



THE EFFECTS OF BASIC PSYCHOLOGICAL NEEDS ON PSYCHOLOGICAL SKILLS OF ATHLETES

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Abstract:

Introduction and Aim: Psychological skills are one of the determining factors in an individual's sportive performance. The psychology of the athletes before during and after the competition directly affects his or her performance in the competition. According to the theory of self-determination, satisfying the individual's basic psychological needs is necessary for individual growth, integration, development, mental health and wellbeing. It has become necessary to conduct a research on how effective the satisfaction of basic psychological needs in the development of psychological skills affecting the performance of the athlete during the competition can be achieved by going out of this theoretical way. In this context, it is aimed at investigating the effect of basic psychological needs on psychological skills of athletes.

Method: A total of 150 athletes, 39 females and 111 males, participated in the research in various sports branches. "Athletic Coping Skills Inventory-28" and "Basic Psychological Needs Inventory" have been conducted to athletes. Descriptive statistical analysis, t test, ANOVA and linear regression analysis have been used in the analysis of the data.

Findings: As a result of the analyses, there is no significant difference on the gender basis according to the scores obtained from the "Athletic Coping Skills Inventory-28", while there is a significant difference in favor of the national athletes in terms of being national athletes ($p=0.004$). Additionally, a linear regression analysis has been conducted to designate the extent to which the psychological needs of the athletes explain their

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psychological skills. According to the results, the basic psychological needs explains 22.1% of the total variance related to the psychological skills of the athletes ($\beta=.479$, $t=6.629$, $p=.000$).

Result: Accordingly, it can be said that satisfying basic psychological needs will contribute to the development of basic psychological skills.

Keywords: psychological skills, basic psychological needs, subject well-being

1. Introduction

Athletes have a series of factors which cause psychological disorders that impair their performances during the competitions. Beside high competitive capacity, physical endurance and tactic, coping strategies used by athletes in order to overcome these psychological disorders can create the difference between a champion and a loser (Rossi, Vitorino, Salles, & Cortez, 2016). Coping strategies, which are the key to success for the athlete, can be applied through using certain psychological skills. And how these skills can be used by the athlete is one of the affairs of sports psychology.

It is one of the [essential principle](#) of the sports psychology that psychological skills are the important determinants. Moreover, it is important how the sports consultants, coaches and athletes would learn, teach and apply these skills (Williams, 1993).

Psychological skills of athletes include mental training processes such as ability for coping with difficult situations, being open to learning, concentration, motivation for trust and success, setting goals, mental preparation, having good performance under pressure and avoidance of anxiety (Smith, Schutz, Smoll, & Ptacek). There are plenty of evidences about that in addition to the sportive performance, these skills play an important role for minimizing sports injuries (Gould, Weiss, Weinberg, 1981; Greenspan & Feltz, 1989; Mahoney, 1989; Mahoney, Gabriel, & Perkins, 1987; Hanson, McCullagh, & Tonymon, 1992; Smith, Smoll & Ptacek, 1990; Williams, Tonymon, & Wadsworth, 1986).

Sports experts, coaches and athletes apply for sports psychology in order to learn these sportive skills and mental training processes (Smith, Schutz, Smoll, & Ptacek). Psychological process of athletes before, during and after a competition affects their competition performance directly.

The [prerequisite](#) for performing the athletes' psychological skills effectively is that athletes should give all his concentration for the competition. In order to achieve this they should not have any physical or psychological needing. It is not possible to

expect from athletes being concentrated on the competition effectively without meeting these necessities.

Physical necessities can be defined as various sports equipment, instruments while psychological necessities are human specific urges such as motivation, ambition, requirement, desire, hope and will to succeed (Özaydın 2011).

Necessity is explained as pressure and impulse or requirement which arises in the brain which stems from either inner or outside motion (Arslanoğlu, Tekin, Arslanoğlu, & Özmutlu, 2010). All psycho-social needs are generally named as basic needs (Eysenck, Arnold ve Meili, 1972).

According to self-determination theory, satisfying individual's basic psychological needs is necessary for individuals' development, being socialized, improvement, mental health and wellness (Ryan ve Deci, 2000; Andersen, 2000). In self-determination theory, there are three basic psychological needs called as autonomy, competence and relatedness. In the theory, it is accepted that basic psychological needs are universal (Deci and Ryan, 1985; Ryan and Deci, 2000; Coleman, 2000). According to this theory, satisfying these needs are necessary for individuals' growing up, being socialized, development, mental health and wellness (Ryan and Deci, 2000; Andersen, 2000). In the theory, it is stated that when three basic needs required for healthy development of individual are provided it will contribute for his strong-willed and of good quality motivation, durability of activity, increasing performance, stability and creativity. Thus, when the basic psychological needs are provided, individuals increase their efforts for their goal, use their capacity effectively therefore raise their wellness level (Yarkın, 2014).

