

Investigation of social capital, empathy and individual responsibility parameters in dual career athletes: an exploratory study

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Abstract

Background and Study Aim The main purpose of the study is to investigate whether the individual responsibility and empathy levels of athlete-students affect the level of social capital. The secondary purpose is to examine the social capital, empathy and individual responsibility levels of athlete-students in terms of various variables and to reveal the relationship between them.

Material and Methods In this context, “Social Capital Scale” , “Empathy Scale in Sports Environment” and “Student Individual Responsibility Scale” were used as data collection tools. University students participating in sports competitions in the 2021-2022 academic year were included in the study on a voluntary basis. The inclusion criteria were determined as being both an athlete and a student, being over the age of 18 and being a competitor. A total of 284 (N female=110; N male=174) athlete-students who met these criteria participated in the study. Since the normal distribution conditions were met in the analysis of the data, independent t-test was used for pairwise comparisons, one-way anova for multiple comparisons, and pearson correlation test for relationship analysis. After the assumptions were met, linear regression test was used to determine the effect levels.

Results As a result of the study, all dependent variables were high in favour of men, and the variables were positively affected as age and years of experience increased. In addition, a positive and moderate relationship was found between the dependent variables. As the main result of the study, the effect rate was determined as 39% by the regression analysis conducted to evaluate empathy and individual responsibility as predictors of social capital.

Conclusions As a result, the concept of social capital, which expresses the continuity and sustainability of our life-related social relations, seriously affects the levels of empathy and social responsibility in the sample of athlete-students in the sports environment. It is thought that the studies to be carried out for the development of these skills will positively affect the concepts of safety, social communication and fair-play in sports.

Keywords: individual responsibility, dual career, empathy, social capital

Introduction

With the developing technology and globalizing world opportunities, the 22nd century is perhaps the most fortunate period of human history in terms of communication. Although the effect of communication opportunities between individuals is quite high at the level of social communication, an important factor affecting communication is the ability to empathise. Empathy, which is simply defined as being able to put oneself in someone else's shoes, is a concept that cannot be ignored in the formation and maintenance of the idea of individual responsibility in social life and sportive competitions that have significant effects on the socialisation process [1]. The individual with individual responsibility is in a cycle that differs according to the family, friendship relations and environmental factors, which affects the individual to gain or lose social prestige through the behaviours he/she exhibits. Although individual responsibility affects the individual at every point of life, it shows its

most important distinguishing role in environments where social unity is experienced at the highest level. Sports competitions or events are among the important places where the aforementioned social unity is experienced and accordingly, interpersonal social capital is realised [2]. Social capital, empathy and individual responsibility play a complementary role by contributing to the trust between individuals, relationships and the achievement of the goals that bring individuals together. It is a phenomenon that develops trust, mutual understanding and common values and behaviors that connect human networks and groups and enable cooperation through active social connections between people [3]. It will require time and expertise to realise a goal, to achieve it and to gain momentum for success both in academic life and in sports competitions. When all these are realised, the career will be formed.

The concept of career is used in daily language for progress, profession, business life, experiences related to success [4]. Career is “the stage, success and expertise achieved through time and work in a profession” [5]. Career also refers to all the

ways and methods that individuals follow upward throughout their working lives. These ways and methods are visual or written resources on professional development, training, rotation, career counsellors, life coaches, professional and personal development, etc. [6]. The concept of dual career, which means having two careers at the same time or having a title and status in both occupations at the same time, often refers to athletes who try to maintain their professional or academic education together with their sports careers [7]. If a person has two different jobs and these jobs provide him/her with different status, title, prestige and career, he/she should have the expertise, knowledge, skills and abilities required by both jobs. If not, he/she has to improve himself/herself in these subjects. This process is called dual career. However, it is inevitable for people to experience problems while progressing in these two careers. While trying to develop his/her career for both jobs, the person may experience problems when he/she does not use his/her energy in a balanced way. Sometimes one of the two jobs makes the person happier. In this case, the person may neglect the other job [6].

