

# The relation between service quality of sports camps and elite athletes' satisfaction of the national teams' freestyle & Greco-Roman wrestling

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## Abstract:

**Purpose:** One of the most important factors influencing satisfaction of athletes in sports camps is the quality of services provided therefore. The main objective of this study is investigation of relation between service quality and elite athletes' satisfaction in free style and Greco Roman wrestling national teams. **Material:** Methodology of the research was descriptive correlation, fulfilled as a field study. The statistical population included all athletes invited and presented in the national camps of wrestling (free and Greco Roman wrestling) in different ranges of ages in 1993 and the sample size is equal to the statistical population (N=160). The data collection tool was a questionnaire made by the researcher. To analyze the data, descriptive and inferential statistics as Kolmogorov-Smirnov, Kruskal-Wallis, Friedman, Binomial test and Regression calculated by SPSS (Statistical package for social science) V.22 are used. The findings showed that there was a significant relation between service quality variables and the athletes' satisfaction. In addition, according to Friedman test, there is not a significant difference in the mean of ranks in service quality variables of training camps. **Results:** The results of binomial test showed that the quality of services in the training camps left much to be desired. The Demography results indicated that the athletes presented in the camps during longer periods were more satisfied with quality of services provided. **Conclusion:** According to results, it can be said that, one of the most important factors influencing on satisfaction of athletes in Sports camps, was quality of provided service. Therefore it is important to regard satisfaction of athletes as an essential issue in order to find the gaps and provide proper services.

## Keywords:

quality of services, sports camps, satisfaction of athletes, wrestling.

Гохарростами Хамід Реза, Ходходи Абкенари Бехнам, Ефтехари Озра, Ходаярі Аббас. Соотнесеніе между качеством предоставляемых услуг в спортивных лагерях и удовлетворением элитных спортсменов национальных команд вольного стиля и греко-римской борьбы. **Цель:** Одним из наиболее важных факторов, влияющих на удовлетворенность спортсменов в спортивных лагерях является качество предоставляемых услуг. Основной целью данного исследования является изучение взаимосвязи между качеством предоставляемых услуг и удовлетворенностью элитных спортсменов по вольной и греко-римской борьбе национальных сборных команд Ирана. **Материал:** Методика исследования включала сравнительный анализ описательного характера, выполненный в виде обследования на местах. Статистическая совокупность включала всех спортсменов, приглашенных и представленных в национальных лагерях борьбы (вольной и греко-римской) в разных диапазонах возрастов (от рождения в 1993 году). Выборка составила 160 спортсменов (n = 160). Инструментом исследования был сбор данных по опроснику, подготовленного исследователем. Для анализа данных использовались различные критерии (Колмогорова-Смирнова, Крускала-Уоллиса, тест Фридмана, биномиальные уравнения и уравнения регрессии), рассчитанные с помощью SPSS (статистический пакет для социальных наук) V.22. **Результаты:** исследования показали, что существует значимая связь между переменными качества предоставляемых услуг и удовлетворенностью спортсменов. Кроме того, согласно тесту Фридмана, не обнаружено значительных различий в среднем ранге в переменных качества обслуживания учебно-тренировочных сборов. Результаты биномиального теста показали, что качество услуг в учебных лагерях оставляет желать лучшего. Демографические результаты показали, что спортсмены, представленные в лагерях в течение более длительных периодов, были более удовлетворены качеством предоставляемых услуг. **Выводы:** результаты показывают, что одним из наиболее важных факторов, влияющих на удовлетворение спортсменов в спортивных лагерях, было качество предоставляемых услуг. Поэтому важно рассматривать удовлетворение спортсменов в качестве важного вопроса, с тем чтобы найти пробелы и предоставить соответствующие услуги.

Гохарростами Хамід Реза, Ходходи Абкенари Бехнам, Ефтехари Озра, Ходаярі Аббас. Співвідношення між якістю послуг, що надаються в спортивних таборах і задоволенням елітних спортсменів національних команд вільного стилю і греко-римської боротьби. **Мета:** Одним з найбільш важливих факторів, що впливають на задоволеність спортсменів у спортивних таборах є якість послуг. Основною метою даного дослідження є вивчення взаємозв'язку між якістю послуг, що надаються і задоволеністю елітних спортсменів з вільної та греко-римської боротьби національних збірних команд Ірану. **Матеріал:** Методика дослідження включала порівняльний аналіз описового характеру, виконаний у вигляді обстеження на місцях. Статистична сукупність включала всіх спортсменів, запрошених і представлених в національних таборах боротьби (вільної і греко-римської) в різних діапазонах віку (від народження у 1993 році). Вибірка склала 160 спортсменів (n = 160). Інструментом дослідження був збір даних за опитувальником, підготовленого дослідником. Для аналізу даних використовувалися різні критерії (Колмогорова-Смирнова, Крускала-Уолліса, тест Фридмана, біноміальні рівняння і рівняння регресії), розраховані за допомогою SPSS (статистичний пакет для соціальних наук) V.22. **Результати:** дослідження показали, що існує значущий зв'язок між змінними якістю послуг, що надаються і задоволеністю спортсменів. Крім того, згідно з тестом Фридмана, не виявлено значних відмінностей в середньому ранзі в змінних якості обслуговування навчально-тренувальних зборів. Результати біноміального тесту показали, що якість послуг в навчальних таборах залишає бажати кращого. Демографічні результати показали, що спортсмени, представлені в таборах протягом більш тривалих періодів, були більш задоволені якістю послуг, що надаються. **Висновки:** результати показують, що одним з найбільш важливих факторів, що впливають на задоволення спортсменів у спортивних таборах, була якість послуг, що надаються. Тому важливо розглядати задоволення спортсменів в якості важливого питання, з тим щоб знайти прогалини і надати відповідні послуги.

