THE LEVELS OF EMPATHY AND SOCIAL PROBLEM SOLVING SKILLS OF PHYSICAL EDUCATION AND SPORTS TEACHER CANDIDATES

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ABSTRACT

The purpose of the current study is to investigate the empathy and levels of social problem solving skills of physical education and sports teacher candidates. The research group of the study, which was carried out through relational screening model was made up of 148 candidate teachers of physical education (53 female, 95 male) in total studying in the departments of Physical Education and Sport Teaching in 5 universities in Turkey. As a data collection tool, the information form including personal characteristics of the participants, Interpersonal Reactivity Index (IRI), and Social Problem Solving Inventory – Short Form (SPSI-SF) were used. For the analysis of the data, descriptive statistics, independent t-test, and Pearson Correlation Analysis were employed. The data obtained in the study indicated that there was a significant relationship between the emphatic skills of the physical education candidate teachers and of social problem solving skills. Depending on the variable of gender, the mean scores of the females were higher in the sub dimension of emphatic concern compared to those of males. In addition, males had higher scores in the avoidance style, which was considered the sub-dimension of social problem solving skills compared to females. As for the age factor, while there was no difference in the empathy variable, a significant and positive relationship was found in the social problem solving skills. In addition, it was determined that those doing non-contact sports approached the problem positively, while the ones doing contact sports approached the problem in an avoidance style. As a conclusion, it is likely to say that the empathy skills of the physical education candidate teachers are directly and positively related to their social problem solving skills. In this sense, the empathy education that physical education candidate teachers who are in an active relationship with students must have in order that they could have a solution based approach to the problem they are likely to encounter in this communication is of great importance.

Keywords: Empathy, Social Problem Solving, Candidate Teacher.

INTRODUCTION

The fact that a person, who is a social entity, establishes relationships with others at every stage of his life is one of his basic needs. However, people can encounter many problems while communicating with other people throughout their lives. The reactions to the problems he has encountered in this process can cause the positive/ negative results in the communication of the individual. Bingham (2004) describes problem solving as a process of overcoming difficulty in reaching a goal, while social problem solving is defined as a cognitive-behavioral-emotional process that he or she sets up to find effective ways to deal with the problems that one experiences in everyday life (Nezu and D'Zurilla, 2006). Among the problems that the individual experiences in everyday life, communication with the people is considered an important factor. When the literature is examined, it is seen that there is a positive relationship between social problem solving skills and empathy (Lewis et al., 2001; Nacar and Tümkaya, 2011; Yılmaz, 2011; Küçük, 2012). Davis (1983)

who has made great contributions to the concept of empathy and examines empathy in a multidimensional way, describes the empathy as a person's reaction to another's observed experiences. According to Davis (1983), empathy has both affective and cognitive elements. Empathy is the process by which a person looks at events from other person's point of view by putting himself in the face of that person, understanding, and feeling that person's feelings and thoughts correctly, and transferring this situation to him/her (Dökmen, 2004). As it is understood from this definition, empathy is an effective tool to solve the interpersonal problems that the individual has in daily life. When it is considered that communication and empathy are the concepts intertwined with each other, it can be said that the level of social problem solving skills and empathy of individuals has an important influence in communication: Social problem solving skills and empathy are important for teachers.

Establishing empathic relationship is necessary for healthy walking of interaction in interpersonal communication. Empathy in educational environment is important in establishing healthy communication between educators and students, and as a tool to prepare and implement educational programs, as well as a feature that should be given to individuals who intend to work in the field of education in the future (Köksal Akyol and Koçer Çiftçibaşı, 2005). Research shows that student success is directly related to teacher communication in class (Davies and Iqbal, 1997). Physical education teachers, who are thought to be in different positions than other teachers, seem to be inadequate in teaching profession when their empathy levels are considered (Beyaz, 2016). In the light of this information, it is important to understand how the empathy levels of the physical education teacher candidates considered to have sufficient qualification to start a career, are related to their social problem solving skills and the effect of the sport variable on these concepts.

