

Relationship Between Leisure Time and Self-regulation and Goal Orientation among Professional Athletes: A New Perspective for Improving Athletes' Physical Performance

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<http://dx.doi.org/10.13005/bbra/2478>

(Received: 21 July 2016; accepted: 04 August 2016)

This study examined the relationship between leisure time and self-regulation and goal orientation among professional athletes. This study was an applied research using survey to collect data. Standard questionnaires were used to measure leisure time, self-regulation and goal orientation. The studied samples included 100 Iranian professional athletes in individual sports (judo and jujutsu) and team sports (handball and basketball) who were selected by selective sampling method. Data was analyzed by descriptive and inferential statistics, one-sample t-test, Pearson correlation and linear regression. Results showed a significant relationship between leisure time and self-regulation and goal orientation of professional athletes. The coefficient of correlation showed a very high and positive relationship between leisure time and self-regulation ($\pm=0.915$), between leisure time and goal orientation ($\pm=0.884$), and between self-regulation and goal orientation ($\pm=0.921$). Considering the significant relationship between these three parameters, it can be concluded that management of leisure time is an important factor in the career of professional athletes. For this purpose, opportunities can be provided for professional athletes to recognize different aspects of leisure time and use them in order to achieve better outcomes.

Keywords: leisure time, self-regulation, goal orientation, professional athletes.

Plato believed that physical education plays a fundamental role in education of any nation. Human requires physical activity and music as two pillars of evolution. Socrates and Aristotle emphasized sports like wrestling, dancing, swimming and boxing. In addition to sports, they also valued art, poetry and sculpture, believing that they cause a series of values and moral traits in people. The factors predicting achievements of

professional athletes have been identified over the last century. Currently, improvement of sport and life conditions of professional athletes are discussed from different aspects¹. Nutrition, time of practice and financial relaxation are elements considered by sport management systems (from coach to policy makers). By emergence of specialized fields of sports science and the latest trends in study of these problems, new phases has emerged for study of life and individual, family and social affairs of athletes. All athletes make efforts to improve their professional sports and achieve medals in global competitions and Olympics. The researchers found that sport

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achievements are not only the result of individual intelligence and hardware facilities available in social environments, but also other aspects should also be considered for professionalization of athletes². One of these aspects is the attitude to leisure time and its effect cannot be ignored on lives of professional athletes. Leisure time has different outcomes which can be identified and discussed; moreover, effectiveness of its problems can also be studied. It seems that attitude to leisure time (active or inactive) is effective on individual participation in the society and environmental activities³. Research has shown that active lifestyle and physical activities promote social relationships. By participating in team sports, one learns to make efforts to achieve group goals and prefer them to individual goals. Participation in physical activities promotes the concept of division of task; through this process, young people learn to take greater social responsibilities. Moreover, it has been shown that leisure time activity correlates with more life expectancy in a range of activity levels and body mass index (BMI) groups⁴. According to Juoni Lahti⁵, mental health is directly associated with leisure-time physical activities. Wang et al⁶ also believes that leisure-time physical activity is directly associated with reduced discomfort and increased happiness in long-term. In a group of students, psychological well-being was shown to have positive linear relationship with leisure exercise participations⁷. In another study, outdoor leisure physical activities and activity showed significant association with a lower likelihood of psychological distress⁸. Self-regulation is an internal and administrative process which enables one to carry out goal-oriented activities in a certain scheduled period. In fact, self-regulation is a goal-oriented process and makes sense when a target is involved. Here, time management which is the original indicator of order in individual and social life is also stressed. According to the studies conducted, work avoidance is less associated with achievement, while performance-approach and mastery-approach are directly associated with goal-oriented achievement. Thus, goal orientation is directly associated with self-regulation in two elements. One of the most important goals of sport systems is goal-oriented, achievement-oriented and efficient incentive which has always been of interest to researchers. Athletic behavior is usually