Many athletes continue their sporting careers together with education or occupation. This process starts with the participation of the athletes in compulsory education and continues with the inclusion of the majority of them in higher education or professional employment in the following period [8]. An athlete must be in an intense competition and training program in order to achieve a high level of success in the sports branch s/he is doing. In this intense pace, the athlete is also expected to continue his/her academic education. In these cases, special regulations may be needed for elite and talented athletes to avoid the necessity of choosing sports or education [9]. Although the successful regulations of a global society cannot be implemented in other countries, it is extremely important to examine the history of various education systems [10].

However, the flexibility in terms of expenditure and the role of the workplace as a tool for self-development and socialising with friends are among the advantages of dual careers, especially for students who have difficulty in meeting the increasing financial resources [11]. Thus, having a dual career will increase the status of the students in society, the quality of their living standards and their income, which is one of the biggest advantages of individuals with dual careers. Individuals who have better financial opportunities will experience psychological relief, and accordingly, their social capital, empathy and individual responsibility levels will differ from other individuals.

Material and Methods

The research is a study in relational survey model to examine how much perceived empathy and

social responsibility perception variables predict social capital levels in athlete university students. The ethical procedure of the study was supported by Selçuk University Non-Interventional Clinical Research Ethics Committee with the decision dated 09.11.2022 and numbered E-40990478-050.99-403334.

Participants

The universe of the research consists of students studying university and participate to sports competition in Turkey in the 2021-2022 academic year. The sample group of the study consisted of 284 (Nwoman=110; Nman=174) students from faculty of sport science who were selected by convenience sampling method, studied at the central campus of Selçuk University, regularly participated in mobile games, and participated in the study voluntarily. The criteria for inclusion in the study are to have been student and athlete same time and above the 18 years. For this purpose, it was questioned in athletes branches, age and experiences at sports in the study.

Research Design

The data collection process was collected in the units located on the main campus, fieldhouse during or outside the lessons and after training. Individuals participating in one branches amateur or professionally were given preliminary information about the study, they were promised that their personal information would be protected, and the scale was applied on a voluntary basis. It took 7-10 minutes per person to complete the scale.

Instruments

Social Capital Scale

Scale developed by Onxy and Bullen [12] and adapted to Turkish by Ardahan [13]. was used to determine the social capital perceptions of athlete students. The scale is based on self-report and consists of 28 items. The scale has 9 dimensions which are participation in local committee, neighbourhood relation, sense of belonging, tolerance for differences, Nongovernmental Organization (NGO) Membership, trust in people, safe environment, initiative in social issues and social representation. The statements in the scale are definitely rated as absolutely yes (4), often yes (3), often no (2) and absolutely no (1). High scores obtained from the scale indicate that the perception of social capital is high. The validity of the Turkish form of the scale was examined by exploratory factor analysis. The factor loading of the scale items ranged from 0.58 to 0.89. The alpha coefficient calculated for the overall scale was 0.71 [13].

Empathy Scale in the Sports Situations (ESSS)

Empathy Scale in the Sports Situations (ESSS) developed by Erkuş and Yakupoğlu [14] was used in

order to measure empathy level of athletes in the sportive situation. It is a four point Likert type scale. The scale is consisted of 16 items under emotional empathy (5 items) and cognitive empathy (11 items) [14]. In this study; internal consistency coefficients of the ESSS are .951 were found to be within acceptable range in this study.

Individual Responsibility of Student Scale

The scale developed by Singg and Ader in [15], was adapted to Turkish by Doğan [16]. It consists of 10 items. In the measurement tool, there are options for variable 4-point Likert grading between “same me” and “not related to me” for each item. In the study, the Cronbach Alpha internal consistency coefficient was found to be .70.