With the perspective of this theory, there has occurred a necessity for carrying out a study about that satisfying basic psychological needs are significantly important for developing psychological skills that affects the athletes' performance during the competition. In this respect, research question is that *"how do the basic psychological needs affect athlete's psychological skills"*.

2. Method

In the study, survey model has been used and the study is a descriptive study which aims at designating explanatory and predictive relationships between "basic psychological needs" and "athlete's psychological skills". In this study, researchers have used quantitative data analysis method during the collecting data and analysis process. Two different scales have been used in order to collect data from elite athletes.

2.1 Research Group

Research sample consists of 39 elite female and 111 elite male athletes from various branches, totally 150 volunteer athletes. Defining characteristics of samples are shown in Table 1.

Table 1: Defining Statistics About Research Group

	Category	f	%
Gender	Female	39	26.0
	Male	111	74.0
Age	14-18	33	22.0
	19-23	80	53.3
	Over 23	37	24.7
National Athlete	Yes	63	42.0
	No	87	58.0
Sport Branch	Taekwondo	64	42.7
	Box	15	10.0
	Volleyball	5	3.3
	Wrestling	33	22.0
	Curling	17	11.3
	Football	16	10.7

2.2 Data Collection Tools

In the study, “Personal Information Questionnaire” has been used in order to define demographic characteristics of the subjects. Furthermore, “Athletic Coping Skills Inventory-28” and “Basic Psychological Needs Inventory” have been applied.

2.3 Athletic Coping Skills Inventory-28

It is a core assessment tool for evaluating athlete’s psychological skills developed by Smith R., Schutz R., Smoll F. ve Ptacek J. (1995). Practice of Turkish validity and credibility has been done by Erhan S. E. et al (2015)

2.4 Basic Psychological Needs Inventory

Scale of Basic Psychological Needs has been first developed in order to designate the level of satisfying basic psychological needs in business environment and its validity and credibility has been tested (Baard, Deci, & Ryan, 2004). Gagné (2003) has converted it for measuring satisfying basic psychological needs in life generally by doing small changes on it. Different forms of the scale have been used in a lot of studies and its validity and credibility have been tested.

2.5 Data Analysis

Collected data from subjects has been transferred into electronic environment through IBM SPSS Statistics v22.0 and various statistical analyses have been carried out. It has been found that data has normal variance hypothesis by checking the figures of Skewness and Kurtosis. In addition to this, it has been checked out the variance inflation factor (VIF) and tolerance values in order to check out the multicollinearity. It has been observed that all VIF values are lower than 10 and tolerance values are between 0.45 and 0.84. Moreover, Durbin Watson test has been applied on the data and it has been observed that these values are 1.82 and as a result of this there is no autocorrelation in data. Descriptive Statistic analysis, t-test and multivariate linear regression analysis have been used in data analysis. In analysis, statistical significance level is ($p < 0.05$).

3. Findings

Table 2: Analysis of Athletes' basic psychological needs and psychological skills with sub-dimensions in respect of gender variation

Dimension	Variation	n	X	ss	t	p																																																																																																																						
Autonomy	Female	39	3.61	.73	1.047	.299																																																																																																																						
	Male	111	3.47	.57			Proficiency	Female	39	3.61	.81	.932	.355	Male	111	3.47	.71	Relation	Female	39	3.75	.70	.883	.381	Male	111	3.64	.61	Total Basic Psychological Needs	Female	39	3.66	.66	1.068	.290	Male	111	3.54	.55	Coping With Adversity	Female	39	2.88	.65	.376	.708	Male	111	2.84	.56	Coachability	Female	39	2.85	.73	.290	.773	Male	111	2.81	.55	Concentration	Female	39	2.85	.57	1.360	.178	Male	111	2.71	.56	Confidence and Achievement Motivation	Female	39	3.12	.60	1.660	.102	Male	111	2.94	.59	Goal Setting and Mental Preparation	Female	39	3.16	.56	2.470	.016*	Male	111	2.89	.62	Peaking Under Pressure	Female	39	2.64	.47	-.088	.930	Male	111	2.65	.49	Freedom From Worry	Female	39	2.69	.57	-.013	.990	Male	111	2.69	.60	Total Psychological Skill	Female	39	2.84	.32	1.244	.217	Male
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* $p \leq 0.05$

When the table 2 is analyzed it has been observed that gender variation has a significance in the favor of females in respect of sub dimension of goal setting and mental preparation. According to this finding, it can be said that females have higher level of skills in setting goal and mental preparation than males. It has not been found out any important significance in other dimensions.