When the Turkish literature on the field is examined, it is seen that there are few studies about empathy. Although there are studies to solve problems, it is observed that there are no studies related to social problem solving. For example, Sezen-Balçikanli's (2009) research with prospective teachers has found that the fair play training given to students has improved their empathy skills. In addition, Beyaz (2016) found that the relationship between the levels of empathic tendency and empathic skills of the PE teachers was inadequate for the teaching profession. Considering the studies in the literature, it has been understood that empathy and social problem solving are not examined in relation to each other in the sample of physical education teacher candidates. Therefore, the aim of this study is to examine the level of social problem solving and empathy of the physical education teacher candidates and to determine the relationship between them.

1. Methodology

This study has aimed to examine the relationship between the levels of social problem solving skills and empathy of the physical education teacher candidates. The relational screening model was used as the quantitative research method. The relational search model is a research model which aimed at determining the presence or degree of interaction between two or more variables (Karasar, 2012). The research group of the study consists of the fourth year students in the Department of Physical Education and Sports Teaching in the Faculty of Sport Sciences and the School of Physical Education and Sports of 5 universities in Turkey during 2016-2017 Academic Year.

Social Problem Solving Inventory-Short Form, which was developed by D 'Zurilla et al. (2002), (Quoted by D'Zurilla et al., 2004) and adapted to Turkish by Çekici (2009). It was used to measure social problem solving skills of teacher candidates. In order to determine the levels of empathy for the teacher candidates, perspective taking, and empathic concern sub-dimensions, composed of 14 items were used, which is from the Interpersonal Reactivity Index (IRI) composed of 28 items and 4 subscales, developed by Davis (1983) and adapted to Turkish by Engeler (2005). The Cronbach Alpha values calculated to determine the internal consistency of the data tools used were found for the sub-dimensions of the social problem solving inventory to be .78 (NPO), .86 (PPO-RPS), .81 (AS), and .70 (ICS), and for the sub-dimensions of interpersonal responsiveness index to be .66 (EC) and .73 (PT). In addition, a personal information form developed by the researcher was used to investigate the relationship in the variables in

the study. In the analysis of the data, Pearson Correlation Analysis was used to examine the relationship between the two features, descriptive statistical methods was used in analyzing data and independent t-test was used to determine the significant differences in the variables. Significance level is taken as 0.05.

2. Results

Results of levels of empathy and social problem solving of physical education and sports teacher candidates are given in Tables 1, 2, and 3. When Table 1 is examined, it is seen that there is a significant difference between female and male participants in the sub-dimension of empathic concern (t (146) = 2.081, p=0.039). While there was no significant difference between participants in the sub-dimension of perspective taking, it was seen that the mean of female participants (M=3.63) were higher than that of males (M=3.51). It is understood that in the sub-dimension of avoidance social problem from solving sub-dimensions, the mean of the male participants (M=2.75) are higher than that of female (M=2.43) and there is a significant difference between them (t (146)= -2.009, p=0.046). In other social problem solving sub-dimensions, it is seen that there is no significant difference between individuals.

According to Table 2, there is a significant difference in social problem solving skills of individuals engaged in contact and non-contact sports, whereas there is no difference between their empathy levels. The fact that in

			N	M	s	df	t	p
Empathy	1	Female	53	3.39	.51	146	2.081	.039*
		Male	95	3.21	.46			
	2	Female	53	3.63	.51	146	1.268	.207
		Male	95	3.51	.56			
Social Problen Solving	1	Female	53	2.74	.85	146	.906	.366
		Male	95	2.87	.82			
	2	Female	53	3.71	.67	146	1.489	.139
		Male	95	3.53	.72			
	3	Female	53	2.43	.88	146	2.009	.046*
		Male	95	2.75	.91			
	4	Female	53	2.75	.85	146	1.093	.276
		Male	95	2.90	.80			

*p <0.05; Empathy: 1= Empathic Concern, 2= Perspective Taking; Social Problem Solving: 1= Negative Problem Orientation, 2= Positive Problem Orientation-Rational Problem Solving, 3= Avoidance Style, 4= Impulsive/Carelessness Style

Table 1. Independent Groups t-test Results for Empathy and Social Problem Solving Scores of Physical Education and Sport Teacher Candidates according to Gender Variable