motivated by desire to achieve a certain goal. In fact, any behavior is a series of activities; to predict behavior of people, their incentives and needs should be identified. Gregga et al⁹ showed that athletes with a high task orientation are very motivated and have greater abilities in imagery performances. Teixeira¹⁰ showed that intrinsic motives, self-efficacy and self-regulation are the best indicators of progress towards weight control and physical activity. According to Tudor¹¹, since the relationship between elements of self-regulation and goal orientation have been proved in psychology, the relationship between leisure time and self-regulation and goal orientation of professional athletes plays an important role in lives of professional athletes and their attitudes. In times other than individual and team exercises intended by coach, professional athletes engage in activities which promote them both mentally and physically. Many processes are involved in leisure time attitude; for example, conversations, watching TV, doing recreational sports, working with computers, each of which are associated with intellectual, mental and physical success of professional athletes. Unlike previous studies, Van Dillen¹² believes that willingly performed parallel actions may decrease temptation and increases self-regulation. According to Benar¹³, work orientation and self-orientation (self-esteem) are main components of sport goals; the most important incentives are energy consumption, rank, fitness, group and team atmosphere, and skill development. Findings of this study provided a good understanding for sport managers, coaches, sport teachers and families and determined how sport incentives of adolescents, particularly energy consumption and rank, satisfy them over the life. Defining leisure time and its effect on general health and happiness caused by leisure time, Newman¹⁴ asserted that leisure time is a multidirectional concept and structure which is either objective or subjective. Accordingly, leisure time activity refers to activities done out of working time and may be associated with physical and mental engagements. Rimun defines leisure as the greatest moment of joy and the most beautiful human search. We, in fact, live in a century that we have a lot of leisure time. Modern man works less than his father and grandfather, is freer and enjoys it. French sociologist Damadzie defines leisure time as a set of activities

in which one engages willingly after being released from job, family and social obligations and duties to rest and recreate, develop knowledge, personality, talents and creativity, and participate in society freely. Shonkoff and Philips¹⁵ define self-regulation as ability to gain control of bodily functions, manage emotions and maintain focus and believe that self-regulation underlies early childhood development and it is apparent in all aspects of behavior. According to Bandura¹⁶, self-regulation is associated with health promotion and it is particularly important in health monitoring. Reid, Trout and Schwartz¹⁷ showed various evidence on the role of self-regulatory interventions in reducing maladaptive behaviors and increasing positive behaviors. Studies conducted in Iran on self-regulatory learning have been limited to the relationship between self-regulatory learning and academic achievement, motivational beliefs, self-efficacy beliefs regarding academic performance, cognitive styles and conceptual thinking. No study has been conducted so far on self-regulatory learning and physical or mental health¹⁸. Bambattni in 2008 showed that self-regulatory strategies promote intrinsic motivation and self-efficacy, which is consistent with Ramdas and Zimmerman in 2008 who showed that students who use self-regulatory strategies have higher self-efficacy and evaluate themselves more positive. Abuhamdeh and Csikszentmihalyi¹⁹ studied enjoyment of intrinsically-motivated goal-directed activities. This study found a relationship between type of activity and type of motivation. Accordingly, goal and motivation play an important role in formation. Grolnick et al²⁰ believed that parents as the first factor of sociability of children play an important role in satisfying psychological needs of children and facilitate their academic motivation. According to Moen²¹, skill orientation is directly related to the intrinsic motives, while skill orientation is indirectly related to frustration caused by intrinsic and extrinsic motives. The relationship of performance orientation is exactly opposite to goal orientation. The role of family factors in achievement motivation can be examined by self-determination theory. For example, Van Dyck²² found that motivation of sport activities has different results in different age groups. Adults may benefit more from motivational interventions, because they usually do not have enough exercise

