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Relationship Between Achievement Goal Orientation and Physical Self-perception among Students Attending Physical Education Teaching

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Abstract: The purpose of this study is to determine the relationships between achievement goal orientations and physical self-perception levels of the students attending physical education teaching program. Participants are 510 (234 female and 276 male) students ranging in ages from 18 to 29 (M = 21.43 and SD = 2.36). Multiple regression analyses were used to analyze the data. When the entire sample was considered, correlation analyses indicated that four goal orientations are related with physical self-perception levels. Sport competence appeared to be the variable, which provided significant predictors to all goal orientation subscales. It was also found that while the Self-esteem variable provided significant predictors to Learning Approach, Performance Approach and Performance Avoidance goals, Global Physical was the variable, which provided significant predictors only to Learning Approach goal.

Key words: Goal orientations · Physical self-perception · Physical education

INTRODUCTION

Achievement, goal orientations and associated variables have been the subject of numerous studies in different areas and many researchers have been engaged in theoretical and empirical research on this subject. Therefore, the development process of Achievement Goal Theory has grown rapidly in recent years and many theorists have contributed to the improvement of this theory [1-6]. In the first studies conducted in this area, Achievement goals were divided into two main categories as learning (mastery) and performance (ego). In some of these studies, learning (mastery) orientation was named as task goal orientation, whereas, performance goal orientation was called the ego orientation. These goal orientations reflects the success and development competencies [3,7-9]. According to another view, achievement goal orientations deal with the criteria and standards, which the individual uses to evaluate his/her beliefs about success and performance [10]. According to Dweck and Leggett's [6] definition, the achievement goal orientation refers to the viewpoint of the individual, which determines the cognitive, emotional and behavioral reactions in his/her learning environment, how s/he perceives his/her competency in response to those events and reveals a picture of the different cognitive, emotional and behavioral consequences which explain that response. According to another evaluation in line with the same classification, the individual focuses on his/her own competency, taking himself/herself as reference while dealing with mastery goals, whereas, s/he takes the opponent's or others' skills as reference when s/he is concerned with his/her performance goals. While, mastery / task / learning goals focus on learning and mastery of the task, performance goals focus on performing an action better than other people [11].

Mastery / task / learning goal orientation requires the desire of the individual about learning, understanding and having comprehensive knowledge of the subject matter. Most studies show that students who have learning goal orientation have also motivational gains and this orientation was found to be positively correlated with many different variables such as the productive use of cognitive strategies, perceived ability, linking the success of difficult situations to personal effort, being resistant and determined in case of difficulties compatible with one another [3,6,12-15]. As a result of their study, Jagacinski and Stricklan [16] state that, mastery/task/learning-oriented individuals are highly focused on learning, try to access the information that will enable them to perform a task in the best way. In addition, these individuals were reported to prefer their own individual criteria instead of

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the criteria accepted by the social environment in order to evaluate their success. In another study with similar results, it was concluded that the students who had learning goal orientations determined their proficiency levels by themselves, focused on their own development and were not interested in how others perform while dealing with parallel learning tasks [17].

On the other hand, related to the performance goal orientation, the latter one of the two basic classifications, the individuals were reported to attach importance to social comparison more than mastering in a subject or achieving a learning goal. According to this theory of social comparison the performance-oriented individuals care more about social comparison, when they are involved in a task, they consider the people working in that field as reference and try to perform their task better. These people avoid to look inept and incapable and try to draw an image which is more intelligent and talented consistently [18], Morris *et al.* [11].

Performance-oriented individuals are more concerned with normative performance information and the information about social comparison is very important for these students.Because these individuals cannot decide, whether they are successful or not, without making comparison with other people, related to their ability to perform a task or practicing a skill [16.19]. In the studies where performance goal orientation was examined, this orientation was reported not to be associated with the variables about academic success [6] and deep cognitive strategies [20].

