



GOAL COMMITMENT AND PSYCHOLOGICAL RESILIENCE AMONG CYCLING ATHLETES

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Abstract:

Cycling sport is one of the sports that require physical and psychological resilience. It is thought that athletes should show physical and psychological resilience to reach specific target, find solution for unexpected, sudden problems, be patient and be determined in this sport that requires physical and psychological resilience that is done under extreme conditions. It is important to examine goal commitment and psychological resilience of cycling athletes for performance improvement, success motivation and contribution to the studies in this field. Purpose: This study aimed to examine goal commitment and psychological resilience of elite cycling athletes. 94 elite bicycle athletes participating in national and international races between the ages of 18 and 27 participated voluntarily. Resilience Scale for Adults, developed by Friborg et al. (2003), was used to determine psychological resilience of athletes. Goal Commitment Scale, developed by Hollenbeck, Williams and Klein (1989) and adapted to Turkish by Şenel and Yıldız (2016), was used to determine goal commitment. Scale reliability coefficient was found to be 0.913. In conclusion, no significant differences were found between sex and psychological resilience and goal commitment. But, significant differences were found between sports ages and subscales of self-perception, perception of future, and structural type of Resilience Scale for Adults. Significant difference was found between sports ages and goal commitment. As sports age increase, so did goal commitment. There was no significant correlation between goal commitment and

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psychological resilience. Goal commitment and psychological resilience training is recommended for different sports branches requiring physical and psychological resilience.

Keywords: cycling athletes, goal commitment, psychological resilience

1. Introduction

Road cycling is a team sport that places high mental and physical demands on performers and teams (Kress and Statler, 2007). This is especially important because “*cycling success involves preserving and apportioning out energy as it is needed during a race*” (Taylor and Kress, 2006). The cycling is mainly an individual sport and therefore, its focus is on the mastery of psychological skills aiming to increase arousal, motivation, confidence and focus, managing emotions, decreasing anxiety, pain, fear and regulating recovery (Miller and Hill, 1999; Taylor and Kress, 2006). Cycling is defined as a sport that requires a special resilience. A cyclist covers a distance of nearly 30.000-35.000 km each year during trainings and special and official races. In the last 21st day of Tour de France, elite cyclists ride a distance of 3500 km. in total (Avan, 2013). It requires specific skills such as cycling, good exit, horseback riding, crossing curved heights, staying at high leg speed, speed adjustment. The prior sport experience of the athlete, combined with his/her individual stage of physical, mental and emotional development, is much more important than chronological age in determining what the athlete is ready for (www.cyclingcanada, 2017). The outdoor sport activities, and in particular endurance sports, are strongly influenced by the variation of meteorological parameters. In effect the evaluation of bio-climatological conditions and of thermal comfort in endurance sports, particularly in road cycling, has a fundamental importance not only for a proper planning of the training program and the nutritional plan, but also for a better evaluation of the race strategy (Old et al. 1995). Goal is defined as achieving certain proficiency during a certain process while goal commitment is the determination in reaching that accepted goal (Locke et al., 1981; Locke and Latham, 2002). A goal is a target, objective, standard, destination, aim or end towards which people direct their efforts (Carron et al. 2005). According to Locke and Latham (1990), individual task performance is affected by goals because having goals leads individuals to do what is necessary to produce such performance. There are three main direct goal mechanisms: effort, persistence and direction; which are mainly motivational (Locke 1996). Studies done demonstrate that athletes of all ages set goals to enhance their performances and goal-setting is a significant strategy to increase performance (Horn, 2008). As a result, goals are classified into 3 categories: outcome goals, performance goals and process