Statistical Analysis

In the analysis of the data, descriptive statistical methods frequency (n), percentage (%), arithmetic mean (X) and standard deviation (SD) were used for personal information. In the study, first of all, the normality and linearity of the data sets were evaluated to determine whether the data were suitable for simple linear regression analysis and chosen which variance analyses had been to. The existence of extreme values that make normality (multivariate) and linearity assumptions difficult was examined according to mahala Nobis distance (8.02) and cook's (Cook'<1) values. In addition, the kurtosis, skewness values, scatter and histogram graphs of the data sets were also examined. In addition to meeting the linearity and normality conditions of the data sets, it was seen that the sample size was sufficient considering the number of predicting variables. For the condition that there is no high correlation coefficient between the predictor variables, which is another assumption of the simple linear regression analysis, the binary correlation coefficients between the predictor variables, VIF and CI values were examined.

It was determined that there was no correlation value above .80, which can be defined as multicollinearity among the predictive variables, the VIF value was less than 10 and the CI value was less than 30. Finally, the Durbin-Watson value was checked to examine the condition of errors being independent; It has been seen that the value is between 1-3 (DW=1.29) and does not pose a problem. It has been determined that the data obtained depending on these processes are suitable for simple linear regression analysis. The data obtained in the research were analyzed using the simple linear regression analysis method and the inter regression analysis method. .05 significance level was taken as basis in the research [17, 18].

Results

In this section, the characteristics of athlete university students (Table 1), the relationships

between the predicted variable (Social Capital) and the predictor variables (Empathy and Personnel Responsibility) were examined (Table 3). Then, from simple linear regression analysis, inter regression analysis was performed and the results are given in Table 4. In addition, investigated to scales with demographic variables (Table 2).

Table 1. Participant Characteristics of athlete university students

Variables	Category	N	%
Branches	Taekwondo	182	64.1
	Wrestling	102	35.9
Gender	Women	110	38,7
	Men	174	61,3
Experience (Year)	1-3 years	83	29,2
	4-6 years	42	14,8
	7-9 years	66	23,2
	10 years	93	32,7
Age	<20 age	130	45,8
	21-23 age	128	45,1
	24 age and above	26	9,2
Total		284	100,0

According to table 2, social capital and empathy levels are statistically significant in favor of female athletes-students by gender. Socail capital, empathy and personnel responsibility levels statistically significant in favor of under 20 age and empathy and personnel responsibility levels statistically significant in to the detriment of who had experience 7-9 years in sport.

When Table 1 is examined, it is seen that there are moderately positive and significant relationships between the total scores of social capital, empathy and personnel responsibility of student scales.

Examining the ANOVA table, which tests the relationship between the predictor variables and the predicted variable and therefore the significance of the degree of explaining the change in the predicted variable, it was found that the explained variance or the regression model was statistically significant ($F_{2/281}=89.648$; $p<0.001$). Accordingly, the predictor variables successfully performed the prediction process on the model.

When Table 4 is examined, it has been determined that empathy and personnel responsibility variables are treated in the inter regression analysis process, since the regression analysis significantly predicts social capital. When both beta values and partial and binary correlation coefficients (Table 3) were examined, it was determined that there were positive and significant correlations between social capital, empathy and personnel responsibility variables. Perceived personnel responsibility and empathy variables together explain approximately

Table 2. Comparisons of Social capital scale, empathy scale and individual responsibility scale according to demographic variables

Parameters	Social Capital	Empathy	Personnel Responsibility
Female	79,70±15,26	51,57±6,90	26,09±5,97
Male	72,61±18,80	47,18±13,15	25,98±6,37
t/ES	3.320**/0.40	3.227**/0.39	0.135/0.01
<20 age	80,05±15,61 ^a	50,88±6,99 ^a	27,11±5,88 ^a
21-23 age	71,32±19,92 ^b	45,92±14,50 ^b	24,67±6,46 ^b
>24 age	71,73±10,49 ^b	53,46±7,00 ^a	27,23±5,35
F/ES	8,778**/0.05	8,974**/0.06	5,679**/0.03
1-3 years	75,36±15,81	49,98±7,45 ^a	27,45±6,03 ^a
4-6 years	75,30±13,44	50,45±7,71 ^a	27,69±5,23 ^a
7-9 years	70,92±26,54	41,96±17,91 ^b	21,09±5,74 ^b
>10 years	78,52±12,32	52,09±6,80 ^a	27,50±5,27 ^a
F/ES	2.375/0.02	12,549**/0.11	22,205**/0.19