or occupation may not allow them to exercise. Pintrich²³ asserted that different achievement goals cause many positive and negative results in the learning environment; thus, it is essential to recognize effective factors and outcomes of these goals. According to Jaackola et al²⁴, motivational atmosphere emphasizes efforts towards self-realization, personal development and success in mastery goals, which are essential factors of satisfaction. Through leisure time activity, people develop their potentials and personality regardless of workplace obligations and life requirements. Leisure time activity reflects social, economic and culture conditions of any society. Effective use of leisure time can considerably influence social and economic quality of life. Leisure time includes the time that people can spend for learning, education, social and voluntary participations. Since one can do whatever desires in leisure time, human capabilities often develop in leisure time²⁵. Most leisure-time theories have emerged in the twentieth century; many of these theories have been a response to problems caused by the industrial revolution in Europe. Currently, recreation and leisure time activities are considered as effective means to foster mental, physical and moral faculties and to prevent social distortions. Leisure time activities are so significant that they are referred as mirror of social culture. Leisure time can be a good platform for development and growth of personality. Optimization of leisure time and attitudes toward leisure time can be a concern of authorities and sociologists in different societies. In this regard, various studies have proved the positive effect of leisure time on mental and physical health. This is particularly important for professional athletes. Because of the need to achieve mental relaxation after tough exercises, professional athletes require a correct attitude toward leisure time activity. Their success is not only related to physical, technical and mental capabilities, but also depends on mastery in all aspects, including lifestyle. Muscular activities are important factor in reducing anxiety; this is effective on normal personality development. Knowledge and understanding of young people's needs, aspirations and dreams and awareness of the dangers which may threaten their character can help to plan leisure time sport for this group. Therefore, this study evaluates the relationship

between leisure time activity and self-regulation and goal orientation among professional athletes.

MATERIALS AND METHODS

This study is an applied research using descriptive-survey methodology to collect data by archival and field studies including questionnaire. The questionnaires used included LT questionnaire²⁶ to measure leisure time, SRQ-A¹²⁷ to measure self-regulation and TEOSQ² to measure goal orientation. The questionnaires including an introduction letter were sent to teams listed in Table 1, consisting of male professional athletes of judo, jujitsu, basketball and volleyball. By providing a full description, athletes were asked to fill the questionnaires. All 100 distributed questionnaires were filled completely and returned.

LT

LT was standardized by Martin Hagger²⁶. LT contains 63 questions and 4 subscales including decision-making skills (14 questions), leisure awareness skills (10 questions), social relations skills (13 questions) and self-awareness skills (25 questions) to measure attitudes toward leisure time (Table 2).

The questions are scored on a 5-point Likert scale.

Ebrahimi in 2011 used LT to address leisure time and social factors effective on leisure time. Their study show that age is the most effective and literacy is the least effective factor on leisure time.

SRQ-A

SRQ-A was standardized by Ryan and Connell²⁷. SRQ-A contains 31 questions and 4 subscales including external regulation (7 questions), introjected regulation (8 questions), identified regulation (8 questions) and intrinsic regulation (8 questions) to measure self-regulation (Table 3).

Gholamali-Lavasani in 2011 used SRQ-A to evaluate the effect of self-regulatory strategies on academic motives and self-efficacy and showed that self-regulatory techniques positively influence motives and self-efficacy of students.

TEOSQ

Task and ego orientation in sport questionnaire (TEOSQ) is used to determine whether one defines success in the sport as high skill

acquisition (task-orientation) or outperformance (ego-orientation). TSEOSQ was developed by Duda and Nichols in 1992.

TSEOSQ contains 13 questions measuring ego-orientation (6 questions) and task-orientation (7 questions). Table 4 lists subscales and items related to subscales.

The questions are scored on a 5-point Likert scale. In Iran, TSEOSQ was used by Bahrami in 2011 to evaluate the relationship between goal orientation and self-confidence sources among wrestlers.

Data Analysis

Descriptive statistics (frequency distribution tables, diagrams and percentages) and inferential statistics (Kolmogorov-Smirnov test) were used to analyze data. Pearson correlation test and linear regression were used to examine the relationship between variables.

RESULTS

Since sig >0.05 for K-S test, as shown in Table 5, data can be assumed normal. Thus, it supports the null hypothesis that data is normal. Therefore, parametric tests can be used to test hypotheses in SPSS, 16. In this study, Pearson correlation test is used to test the hypotheses.

Interpretation of Variables

Considering the normal distribution of data, one-sample t-test is used to explain variables (t-value =3; confidence interval =95%, error =5%). As shown in Table 6, leisure time is higher than average (p-value<0.05; mean =3.52); this means that athletes have good leisure time. Self-regulation is higher than average (p-value<0.05; mean=3.69); this means that athletes have good self-regulation. Goal orientation is higher than average (p-value<0.05; mean=3.63); this means that athletes have a good goal-orientation and believe that they have achieved their goals.