			N	M	s	df	t	p
Empathy	1	Contact	101	3.25	.51	146	-1.073	.285
		Non-Contact	47	3.34	.46			
	2	Contact	101	3.56	.53	146	.137	.891
		Non-Contact	47	3.55	.57			
Social Problen Solving	1	Contact	101	2.88	.84	146	1.209	.229
		Non-Contact	47	2.70	.81			
	2	Contact	101	3.50	.72	146	-2.386	.018*
		Non-Contact	47	3.80	.63			
	3	Contact	101	2.77	.90	146	2.642	.009*
		Non-Contact	47	2.35	.89			
	4	Contact	101	2.93	.80	146	1.899	.059
		Non-Contact	47	2.66	.85			

*p<0.05; Empathy: 1= Empathic Concern, 2 = Perspective Taking; Social Problem Solving: 1= Negative Problem Orientation, 2= Positive Problem Orientation-Rational Problem Solving, 3= Avoidance Style, 4= Impulsive/Carelessness Style; Contact Sports (Football, Basketball, Handball, Wrestling, Taekwondo, Boxing, Fencing) Non-Contact Sports (Volleyball, Tennis, Swimming, Table Tennis, Athletics, Badminton)

Table 2. Independent Groups t-test Results for Empathy and Social Problem Solving Scores of Physical Education and Sport Teacher Candidates by Branch Variable

the sub-dimension of Positive Problem Orientation-Rational Problem Solving, the mean of individuals engaged in non-contact sports (M= 3.80) is higher than the mean of individuals engaged in contact sports (M= 3.50) reveals the difference between them (t (146) = -2.386, p=0.018). In addition, in the avoidance style sub-dimension there was a significant difference among the participants separated as individuals in contact (M=2.77) and non-contact (M=2.35) (t (146) = - 2.642, p = 0.009), whereas it was determined that the mean values are graded in the opposite direction in the sub-dimension of Positive Problem Orientation-Rational Problem Solving.

Results in Table 3 show that there is a relationship between age, sport age, and sub-dimensions. While there is no relationship between the age variable and the empathy

Variables	1	2	3	4	5	6	7	8	M	SD
1	-								23.45	2.20
2	.446**	-							9.73	4.01
3	.089	.188*	-						3.28	.49
4	.125	.201*	.500**	-					3.56	.54
5	.111	-.014	.099	-.132	-				2.82	.83
6	.191*	.225**	.461**	.493**	-.033	-			3.60	.71
7	-.038	-.023	-.019	-.164*	.594**	-.100	-		2.63	.91
8	.088	-.050	.031	-.134	.558**	-.018	.676**	-	2.85	.82

1=Age, 2= Sports Age, 3= Empathic Concern, 4= Perspective Taking, 5 = Negative Problem Orientation, 6 = Positive Problem Orientation-Rational Problem Solving, 7 = Avoidance Style, 8 = Impulsive/Carelessness Style

Table 3. Results of Correlation Analysis related to Age, Sport Age, and Sub-Dimensions

sub-dimensions, it appears that there is a positively low relationship between it and the sub-dimension of positive problem orientation-the rational problem solving. It is noted that there is a relationship between sport ages and both empathy and social problem solving skill levels, and that this relationship is positive with respect to empathy sub-dimensions and PPO-RPS sub-dimension, and vice versa with other sub-dimensions. In addition, it is found that the two sub-dimensions of empathy have a positively moderate relationship with the PPO-RPS sub-dimension.

3. Discussion

The findings of this study, which aimed at examining the levels of empathy and social problem solving skills of physical education and sport teacher candidates, showed that these two characteristics, which are related to each other, point to different outcomes within variables. When the participating individuals in the research were evaluated in terms of gender, it was determined that the empathy level of female participants was higher than that of males, which is in line with findings of previous studies. In their study on empathy and aggression in sports; Stanger et al. (2017) stated that empathy levels of females differed from males, and that this proportion was high in favor of females. In addition, Lewis et al. (2001) pointed out the differences between the opposite genders in their study on empathy and problem solving, and determined that females had more empathic skills than males. When the literature is examined in addition to these studies, it is seen that there are results in support of present research findings (Atan, 2017; Nacar, 2010). When the level of social problem solving is examined, the results of this study show that the mean of male participants differs from the females' avoidance style sub-dimension and this value is higher in males. It was observed that there was no difference in the other sub-dimensions of the scale, but the mean of the females was higher than that of males within the positive problem orientation. The difference in these two score means shows that females approach more solution oriented to the daily problems and males are hesitant about this situation and they are getting away from the solution of the problem. Indeed, in their study on individuals with emotional disorders; Bradley et al. (2004) stated that males have a lower mean in terms of level of social problem solving. In addition, Türkçapar (2009) and Korkut (2002) found findings paralleling these results in their research. When the research results and the results showing similarity are evaluated in the context of the literature, it is emphasized that the ability of females to understand the individual against them are in a better position and that they follow a path based on approaching positively and solving the problem.