The studies that were conducted on performance goal orientation revealed some negative and some positive relationships between performance goal orientation and the use of learning strategies, resulting in successful and meaningful learning [21-24]. In another study, the performance goal-oriented individuals were reported not to be able to give the required effort for learning and use superficial cognitive learning strategies, to have negative affectivity, to avoid getting help and consider failure as ineptness [14]. According to Cetin *et al.* [25], the performance-oriented individuals often use passive coping strategies, like to be praised and take care to avoid negative criticism and judgments.

Nevertheless, in recent studies the evaluation of competence is also included in the model as well as its definition and this model which was divided into two, has been further expanded into a model of 2x2 [5,26]. Valence dimension suggests approach and avoidance motivation. In other words, the goals are grounded to get a positive result, or to avoid negative results. Standard definition of the qualification process is based on three qualification reviews. These are classified as the absolute standard based on personality, personal standard or normative standard. In other words, they are classified as "task-based standard, whatever the task requires", "the development standard related to performance and skill" "doing better than others standard", that is, the standard which takes others as reference. However, because of the theoretical and conceptual similarity between the absolute and personal competence, these standards are taken together and 2x2 models are created [5,11,26].

As a result of the inclusion of two dimensions of competence, 2x2 target model have been formed. This model consists of, mastery (learning)-approach, mastery (learning)-avoidance, performance-approach, performance-avoidance goals [5,26]. Mastery (learning)-approach goal has to focus on how to perform a task or skill or to do better, such as ensuring the development of a sports technique. Mastery (learning) avoidance goal is based on to avoid showing your incompetence. Performance-approach goal focuses on achieving normative competence, whereas, performance-avoidance goal focuses on the inadequacy of the normative, such as to avoid performing a technique worse than the opponent [11]. In sum, approach dimensions should focus on to approach success while avoidance dimension should focus on to avoid failure. Mastery (learning) goals are goals or tasks of self-reference, whereas the goals, performance goals are the goals that reference the others [10].

The concept of physical self-perception is discussed in the multi-faceted structure of general self-perception and it is considered to be an important element of self-confidence and general self-perception and to be the most important dimension of multi-faceted and hierarchical structure of self-perception, which is affected by joining the exercise. Physical self-perception concept has started to be dealt with more than one sub-dimensions and this situation has become prominent in evaluation inventories [27]. In the "self-description inventory" which was developed by Marsh *et al.* [28], two sub-dimensions, under the name of "physical ability" and "view", attracted the attention. Later, Fox *et al.* [29] developed this model further and called it "the hierarchical model of physical detection".

Following this modeling, a study was conducted by Marsh *et al.* [28] and a "self-inventory of the physical description (physical-description questionnaire, PSDQ)" which also emphasized the hierarchical and multi-faceted structure of physical self-perception was brought to

literature by Marsh *et al.* and in the following studies [30-32] its reliability and validity were proven. PSDQ which was first developed by Marsh *et al.*[28] includes nine sub-dimensions such as strength, body fat, physical activity, endurance, physical fitness, athletic ability, coordination, flexibility, health and appearance. As was developed by Marsh, the validity and reliability studies of this questionnaire were carried out on Turkish population as well as on many different societies [33].

Method

Participants: Participants of this study were comprised of 510 students (234 female and 276 male) attending physical education teaching program at School of Physical Education and Sports in Turkey in the 2009-2010 academic years. Their ages ranged from 18 to 29 years, with a mean age of 21.43 ± 2.36.

Measures

2x2 Achievement Goal Orientations Scale: The 2x2 AGQ, which was developed by Akın[40] was based on Achievement goal theory. The 2x2 AGQ-S has 4 subscales: Learning approach goal orientation, learning avoidance goal orientation, performance approach goal orientation and performance avoidance goal orientation. Scale is a 26-item Likert type scale showing the agreement on each item. Each of the 26 AGQ-S items describes different ways that participants can strive for competence or avoid incompetence. Participants are asked to indicate on a scale ranging from 1 (strongly disagree) to 5 (strongly agree) how much they agree or disagree with each statement.

