial work in order to minimize such problems in the society and to provide social change.

Self-efficacy, often used in social studies, refers to individuals' ability to organize their own perceptions and beliefs and to achieve the desired outcome and it includes individuals' perceived success, failure, and feedback (Bandura, 1997; Schunk & Pajares, 2004). Research on self-efficacy has been examined from social, emotional and academic perspectives. This research focuses on social self-efficacy and participation in physical activity. social self-efficacy refers to an individual's beliefs about his or her abilities to establish social relations, cooperate with others, and manage conflicts among people (Bandura et al., 1999). Giunta (2010) notes that establishing positive relationships with others requires various social problem-solving skills. Becoming a successful individual in social life facilitates establishing good communication in everyday life. Additionally, the development of social skills contributes to the achievement of goals and a better evaluation of opportunities (Öztürk & Şahin, 2007). In this regard, research on self-efficacy and physical activity has remarkably grown in recent years (Martin & Kulinna, 2005; Motl, 2007; Gencay, 2009; Temple, 2009; Iskender & Akin, 2010; Luszczynska et al., 2011; Cowan et al., 2012; Çetinkalp, 2012; Vurgun, 2015; XiaoXia, et al., 2016; Alemdag, 2018). Participation in physical activity brings people together and provides personal identity, social identity, and a sense of group membership; it also facilitates communication between people and communities without race, gender, culture and age discrimination (Yıldıran & Yetim, 1996). Participation in physical activity has positive effects on self-respect (Chen et al., 2012; Joseph et al., 2014; Yiğitler, 2014), psychological well-being

(Edwards, 2006; Garcia et al., 2012; Verner et al., 2017; Wiese et al., 2018), physical and mental health (Cho & Cho, 2011; Park et al., 2017; Ostovarfar et al., 2018; Way et al., 2018); however, the number of people who do not participate in physical activity is quite high worldwide (World Health Organization, 2004). For example, Bauman (2009) collected data from about 53 thousand people across 20 countries and reported that New Zealand, Czech Republic, the USA, Canada and Australia are the countries where participation in physical activity is most prevalent, while the levels of physical activity are remarkably quite low in the remaining countries.

There are various scales measuring participation in physical activity (Craig et al., 2003; Wareham et al., 2003; Cleland et al., 2014). The stages of change for exercise behavior questionnaire is widely used and research results have shown that men have higher levels of participation in physical activity than women (Juniper et al., 2004; Prapavessis et al., 2004; Cengiz, 2007; Kanning, 2010; Langdon et al., 2017). Research on university students has reported that most university students are at pre-contemplation, contemplation and preparation stages, namely passive stages, of change for exercise behavior (Wakui et al., 2002; Cardinal et al., 2004; Juniper et al., 2004; Keating et al., 2005b; Cengiz, 2007). Individual or collective participation in physical activity has positive effects on social relations and individuals' self-development. A literature review indicated that there is a limited volume of cross-cultural research on participation in physical activity and social self-efficacy. Thus, research investigating participation in physical activity and social self-efficacy of sports science students studying in Turkey and the UK seems to be important to fill the gap in the literature.

### 1.1 Purpose of Research

The purpose of this cross-cultural research is to analyze the stages of change for exercise behavior (SCEB) and perceived social self-efficacy (PSSE) of sports science students studying in Turkey and the UK and to investigate whether social self-efficacy has an effect on exercise behavior.

## 2. Method

**Participants:** Participants were 168 (66 women and 102 men) sport sciences students from Turkey and 217 (112 women and 105 men) sport sciences students from England who completed a questionnaire package that included The Stages of Change for Exercise Behavior scale (SCEB) and The Perceived Social Self-Efficacy Scale (PSSE) for the 2015-2016 academic year.

**Materials:** Perceived Social self-efficacy Scale (PSSE); Smith and Betz (2000) define social self-efficacy as "an individual's confidence in his or her ability to engage in the social international task necessary to initiate and maintain interpersonal relationship. The scale of perceived social self-efficacy (PSSE) consists of 25 rationally derived item that measure the level of confidence in a variety of social situations.

**Stages of Change for Exercise Behavior Scale (SCEB);** Students' stages of change for exercise behavior were assessed using a measure with five stages (Marcus, et al., 1992): These stages are pre contemplation, contemplation, preparation, action and maintenance. The participants were required to select only one stage that best described their current exercise pattern. The participants whose responses classified them as being in the action and maintenance stages also reported the greatest weekly participation in physical activity. Those classified being in the Pre-contemplation and Contemplation stages were "non-exercisers."

**Procedure and Statistical Analysis:** This research used questionnaires as data collection method. The questionnaires were distributed after obtaining the necessary permit from universities and consent form from students. The participation in the survey was voluntary. Descriptive statistics, t test, one-way ANOVA, Chi-Square test were used as an statistical analysis.

## 3. Result

The sample of the research consist of totally 385 sport sciences students. 168 of them from Turkey and 217 from England. In Turkey, 66 (39.2%) women and 102 (60.8%) man and in England, 112 (51.6%) women and 105 (48.4%) men who accepted the questionnaires.