*p<0.05; **p<0.01; L: Lower; U: Upper; t: Independent sample t test value; F: One-way anova test value; Post-Hoc: were used Scheffe test in this study (a: higher, b: lower), ES: Effect Size (cohen's d for t test and f for Anova)

Table 3. Relationships Of Social Capital, Empathy and Personnel Responsibility Scales

Scales and Sub-dimensions		1	2	3
Social Capital	r	1	0.610**	0.396**
	p		0.000	0.000
Empathy	r	0.610**	1	0.459**
	p	0.000		0.000
Personnel Responsibility	r	0.396**	0.459**	1
	p	0.000	0.000	

**p<0.01

Table 4. Simple linear regression analysis showing predictive power of independent variables

Model	Unstandardized Coefficients	Standardized Coefficients	t	Sig.	R	R ²	Adjusted R ²
B	Std. Error	Beta					
(Constant)	220.721	4.217	50.388	0.000			
1 Empathy	0.854	0.082	0.543	100.357	0.000	0.624 ^a	0.390
Personnel Responsibility	0.419	0.151	0.146	20.784	0.006		0.385

39% of the total variance in social capital in athlete university students (R=.624; R²=.390; P<.01).

Discussion

Sports and competitions serve as a showcase in many countries. The promotion of culture made in this way is important in breaking global prejudices, developing strong empathy and clarifying international tolerance. Because the phenomenon of peace, on which the Olympic philosophy is based, is most visible in sports environments. Considering all this network of relationships, it is necessary to investigate the concepts that need to be developed

and affect each other in the environments where most of the student-athletes, from among the dual-career athlete groups that can be considered as a special group, are candidates to represent their country or are currently representing their country.

The aim of our study is to examine the concepts of social capital, empathy and individual responsibility according to the basic variables and to reveal the relationship between them. The study also aims to investigate the effects of empathy and individual responsibility concepts as predictors of social capital in dual-career athletes.

As a result of our study, significant results were

obtained in favor of female participants in the social capital and empathy scales by gender, in favor of athletes aged 20 and under in all scales by age, and in favor of participants with low years of experience in empathy and responsibility scales by experience.

In their study on empathy, Ozturk et al. [19], Toussaint and Webb [20], Dorak and Vurgun [21] found that female participants had higher levels of empathy than males. Ekinci [22] and Gürocak [23] concluded that the results of the test they conducted to determine whether the social capital levels of the participants changed according to gender were significant in favor of female participants. Akgün Şahin and Kardaş Özdemir [24] indicated that as the age of the participants increased, their empathy skills increased and it was statistically significant. Barsbuga et al. [2], Inan [25] and Arı [3] found a highly significant difference between the participants in the low age group compared to the participants in the high age group. In other words, they concluded that younger age groups have higher social capital levels. In the studies conducted by Tapşın and Karagün [26] and Toprak [27], it was determined that younger students had a higher sense of individual responsibility than older students. It can be said that this difference between empathy perceptions in the literature and our study is due to the presence of many factors (such as time/success/academic/educational issues) that may be more effective than the age group in the university and sports environment. In the study conducted by Akgün Şahin and Kardaş Özdemir [24], it was concluded that as the experience of the participants increased, their empathy skills decreased and it was statistically significant. In their study on individual responsibility levels, Barsbuga et al. [1] did not find a statistically significant difference between the participants according to the experience variable. Considering these results, it is thought that high levels of empathy and individual responsibility of dual career individuals who are new in terms of experience compared to individuals with more experience are due to their high sense of achievement and self-affirmation. In the study, the results in consistent with the literature were obtained by evaluating the scales applied with the demographic variables. The results contradicting the literature can be attributed to the fact that the research group is dual-career athletes, who only exist in individual competitive sports, and their age groups, habits and terms are similar [28]; [29].