Physical Self-description Questionnaire: The Physical Self-description Questionnaire [28] was distributed to the participants. This questionnaire has 70 items to assess nine physical self-concept components: Health (8 items), coordination (6 items), physical activity (6 items), body fat (6 items), sport competence (6 items), appearance (6 items), strength (6 items), flexibility (6 items) and endurance (6 items) and two global self-concept factors: Global physical (6 items) and self-esteem (8 items). In this study, only sport competence, global physical and self-esteem dimensions of the Physical Self-description Questionnaire were used. The questionnaire is based on the framework of the Self-description Questionnaire (Marsh, 1988). Responders answered all items on a 6-point Likert scale (1 = totally disagree - 6 = totally agree). Reliability and Validity study of this questionnaire in the Turkish population were made by Ascı *et al.* [33]

Procedures and Data Collection: The Turkish version of the scales and a form asking information about demographic variables were used to collect the data. Participants were briefly given information about the research project and were encouraged to answer the questionnaire honestly. Completion of all forms was expected to take approximately 10-15 minutes.

Data Analysis: In the analysis of the data obtained from the research, multiple regressions analysis with stepwise was conducted to examine the relationships between achievement goal orientations and sport competence, global physical and self-esteem.

RESULTS

Descriptive Statistics: Descriptive statistics, including means and standard deviations are reported in Table 1. These descriptive statistics for the entire sample revealed high levels of learning approach orientation, sport competence, global physical and self-esteem for the sample (respectively, M = 3.96, M= 4.62, M= 5.08 and M= 4.69). Performance avoidance orientation and performance approach orientation values were found to be low in this sample (M = 2.48 for performance avoidance orientation and M = 2.81 for Performance approach orientation). Learning avoidance orientation (M=3.15) was moderate level.

Multiple Regression Analyses: To determine whether the different categories of achievement goal orientation were best predicted by self-esteem, sport competence and global physical or not, the multiple regression analyses with stepwise method were conducted. Four independent variables (learning approach orientation, learning avoidance orientation, performance approach orientation and performance avoidance orientation) were entered into the regression analysis. Results are summarized in Table 2.

Table 1: Descriptive Statistics for The Variables of Scale.

Variable	M	SD
Learning approach orientation	3.96	.62
Learning avoidance orientation	3.15	.74
Performance approach orientation	2.81	.81
Performance avoidance orientation	2.48	.73
Sport competence	4.62	.79
Global physical	5.08	.89
Self-esteem	4.69	.77

Table 2: Summary of Multiple Regression Analysis for Students Achievement Goal Orientations (N=510)

Variable	b	SE (b)	t-value	R^2 Change	β
Learning approach orientation					
Constant	2.56	.16	16.15		
Self esteem	.29	.03	8.90		.37***
Constant	2.26	.17	13.06		
Self esteem	.21	.04	5.53		.26***
Global Physical	.14	.03	4.14		.19***
Constant	2.07	.18	11.35		
Self esteem	.18	.04	4.49	.14	.22***
Global Physical	.10	.04	2.96	.03	.15**
Sport competence	.11	.04	2.92	.01	.14**
Learning avoidance orientation					
Constant	2.55	.19	13.27		
Sport competence	.13	.04	3.14	.02	.14**
Performance approach orientation					
Constant	2.08	.21	9.90		
Sport competence	.16	.05	3.53		16***
Constant	2.51	.25	10.15		
Sport competence	.24	.05	4.67	.02	.23***
Self esteem	-.17	.05	-3.23	.02	-.16***
Performance avoidance orientation					
Constant	3.38	.19	17.28		
Self esteem	-.19	.04	-4.66		-.20***
Constant	3.13	.22	14.14		
Self esteem	-.24	.05	-5.25	.04	-.26***
Sport competence	.11	.05	2.39	.01	.12*