Table 1. Chi-Square Test for The Stages of Change in Exercise Behavior Between Turkey and England

SCEB	TR (n / %)	ENG (n / %)
Passive	38 (22.6)	3 (1.4)
Preparation	36 (21.4)	11 (5)
Active	94 (55.9)	203 (93.6)
Total	168 (100)	217(100)

$$\chi^2 = 78.21, df=2, p=.00$$

Presented in Table 1, sport sciences students from Turkey and England differ in the stages of change in exercise

behavior. In Turkey, the distribution of the sample consisted of 168 persons and 38 (22.6%) in the passive level, 36 (21.4%) in preparation, 94 (55.9%) in active level. In contrast, in England the distribution of the sample consisted of 217 persons and 3 (1.4%) in the passive level, 11 (5%) in preparation and 203 (93.6%) in active level. The result show significant differences between the stages of change in exercise behavior of Turkish and English sport science students ( $X^2(2) = 78.21, p < .001$ )

Table 2. t-Test results comparing Turkey and England on PSSE

	Country	n	Mean	SD	t	df	p
PSSE	TR	168	3.84	0.6	8.58	383	.00
	ENG	217	3.34	0.5			

Table 2 shows that an independent sample t-test was conducted to compare students' Perceived Social Self-Efficacy (PSSE) between Turkey and England. As we see from Table 2, there was a significant difference in the scores for PSSE in Turkey ( $M=3.84, SD =0.6$ ) and England ( $M=3.34, SD=0.5$ ) conditions;  $t(385) = 8.58, p = .00$ . These results suggest that Turkish sport science students have more PSSE than English sport science students.

Table 3a. Means and standard deviations on the measure of perceived social self-efficacy as a function of stages of change for exercise behavior among sports science students

SCEB	n	Perceived social self-efficacy	
		M	SD
Passive	41	3.70	0.63
Preparation	47	3.69	0.63
Active	297	3.51	0.60

Analysis of variance showed that the effect of *perceived social self-efficacy on stages of change for exercise behavior* was significant  $F(2, 382) = 3.14, p < .05$ . In other words, the overall perceived social self-efficacy of sports science students varies according to the stages of change in exercise behaviors. According to the results of the Tukey HSD test conducted to find the difference between the perceived social self-efficacy of the learners and related exercise behaviour change step of this difference, the social self-efficacy of students in the passive and preparatory stages of exercise behavior ( $M= 3.7, M= 3.69$ ) is higher than social self-efficacy ( $M = 3.51$ ) of students in the active stages of exercise behavior ( $M = 3.51$ ).

Table 3b. One-way analysis of variance of perceived social self-efficacy by stages of change for exercise behavior

	df	SS	MS	F	p
Between Groups	2	2.36	1.183	14.044	
Within Groups	382	143.400	0.37		
Total	384	145.77			

\* $p < .05$ .

#### 4. Discussion

This cross-cultural research aimed to analyze the stages of change for exercise behavior (SCEB) and perceived social self-efficacy (PSSE) of sports science students studying in Turkey and the UK and to investigate whether social self-efficacy has an effect on exercise behavior. Given the lack in the literature of cross-cultural research on stages of change for exercise behavior and perceived social self-efficacy, this research designed to involve sports science students from Turkey and the UK is of importance in contributing to the literature. For the purpose of the research, SCEB- and PSSE-related data were collected from sports science students in Turkey and the UK and analyzed. The analysis results indicated a significant difference between exercise behaviors and perceived social self-efficacy of sports science students in Turkey and the UK. This result is consistent with the results of previous research on participation in physical activity and self-efficacy (Alemdag, 2013; Vurgun, 2015; Alemdag, 2017; Allami et al., 2017; Briki, 2018; Ciciurkaite et al., 2018; Wickman et al., 2018). This situation indicates that there is a valid structure between participation in physical activity and self-efficacy in national, international, and cross-cultural research.

According to the research results, there was a significant difference between exercise behaviors of sports science students studying in Turkey and the UK. English sport science students involved in this research tended to be more physically active than their Turkish counterparts. This result seems to stem from the abundance of areas suitable for sports culture and exercise in the UK. This result is consistent with Alemdag's (2017) research. Santos et al. (2017) surveyed Mozambican and Portuguese young people and found that Mozambicans are less involved in physical activity than the Portuguese. They associated this result with the undesirable effect of urbanization in developing countries. Arvidsson et al. (2014) reported that Iraqi young people are less sufficiently physically active

compared to the Swedes and the Iraqis also spend less time in physical activity.

Considering the data on perceived social self-efficacy, there was also a significant difference between sports science students studying in two countries. Accordingly, sports science students in Turkey had higher perceived social self-efficacy than those in the UK. Alemdağ et al. (2017) investigated Turkish and English university students' participation in physical activity and social self-efficacy and found that students' perceived social self-efficacy was significantly different. These results can be explained by the fact that Turkey is located in the temperate climate zone and Turkish people are often more social and friendly.

## 5. Conclusion

Promoting physical activity has become a public priority in developed countries worldwide. They needed to support the development of effective strategies and interventions that promote an active lifestyle and prevent a sedentary one. Turkey should also take necessary measures for increasing physical activity participation rates, and people should be encouraged. As a conclusion, conducting studies to increase PSSE may help to foster greater rates of physical activity participation.

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