1) H_0 : there is no significant relationship between leisure time activities and self-regulation and goal orientation among professional athletes.

According to Table 7, Pearson correlation shows a high positive relationship between leisure time activity and self-regulation ($\hat{a}=0.915$), between leisure time activity and goal orientation ($\hat{a}=0.884$) and between self-regulation and goal orientation ($\hat{a}=0.921$). Since P-value<0.05, there

is a significant relationship between leisure time activities, self-regulation and goal orientation of professional athletes; therefore, the null hypothesis is rejected.

A glance at self-regulation literature reveals that self-regulation leads to positive relationships and applicable learning strategies, metacognitive elements and sport ingenuity²⁸, egoism and confidence among athletes²⁹ and integration of sport career and life³⁰. Coherent beliefs and emotions as well as behavioral intentions lead to purpose, motive and inner joy which form the role of athletes. According to Chirani et al³¹, basic phenomena such as leisure time have certain limitations for different people. This activity, also known as behavioral and relational activity, is associated with development of nations. This supports the relationship between leisure time activity and self-regulation and goal orientation, which is directly related to personal and

social development. Therefore, the first hypothesis is validated in full confidence. Defining leisure time psychologically, Newman¹⁴ discusses leisure time objectively and subjectively. Apparently, Newman supports the relationship between psychological variables (self-regulation and goal orientation) and leisure time. Kim et al³² reported that leisure-time physical activity benefits psychological elements such as positive affect, optimism, psychological well-being, and life satisfaction. Juoni Lahti⁵ emphasizes that mental health is directly associated with leisure-time activity, which is consistent with Abuhamdeh¹⁹ who found that goal orientation plays a major role in lives of people. Therefore, psychological factors such as goal orientation prevent time wasting and lead to use of leisure time. Emphasizing religion, Torkaman in 2006 asserts that feeling of responsibility for time with different orientations in life has been discussed in Islam. By interpreting the feeling of responsibility

Table 1. Studied population

Sport	Accommodation	Address
1. Armed Forces Judo team	NAJA Ghadir Stadium	Rasheed Street Yassami, Kordestan Highway, Tehran
2. Jujitsu Iran national team	Enghelab Sport Complex	Niayesh Highway, Tehran
3. Ground Forces basketball team in the Premier League	NEZAJA Shohada Stadium	Opposite the runwat, Ayatollah Saeidi, Azadi Square, Tehran
4. Ground Forces handball team in the Premier League	NEZAJA Shohada Stadium	Opposite the runwat, Ayatollah Saeidi, Azadi Square, Tehran

Table 2. Subscales of LT

Subscale	Item
Decision-making skills	1-14
Leisure awareness skills	15-25
Social relations skills	26-38
Self-awareness skills	39-63

Table 3. Subscales of SRQ-A

Subscale	Item
Goal setting	64-70
Personal monitoring	71-78
Self-evaluation	79-86
Personal reinforcement	87-94

for life as healthy leisure time, it is clear that leisure time is not only important, but also leads to perfection, which is the same orientation of people who are committed to a certain goal. By reviewing approaches of sociologist theorists, Mirhashemi in 2005 evaluated cultural and social dimensions of leisure time. Although these interpretations do not lead to psychology connection, the effects of

Table 4. Subscales of TSEOSQ

Subscale	Item
Ego-orientation(mastery-approach and mastery-avoidance)	95, 97, 98, 100, 103, 105
Task-orientation(performance-approach and performance-avoidance)	96, 99, 101, 102, 104, 106

self-regulatory and self-corrective behaviors are evident on improvement of living standards. This attitude toward leisure time can validate hypotheses of current study. Discipline and patience are characteristics of sophisticated and goal-oriented people. Sadreddin in 1991 defined leisure time as comfort and pleasures of life. Tavakoli in 2011 defined self-regulation as concentration, comfort and management of emotions. Therefore, there is a considerable relationship between a series of human behaviors and variables considered in the present study. According to Hashemi³³, performance avoidance decreases in goal-oriented people; this is supported by Pintrich²³ who examined self-efficacy and performance valuation and found that self-regulation promotes performance. A glance at these two studies reveals the relationship between self-regulation and goal orientation.