Table 3: Analysis of Athletes' basic psychological needs and psychological skills with sub-dimensions in respect of variation of being a national athlete

Dimensions	Variation	n	X	ss	t	p
Autonomy	National Athlete	63	3.58	.58	1.212	.227
	Not National Athlete	87	3.45	.64		
Proficiency	National Athlete	63	3.59	.80	1.212	.228
	Not National Athlete	87	3.44	.68		
Belonging	National Athlete	63	3.79	.63	1.886	.062
	Not National Athlete	87	3.59	.63		
Total Basic Psychological Needs	National Athlete	63	3.66	.60	1.641	.103
	Not National Athlete	87	3.50	.56		
Coping With Adversity	National Athlete	63	2.97	.49	2.308	.022*
	Not National Athlete	87	2.76	.63		
Coachability	National Athlete	63	2.92	.59	1.797	.075
	Not National Athlete	87	2.75	.60		
Concentration	National Athlete	63	2.84	.54	1.744	.083
	Not National Athlete	87	2.68	.58		
Confidence and Achievement Motivation	National Athlete	63	3.10	.54	2.088	.039*
	Not National Athlete	87	2.90	.63		
Goal Setting and Mental Preparation	National Athlete	63	3.07	.57	1.871	.063
	Not National Athlete	87	2.88	.63		
Peaking Under Pressure	National Athlete	63	2.79	.44	3.092	.002*
	Not National Athlete	87	2.55	.48		
Freedom From Worry	National Athlete	63	2.69	.59	.089	.929
	Not National Athlete	87	2.68	.59		
Total Psychological Skill	National Athlete	63	2.88	.32	2.942	.004*
	Not National Athlete	87	2.71	.35		

* p<0.05

When the table 3 is analyzed it is observed that there is no significance in respect of being a national athlete and it has been observed that there is a significance in favor of the national athletes in respect of sub dimensions of total psychological skill score, peaking under pressure, confidence and achievement motivation and coping with adversity according the results of Subjects' scores of sub dimension of basic psychological needs and total scores.

Table 4: The level of prediction of basic psychological needs on athletes' psychological skills

R	R ²	Corrected R ²	The Error of Predictive Standards
.487	.237	.221	.310

Table 5: B and Beta correlation factors and significance level of the variations

Predictors	B	Std. error	β	t	p
(Stable)	1.717	.162		10.591	.000
Autonomy	.156	.058	.276	2.681	.008
Proficiency	.026	.054	.055	.488	.626
Belonging	.117	.059	.213	1.993	.048

When the table-4 is analyzed it is designated on which level athletes' psychological skills, autonomy, proficiency and belonging variations are predicted by conducting linear multi regression and according the results of the process it has been found out that $R=.487$, $R^2=.221$. Consequently, it has been seen that 22.1 percent of total variant of athletes' psychological skills is expressed by these variations.

4. Discussion

Subject well-being, psychological skill and higher performance are inseparable entirety. Higher performance depends on prerequisite of being physically and psychologically well. For instance, even a mild headache of an athlete influence competition performance greatly.

In this study, it has been analyzed the evaluation of psychological skills and basic psychological needs in respect of several variations and on which level the basic psychological needs predicts psychological skills by conducting several analyses.

When the athletes' basic psychological needs are satisfied, he or she will raise the level of subject well-being so it will contribute to psychological skills. Thus, according the results of the analysis it has been found out that basic psychological needs have the power of predicting 22.1 percent of psychological skills.

According the results of the analyses, it has not been observed any significance between the sub dimensions of basic psychological needs and psychological skills except sub dimension of goal setting and mental preparation in respect of gender variations. According the study made by Scheier ve Carver (1992), it has been observed that during having difficulties females apply for social support more often than males. Beside, in the study made by Şahin, Rugancı, Taş et al. (1992), it has been found out that female students have more necessity of applying for social support than male students. The findings of these two studies show that males have higher level of skill of coping with adversity than females and females are in the tendency of applying for social support. The findings contradict with the conducted study. It is thought that the reason

of this difference stems from the subject group. Because athletes are ambitious and passionate in essence. Thus, elite athletes have higher level of skill of coping with adversity without noticing the gender.

In the study, it has been found put that there is no significance in respect of score of concentration variation. Cherapkina has found out in his study that males have more alfa-teta and beta cerebral activities in right and left hemisphere that increases the concentration than females, because of this, males have higher concentration than females during the competition. The findings contradicted with the conducted study.

Montero and Lopez (2014) has found out that there is a positive significant relationship between basic psychological needs and self-trust prior to the competition in the branch of judo. This study and the other similar studies (Gagne and et al. 2003; Treasure and et al. 2004; Blanchard & Vallerand, 1996; Amorose & Anderson-Butcher, 2007) support the findings. In this regard, it can be said that one of the most important prerequisite of self-confidence is satisfying the basic psychological needs. Sportive performance of athletes whose psychological needs cannot be satisfied enough can be affected negatively because of losing self-confidence.

In the study, it has been observed that basic psychological needs predict 22.1 percent of psychological skills. According to this result, it can be said that basic psychological needs are moderate level of predictors of psychological skills. It can be said that if athletes' basic psychological needs are satisfied they will be subject well-being so their psychological skills will be affected positively.

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