goals. Outcome goals mainly focus on competition while performance goals basically target at not surpassing opponents' performance but achieving a new performance by going beyond one's previous performance (Burton, Naylor and Holliday 2001; Weinberg and Gold, 2011). Psychological resilience is considered as a psychological strength to overcome obstacles in case of negativity, obscurity or change when experienced by a person (Luthans, et al. 2006). Psychological resilience is one's capacity not to lose hope when he/she experiences any kind of negative events and to find meaning in life (Deveson, 2003). It is known that an individual with high psychological resilience protects his/her psychological and physical health by assessing stressing situations as an adaptive process and using effective coping strategies (Işık 2016). Among those athletes with high psychological resilience are seen twelve characteristics: self-belief, wish/motivation, coping with pressure and anxiety, focus on performance, focus on life style and pain/hardship. In a study, the highest scores came from having an unshakable self-belief in one's capacity to achieve competition goals by recovering thanks to increased determination in success following performance obstacles and having a solid belief that one possesses unique qualifications and skills that make him/her better than opponents (Jones, Hanton and Connaughton, 2002). Studies report that psychological resilience is one of the intrinsic protective factors that constitute self-efficacy (Bartone and Hystad, 2010; Maddi, 2005). It is thought that cyclists -being engaged with cycling sport that requires physical and psychological resilience under difficult environmental conditions- are supposed to demonstrate physical and psychological resilience in order to find solutions to sudden and unexpected problems, to be determined and patient and to achieve the goal set. Investigating goal commitment and psychological resilience among cyclists is important in improving performance, increasing success motivation and contributing to the relevant studies in this field. In light of background above mentioned; this study aimed at assessing goal commitment and psychological resilience among cyclists.

2. Method

For the study, 94 elite cyclists who were aged between 19 and 27, were engaged with cycling in Konya, Manisa, İzmir and Adana Provinces and participated in national and international cycling races joined the study voluntarily. The participants were sorted into age groups and young cyclist group consisted of 36 athletes (age range: 18-25 years) while adult cyclist group consisted of 58 athletes (age: ≥ 25 years). In order to explore cyclists' psychological resilience, Resilience Scale for Adults –developed by Friborg et al. (2003) and adapted into Turkish Language by Basım and Çetin (2011) - and Goal Commitment Scale –designed by Hollenbeck, Williams and Klein (1989)

under 9 items, reduced to 5 items by Klein, Wesson, Hollenbeck and Wright (2001) and adapted into Turkish Language by Şenel and Yıldız (2016)- were used. As scores increase, so does psychological resilience. Cronbach Alpha coefficient for the total scale in the original form was found as 0.86 but in this study reliability coefficient of the scale was 0.913.

2.1 Data Analysis

In the statistical analysis of the data, independent samples t -test and Pearson correlation test were performed. Statistical analyzes were done with the SPSS 20.0 package program in the 95% confidence interval at the 0.05 error level.

3. Findings

Table 1: Assessment of cyclists' goal commitment and psychological resilience in terms of sex variable

	Gender	n	mean	ss	t	p
Goal Commitment	Kadın	28	13.92	2.49	-253	.801
	Erkek	66	14.06	2.23		
The sub-dimensions of psychological resilience						
Perception of self	Kadın	28	25.60	2.72	-,451	,653
	Erkek	66	25.90	3.06		
Perception of future	Kadın	28	15.96	2.38	-,722	,472
	Erkek	66	16.40	2.86		
Structured style	Kadın	28	17.00	1.82	.653	.516
	Erkek	66	16.63	2.69		
Social competence	Kadın	28	24.50	4.22	-.202	.840
	Erkek	66	24.69	4.36		
Family cohesion	Kadın	28	24.07	4.03	.301	.764
	Erkek	66	23.77	4.53		
Social resources	Kadın	28	28.50	3.72	.343	.733
	Erkek	66	28.18	4.27		

As seen in Table 1, it was found that cyclists' goal commitment and psychological resilience did not differ and there was no significance in terms of sex variable ($p>0.05$) but male cyclists' average goal commitment score (14.06 ± 2.23) was higher than female cyclists' average goal commitment score (13.92 ± 2.49). On the other hand, male and female cyclists' average psychological resilience scores were similar to each other.