Table 5. SPSS output for K-S test

	LT	SRQ-A	TEOSQ
Statistic-value	1.548	1.750	1.358
Sig.	0.057	0.064	0.050

Jaakkola et al²⁴ self-improvement efforts and personal achievement or the same self-regulation with goal orientation is considerably effective on satisfaction of athletes. Benar in 2013 support the relationship between goal orientation and self-regulation and sport motives in leisure time.

2) H_0 : There is no significant relationship between leisure time activity and self-regulation among professional athletes.

As shown in Table 8, Pearson correlation shows a high positive relationship between leisure time activity and self-regulation of athletes ($r=0.915$). Since $P\text{-value}<0.05$, more objective and goal-oriented leisure-time activities are associated with higher self-regulation and vice versa. Therefore, the null hypothesis is rejected.

By reviewing the definitions presented for self-regulation, it is clear that self-regulation is defined as an intrinsic and administrative process which forces one to commit goal-oriented activities; this goal orientation teaches leads to scheduling. According to Anderson in 2001, leisure time is a new scheduling. Therefore, literature supports the hypothesis that there is a relationship between leisure time and self-regulation. Salarifar

Table 6. One-sample t-test for variables

Variable	p-value (Sig. tailed)	Mean	t-value	Standard deviation	Mean difference
Leisure time	0.000	3.52	6.214	0.832	0.52
Self-regulation	0.000	3.69	10.674	0.642	0.69
Goal orientation	0.000	3.63	6.593	0.927	0.63

Table 7. Results of Pearson correlation between leisure time, self-regulation and goal orientation among athletes

			Leisure-time	Self-regulation	Goal-orientation	Result
Pearson correlation coefficient	Leisure time	α	1	0.915**	0.884**	P<0.05 H_0 is rejected
		Sig (2-tailed)	-	0.000	0.000	
	N	100	100	100		
Self-regulation	α	0.915**	1	0.921**		
	Sig (2-tailed)	0.000	-	0.000		
Goal orientation	N	100	100	100		
	α	0.884	0.921	1		
	Sig (2-tailed)	0.000	0.000	-		
	N	100	100	100		

** Correlation is significant (2-tailed) at 0.01.

and Pakdaman³⁴ examined the relationship between self-regulation and other metacognitive elements and sports. Findings of this study reflect the significant relationship between daily life (sleeping, waking up, eating, recreating and leisure) and self-regulation. Moreover, the results show that self-regulatory skills of professional athletes are better than unprofessional athletes. Similarly, higher number of students in higher educational levels shows self-regulatory skills¹. These findings are consistent with the current study which shows

that leisure time activity is directly associated with self-regulation and predict level of self-regulatory skills.

3) H_0 : there is no significant relationship between leisure time activity and goal orientation of professional athletes.

As shown in Table 9, Pearson correlation shows a high positive relationship between leisure time activity and goal orientation of athletes ($\pm=0.884$). Since $P\text{-value}<0.05$, better leisure-time activities are associated with higher goal

Table 8. Pearson correlation between leisure time activity and self-regulation of athletes

			Leisure time	Self-regulation	Result
Pearson correlation coefficient	Leisure time	α	1	0.915**	p-value<0.05null hypothesis is rejected
		Sig (2-tailed)	-	0.000	
		N	100	100	
	Self-regulation	α	0.915**	1	
		Sig (2-tailed)	0.000	-	
		N	100	100	

** Correlation is significant (2-tailed) at 0.01.

Table 9. Pearson correlation between leisure time activity and goal orientation of athletes

			Leisure time	Goal orientation	Result
Pearson correlation coefficient	Leisure time	α	1	0.884**	p-value<0.05null hypothesis is rejected
		Sig (2-tailed)	-	0.000	
		N	100	100	
	Goal orientation	α	0.884**	1	
		Sig (2-tailed)	0.000	-	
		N	100	100	

** Correlation is significant (2-tailed) at 0.01.

Table 10. Pearson correlation between self-regulation and goal orientation of athletes

			Self-regulation	Goal orientation	Result
Pearson correlation coefficient	Self-regulation	α	1	0.920**	p-value<0.05 null hypothesis is rejected
		Sig (2-tailed)	-	0.000	
		N	100	100	
	Goal orientation	α	0.920**	1	
		Sig (2-tailed)	0.000	-	
		N	100	100	

** Correlation is significant (2-tailed) at 0.01.

orientation and vice versa. Therefore, the null hypothesis is rejected.