As a result of grouping according to sports category of participant individuals, they were divided into contact and non-contact sports, and while difference in empathy levels of groups could not be determined, the difference in social problem solving skills attracts attention in favor of those playing non-contact sports. Canan and Ataoğlu (2010) found in their studies examining the effect of sports on problem solving skills that they divided the research group into teams and individual sports and revealed that between the two groups, individuals who were engaged in individual sports had significantly higher means than the others. This situation is explained as group psychology. When evaluating in the direction of the findings of the study, the facts that the individuals who are engaged in non-contact sports cannot make close contact with the opponent during the competition and try to reach the solution by observing the problem that they may encounter and on the other hand, the individuals who are engaged in contact sports try to reach the solution of the problem in the direction of the risk factors that they can experience during this contact can be interpreted as a factor that reveal the difference. The conducted correlation analysis showed that there are significant differences in the variables of age and sports age. The level of empathy in the age variable did not differ between the individuals, but it was determined that there was a low positive correlation between the sub-dimension of positive problem orientation -rational problem solving and the age. The sport age variable showed difference between the participants in the two characteristics and it was seen that both the empathy and the social problem solving level increased as a result of the increase in the sport age. When the literature was examined, it was found that in the sport age variable, the two features were not handled, while there were studies showing similarities in the age variable (Acet, et al., 2017;

Atan, 2017; Nacar, 2010). In some studies (Saracaloğlu et al., 2009; Korkut, 2002), the level of problem solving was found to be higher in younger aged individuals and it was understood that these results were not consistent with the findings of the study. When these two different situations are evaluated, it can be said that the individual learns more during his/her lives and he/she can make better decisions about the problems encountered in this direction. Within this view, it can be considered that as a result of the increase in age of the individual and the situations he/she experiences, as well as the responsibilities required by the teaching profession, it can be considered that he/she positively approached the problems encountered in daily life and took steps towards resolution.

Another finding that results from correlation analysis reveals the relationship between empathy and social problem solving skills level in the sample of physical education and sport teacher candidates. It can be said that the empathy levels of the physical education and sports teacher candidates increase in direct proportion with their reaction to the problems they encounter and their search for solutions. When the literature is examined, it is determined that there is a positive relationship between the two concepts. In his study on the sample of pre-school teachers, Yılmaz (2011) examined communication, empathy, and problem solving skills of the group and obtained the results supporting this study. In addition, Nacar (2010) found a negative relationship between empathy and negative approach to problem sub-dimension and a positive relationship between empathy and constructive approach to problem sub-dimension in the study of classroom teachers examining communication and interpersonal problem solving skills. From these studies, it is emerged that besides the teachers, candidates for this profession producing solutions to problem by showing empathy at the same level.

Conclusion

The results of this study, aiming at determining the levels of empathy and social problem solving skill of the physical education and sport teacher candidates, indicate that the gender, sports branch, age, and sport age variables create a difference in evaluating these two characteristics of the individual. It is known that the concept of sport that individual deals with during his/her life is not only important for the physical health of the individual, but also contributes positively to the individual as cognitive and affective. When this contribution is considered; within this study, as well as sports age having a positive relationship, what other aspects the effect of sports variable on empathy and social problem solving skill level can be researched. It is also noteworthy that the levels of empathy of the individuals are meaningful and different and low. Populating the empathy education systematically, especially integrating and improving the curriculum in teacher training institutions is thought to contribute to the solution of this problem. In this study, an examination was made according to the sports category and an examination can be made according to sport variety in subsequent studies. The research can be repeated on the physical education and sport teachers and evaluated according to the professional life year.

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