In the findings constituting the exploratory part of our study, moderate positive relationships were found between social capital, individual responsibility and empathy scales. The existence of this relationship reveals the possibility that these phenomena may affect each other [30]. In this study conducted on dual career athletes, it is investigated whether empathy and individual responsibility

affect the concept of social capital. As a result of the study, it was concluded that these two phenomena affect social capital by 39%.

Empathy, individual responsibility and social capital, as three different concepts and behavior regulation factors, are the elements that will facilitate the life of the individual, and affect the attitudes towards life, such as communication skills, self-confidence, punctuality, tolerance and so on [31, 32]. However, social capital, which is one of the capital types defined by the literature, which characterize social life and ensures its continuation with harmony, includes the elements of empathy and responsibility [33, 34]. It is argued that empathy and responsibility, which are of high importance in the sports environment, are a necessity in the success-oriented work of competitive athletes [35]. The athlete-student group that constitutes our sample also tries to exist in an ongoing social environment. In a dual career, one's involvement in sports requires an absolute social skill to sustain the other career. In this context, it can be said that social capital patterns of this group develop and individual responsibility and empathy levels should be higher than individuals who are only athletes or only students [36, 37].

In the sports environment, the components of empathy, individual responsibility and social capital can be seen separately. Athletes and members of the sports environment come to the fore with their sensitivity towards their environment while performing their duties within certain rules [38]. On the other hand, it is predicted that the athlete who is far from this sensitivity has a very high probability of displaying anti-fair play behavior in the sports environment [39]. The athlete gains permanence with the rule that s/he is aware of her/his own situation and can act in accordance with it [40]; [41]. The basic element of success is the sense of responsibility in sports competitions where irresponsibility becomes evident most quickly and directly affects success. This encourages the individual to examine and internalise both his/her responsibility towards himself/herself and the environment [42]. This brings up the concept of empathy. Empathy in the sports environment has many factors such as coach, team, opponent, audience, field, environment, etc. The athlete who acts with the awareness of all factors is expected to anticipate foreseeable outcomes and to determine the focus of success thanks to his/her empathic side [43, 44]. Empathy fuelled by individual responsibility enables us to see the elements of social capital in the sports environment as the expression of the relationship between them [13]. Independent from the sports environment, the efforts of dual career athlete-students, who constitute our research group, to realise themselves in more than one environment is a situation that directly or indirectly affects these

concepts. It is important to manage and direct social situations such as social environment, tolerance to difference [45], representation, belonging and tolerance, which are among the components of social capital, in the sports environment. Athletes tend to rely on the relationship of coming together as a team. This sense of trust will increase the success of the team or individual and feed each other. In addition, since athletes from different cultures within the team will have the opportunity to better understand their surroundings and benefit from different perspectives, and the source of empathy will feed the social capital elements [46]. It is thought that the prediction rate of 39% obtained from the study is a serious level of influence as a result of the fact that the competitive students in the sports environment are involved in more than one area of responsibility [47].

Conclusions

As a result of our study, the relationship between the concepts of individual responsibility, empathy and social capital has been revealed. It has been concluded that these three phenomena that support social status and behaviors have a high power of

influencing each other in the perceptions of students in the sports environment. It can be said that the fact that individuals are in more than one social environment in the context of being a student and an athlete feeds similar perceptions that develop the perspective of socialization and sensitivity. Future researchers can apply this study and similar studies on team athletes and individuals participating in recreational activities. Determining the differences between individual and team athletes and revealing the extension of the athlete-other sector employee from the athlete-student context will enrich the literature. Based on the results of the study, it is also recommended to compare the dual-career and single-career samples, to determine the situation and, if necessary, to carry out supportive studies.

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Conflict of Interest

The authors declare no conflict of interest.

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