Leisure time provides a great opportunity for athletes to learn the knowledge required to achieve their goals. Many studies have emphasized the relationship between these two variables. Abuhamdeh¹⁹ examined the relationship between enjoyment of intrinsically motivated goal-oriented activities and goal orientation. Accordingly, there is a significant relationship between non-academic activities (leisure-time activities) and motive and goal. Pintrich²³ also found that different academic achievement goals are influenced by extrinsic factors such as leisure time. Therefore, goal orientation of professional athletes can be similar to other activities which require motive and goal. Consistent with the current study, these findings reflect the significance of leisure time planning for goal orientation.

Both Abuhamdeh¹⁹ and Pintrich²³ believe that goal-oriented people who are creative beyond their present time attempt to use the leisure time spent for recreation, sports or other things effectively to achieve their long-term and short-term goals. However, it is logical to believe that leisure time activity is positively related to goal orientation, which is supported by these findings.

3) H_0 : there is no significant relationship between self-regulation and goal orientation among professional athletes.

As shown in Table 10, Pearson correlation shows a high positive relationship between self-regulation and goal orientation of athletes ($\pm=0.920$). Since $P\text{-value}<0.05$, the correlation is significant at 99% confidence; thus, higher self-regulation is associated with higher goal orientation and vice versa. Therefore, the null hypothesis is rejected.

Ames³⁵ defines goal orientation as an integrated pattern of beliefs, evidence, and emotions which determine behavioral intentions and cause higher approach to some positions in which one acts in a certain way. Self-regulation promotes the motive and excitement required for achieving a goal. Khademi and SAIF³⁵ found a positive and significant relationship between goal orientation and self-regulation and predictable academic achievement. Azimi³⁷ confirmed the relationship between self-regulation and goal orientation and academic performance and proved

the significant effect of academic performance improved by positive self-regulation and its relationship with goal orientation and self-efficacy of university professors. In a more recent study it was found that goal orientation is significantly and positively correlates with self-regulation learning strategies (Jalu, 2015), a mechanism that athletes can benefit from in their training sessions. These findings are consistent with the current study and support the results.

In general, self-regulation and goal orientation are two psychological factors; the above studies supports their relationship. Therefore, current findings are validated.

Moreover, findings of questionnaires support this relationship. For example, questions related to personal monitoring (self-regulation) are considerably similar to questions related to egoism (goal orientation) or questions related to mastery-approach (goal orientation) are evidently similar to questions related to self-improvement (self-regulation). As noted earlier, these similarities are due to the similar context of these psychological definitions.

DISCUSSION AND CONCLUSION

Leisure time literature indicates that leisure time activities contribute to development of information and communications, personal training, social participations and improvement of job creativity. Therefore, current findings are consistent with studies reflecting the role of self-regulation and goal orientation in leisure time activities. According to the results obtained, there is a significant relationship between leisure time activities and self-regulation and goal orientation among professional athletes. Moreover, there is a direct and significant relationship between leisure time activities and self-regulation, leisure time activities and goal orientation, and self-regulation and goal orientation among professional athletes. According to Elliot regarding the use of goal orientation for students or Pintrich regarding the context required for self-regulation of students, opportunities can be provided for professional athletes to recognize different aspects of leisure time, self-regulation and goal orientation. Then, practical results can be provided by selecting athletes and extracting reference and experiment

groups. It is noteworthy that the results of current study were expected, because showed, self-regulation promotes individual potentials. By application of these results for professional athletes who are hardworking, diligent and active people, positive outcomes can be achieved. Moreover, proper leisure-time management models can be developed using successful experiences of athletes who used their leisure time optimally to improve their career. Future studies can compare leisure time activity, self-regulation and goal orientation in populations studied here and other populations and measure the relationship between leisure time activity, self-reg.

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