Table 2: Assessment of cyclists' goal commitment and psychological resilience in terms of sports age variable

	Spor yaşı	n	mean	ss	t	p
Goal Commitment	8 yıldan az	40	13.47	2.12	-2.010	.047*
	8 yıl ve üzeri	54	14.42	2.36		
The sub-dimensions of psychological resilience						
Perception of self	8 yıldan az	40	24.85	3.19	-2.835	.006*
	8 yıl ve üzeri	54	26.53	2.57		
Perception of future	8 yıldan az	40	15.55	2.93	-2.274	.025*
	8 yıl ve üzeri	54	16.81	2.45		
Structured style	8 yıldan az	40	15.95	2.45	-2.789	.006*
	8 yıl ve üzeri	54	17.33	2.31		
Social competence	8 yıldan az	40	23.82	4.51	-1.592	.115
	8 yıl ve üzeri	54	25.24	4.06		
Family cohesion	8 yıldan az	40	24.07	4.22	.405	.686
	8 yıl ve üzeri	54	23.70	4.50		
Social resources	8 yıldan az	40	27.77	3.79	-1.021	.310
	8 yıl ve üzeri	54	28.64	4.30		

As seen in Table 2, it was found that cyclists' goal commitment and sports age variable differed significantly ($p < 0.05$). Also; there was a significant difference between perception of self, planned future and structured style subdimensions of Resilience Scale for Adults and sports age. Average perception of self-score was 24.85 ± 3.19 among those cycling for < 8 years whereas it was 26.53 ± 2.57 among those cycling for > 8 years; average perception of future score was 15.55 ± 2.93 among those cycling for < 8 years whereas it was 16.81 ± 2.45 among those cycling for > 8 years and average structured style score was 15.95 ± 2.45 among those cycling for < 8 years whereas it was 17.33 ± 2.31 among those cycling for > 8 years. Goal commitment score was 13.47 ± 2.12 among those cycling for < 8 years whereas it was 14.42 ± 2.36 among those cycling for > 8 years. It was seen that as sports age increased so did scores concerning perception of self, perception of future and structured style subdimensions of Resilience Scale for Adults and goal commitment.

As seen in Table 3; a significant difference was found between goal commitment and psychological resilience in terms of sports age. As sports age increased, so did goal commitment positively. On the other hand; there was a significant difference between sports age and perception of self, perception of future, structured style, family cohesion and social resources. Sports age was a factor that affected perception of self, perception of future and social competence.

Table 3: Correlation analysis of cyclists' goal commitment and psychological resilience

	Sport age	Perception of self	Perception of future	Structured style	Social competence	Family cohesion	Social resources
Sport age	r ,461**						
	p ,000						
	N 94						
Perception of self	r ,014	,283**					
	p ,892	,006					
	N 94	94					
Perception of future	r -,105	,231*	,609**				
	p ,314	,025	,000				
	N 94	94	94				
Structured style	r ,123	,279**	,652**	,559**			
	p ,239	,006	,000	,000			
	N 94	94	94	94			
Social competence	r ,146	,164	,442**	,382**	,286**		
	p ,162	,115	,000	,000	,005		
	N 94	94	94	94	94		
Family cohesion	r -,051	-,042	,226*	,326**	,225*	,441**	
	p ,624	,686	,029	,001	,029	,000	
	N 94	94	94	94	94	94	
Social resources	r ,003	,106	,457**	,508**	,380**	,603**	,667**
	p ,980	,310	,000	,000	,000	,000	,000
	N 94	94	94	94	94	94	94
Goal Commitment	r -,107	,205*	-,033	,064	,033	-,024	-,005
	p ,305	,047	,755	,539	,751	,817	,962
	N 94	94	94	94	94	94	94

4. Discussion and Result

In the current study in which cyclists' goal commitment and psychological resilience was investigated, following findings were obtained:

It was identified that cyclists' goal commitment and psychological resilience did not differ and there was no significance in terms of sex variable but male cyclists' average goal commitment score (14.06±2.23) was higher than female cyclists' average goal commitment score (13.92±2.49). On the other hand, male and female cyclists' average psychological resilience scores were similar to each other (Table 1). It is stated that psychological resilience is a multidimensional ability that is differently demonstrated in case of various life events by women and men of different age groups depending on their cultural backgrounds (Connor and Davidson, 2003). Among

participant elite cyclists, there was a significant difference between goal commitment and sports age. In terms of psychological resilience subscales; a significant difference existed between sports age and perception of self, perception of future and structured style sub dimensions of Resilience Scale for Adults. Average perception of self-score was found to be 24.85 ± 3.19 among those cycling for <8 years whereas it was 26.53 ± 2.57 among those cycling for >8 years; average planned future score was 15.55 ± 2.93 among those cycling for <8 years whereas it was 16.81 ± 2.45 among those cycling for >8 years and average structured style score was 15.95 ± 2.45 among those cycling for <8 years whereas it was 17.33 ± 2.31 among those cycling for >8 years. Goal commitment score was 13.47 ± 2.12 among those cycling for <8 years whereas it was 14.42 ± 2.36 among those cycling for >8 years. It was identified that as sports age increased so did scores concerning perception of self, perception of future and structured style sub dimensions of Resilience Scale for Adults and goal commitment (Table 2). In a study on psychological resilience among athletes; it was reported that psychological resilience components of confidence, commitment and control differed significantly depending on training age and those with a sports age of 11-15 years had higher level of belief in the capacity to control life events than those with a sports age of ≤ 5 years and 6-10 years (Pehlivan, 2014). Many researchers emphasize that social, economical and environmental changes that people experience help them survive in a more challenging and competitive life conditions; which necessitates a high level of psychological resilience (Oktan, 2012). Karimi et al. (2016) found that there was a positive correlation between psychological resilience and problem-oriented coping strategy. In a study in which elite tennis players' psychological resilience was examined; it was indicated that learned resourcefulness was the primary predictor of athletes' self-rated mental resilience and that competitive trait anxiety was relatively unrelated to coach and athlete rated mental resilience. The positive significant relationship between mental resilience and learned resourcefulness suggests that the latter may be an integral component of mental resilience, at least among elite tennis players (Cowden, Fuller and Anshel, 2014). No significant difference was obtained between goal commitment and psychological resilience. Among the participant cyclists, there was a significant difference between perception of self, perception of future and structured style sub dimensions of Resilience Scale for Adults and sports age. It was seen that as sports age increased so did goal commitment positively. On the other hand, there was a significant difference between sports age and perception of self, perception of future, structured style, family cohesion and social resources. Sports age was a factor that affected perception of self, planned future and social competence (Table 3). In a study undertaken by Connaughton et al. (2008), it was reported that older athletes had higher level of mental resilience than younger athletes. According to results of the study of

Nicholls et al. (2009); training age received higher scores in subdimensions of challenge and control. In a study titled “Team mental resilience: a case study of professional road cycling”, participants determined twelve characteristics that were believed to make up team mental resilience. The twelve characteristics covered areas including shared belief, structure, motivation, focus, group norms, social support, physical pain, cohesion, competition related pressure, and positive attitude. It was concluded that individual mental resilience has a group dimension which is team mental resilience. Those characteristics represent important areas that enable cycling teams to become mentally tough (Lorenzo 2010).

As a conclusion, no significant difference was found between goal commitment and psychological resilience in terms of sex variable. There was significant difference between cyclists’ psychological resilience subscales of perception of self, perception of future and structured style and sports age. There was significant difference between goal commitment and sports age. As sports age increased so did goal commitment. However, no significant correlation was found between goal commitment and psychological resilience.

It is recommended that the study on goal commitment and psychological resilience be done for other sportive branches that require physical and psychological resilience.

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