Note. *p<.05, **p<.01, ***p<.001

If we consider learning approach orientation, we observed that self-esteem, global physical and sport competence emerged as significant positive predictors ($F (3, 506) = 36.32$, $p < .001$), explaining 18 % of the variance. If we consider Learning avoidance orientation, sport competence appeared as a significant predictor ($F (1, 508) = 9.85$, $p < .01$), accounting for 2 % of the variance. It was found that self-esteem and global physical were unrelated to learning avoidance orientation. Performance approach orientation was significantly predicted by sport competence and self-esteem ($F (2, 507) = 11.56$, $p < .001$), which explained 4 % of variance. Global physical were unrelated to performance approach orientation. In term of performance avoidance orientation, self-esteem and sport competence appeared as significant positive predictors ($F (2, 507) = 13.81$, $p < .001$), accounting for 5 % of the variance, whereas global physical was unrelated. However, it should be noted that the variance explained in these regressions was relatively small.

DISCUSSION

When the studies in the literature are considered, we can see that 2x2 model is associated with different psychological and behavioral outcomes both in education and in physical activity. For example, in a study in the field of education, mastery (learning) - approach goal were seen to predict the increase in quality of the strategies of psychology department students whereas, the performance approach goals predicted the examination performance. Furthermore, it also urged that both of these working strategies were predicted as disorganized test anxiety [5]. In a longitudinal study of young swimmers, the learning-avoidance goals and the rate of change in extrinsic motivation and amotivational syndrome were found to be positively correlated [35].

Since approach-avoidance goals contain many important results about this subject, to examine the variables which may be responsible for the identification of these targets is important to determine the potential of its predecessors in sport. In the studies where the fear of failure is tested to be the predecessor of approach-avoidance motivation, a positive correlation was found between the fear of failure and performance approach goal and performance-avoidance goal and mastery (learning) goal. The same positive correlation wasn't found between the fear of failure and mastery (learning) approach goals [34,35,36]. Until today, in sports, only in one study the predecessors of approach-avoidance goals such as social-environmental variables were investigated.

This study examined the perceptions of athletes and coaches and it was found that when the coaches focused on approach-avoidance goals, the athletes tend to avoid more [34].

Our study which was conducted to find out the relation between the achievement goal orientations and physical self-perceptions of the students of Physical Education and Sports Department, the relationship between performance approach and performance avoidance goal orientation in this sample group was found to be low, whereas it was moderate in case of learning avoidance orientation. In another study, conducted in Physical Education, the individuals who have high achievement goals (highest level in four dimensions) or mastery (learning) goals were observed to be more motivated than others. These high-profile students were found be more free, more pleasant and more perseverant in the external environment while doing physical education activities when compared with students who have low goal levels and easily get bored [37].

According to the multiple-regression analysis test results in order to predict achievement goal orientation of self-esteem, sports competence and the global physical self, self esteem and sports competence were positive predictors. ($F (3, 506) = 36.32$, $p <.001$), 18% of the total variance explained). In the study of Newton *et al.* [38], the performance orientation of the "physical self-perceptions" is reported to be a positive predictor. This aspect is similar to our study.

Sporty performance avoidance orientation is a positive predictor of competence and self-esteem is a global physical self, but is not related to performance avoidance orientation. ($F (2, 507) = 13.81$, $p <.001$). While sports competence is a predictor of learning avoidance goal, self-esteem and global orientation of avoidance learning physical self was not associated with avoidance orientation. ($F (1, 508) = 9.85$, $p <.01$). Moreno *et al.* [39] has found out in their studies that learning the sport competence (mastery) goal orientation are positively correlated. Sport competence and self-esteem are positive predictors of performance approach orientation. However, global physical self is not associated with performance approach orientation ($F (2, 507) = 11:56$, $p <.001$). Moreno *et al.* [39] have found a positive relationship between performance goal orientation and sports competence in their study.

As a result, we can say that goal orientations are of significant importance for teachers of Physical Education.

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