якість послуг, спортивні табори, задоволення спортсменів, боротьба.

## Introduction

Although rather long time has passed from bringing up the issue of the quality of services and methods relating to its evaluation and measurement, considering the issue has

been increasing and its role has gained a great importance due to growing significance of services in the economies of all countries [2]. A number of studies show that during last two decades, interest towards the quality of services has also moved to sport industry [27]. Sport organizations possess special service features which differentiate them

from the other service organizations including banks or insurance companies. The first feature is that the cost of sport and recreational activities are optional. The second feature implies that usually, the consumer is attracted by the sport organizations during his/her free time; and the third one is that among the activities of sports organizations, there exist emotional investments such as supporting a team, belonging to a sport club and the health improvement. Probably, these factors induce more expectations from sports organizations rather than service providers of the other companies. Therefore, the different nature of services relative to products and the special features of sport industry cause more contemplation to be focused on understanding the expectations of the consumers of sports organizations and the distance between the expectations and perceptions [23]. Satisfaction of the athletes in sports camps is an important factor of their retention, stability of sports organizations and the success of that organization. Satisfaction makes the athletes to remain in sport camps. On the one hand, quality of the services in sports industry causes the society to gain achievements regarding economy, culture, knowledge bases and social demands [6]. Awareness about the methods of satisfying athletes' needs leads to satisfaction of them and hence, brings balance, mental comfort and efficiency. Although getting general knowledge about all dimensions of athletes' satisfaction in a direct and accurate manner is really difficult, awareness of these behavioral aspects confute the trainers to take a fundamental step towards mental maintenance and retention of the athletes by teaching and practicing good behaviors [24]. If there is no proper plan for establishment of the camps and dispatching the athletes to sport camps, surely a great deal of untargeted costs, physical and behavioral insecurities and many other problems will appear and cause deviation from sport goals. Provision and preparation of sport equipment, instruments and facilities and also, proper usage of them are some abilities which can help the sport executive managers to attract trainers and athletes to athletic activities and exercises and to reach the goals. Possessing accurate knowledge about modern facilities, equipment and technologies can assist managers to provide opportunities for consultation; reduce unnecessary costs and use standard equipment [14]. According to the important influence of the quality of sport camps on the triumph of athletes, there exists a necessity in conducting the present study in order to consider the least needs of the athletes in sport camps and to help in establishment of regular and high-quality camps. In the following, a number of the research conducted on this filed will be mentioned.

Mirzayi (2006) has conducted a research titled "the comparison of the profile of behavioral modes of wrestlers in junior and senior national teams in two fields of freestyle and Greco Roman wrestling". In this research, he has concluded that quality of sport camps rendered rather significant impact on athletes' satisfaction. Akhlaghi (2011) identified and compared the levels of athletes' satisfaction (Freestyle and Greco

Roman wrestlers) in the clubs of Khoozestan Province in terms of three issues (performance of managers, service and facility provisioning and performance in public). He showed that the wrestlers were not satisfied with these three kinds of services. According to Shonk (2008), the quality of services in sports camps includes the quality of accessibility, quality of sport association, quality of the domicile and quality of the champions. Huyen (2011) has conducted a research, titled "Investigation of the Consumers' Satisfaction in Kukula Body-Building Club"; and he has found that the consumers are generally satisfied with the services provided by the club. Nicholas et al (2013) has conducted a research, titled "The Role of Quality of Services and Satisfaction in Predicting the Behavioral Goals of the Spectators in Professional Football"; they have found that the quality of services influences on level of satisfaction, and that these two factors rendered great impact on behavioral intentions.

*Purpose.* One of the most important factors influencing on satisfaction of athletes in sports camps is the quality of services provided therefore. The main objective of this study is the investigation of relation between service quality and elite athletes' satisfaction in free and Greco Roman wrestling national teams.

#### **Material and Methods**

*Participants.* The statistical population (160 athletes) includes all the invited athletes who are present in national camps of freestyle and Greco Roman wrestling; these athletes were selected from different age categories. The sample population is equal to the statistical population (n=160).

*Research Design.* The current research was based on a descriptive-correlational research project and shall be regarded as an applied one, considering the purpose which was accomplished on the basis of surveys and field study. The data were collected in two stages; the first with the help of questionnaire, prepared as a tool for collecting the data. At the second stage, the questionnaires were reviewed and verified by 7 experienced trainers in the field of sport management; the stability level of it was defined by Cronbach's alpha coefficients, and then they were used. The questionnaire was divided into two parts (quality of services and athletes' satisfaction). The first part is designed to collect the information from respondents and it consists of 8 questions. The second part includes 40 questions which are completed by variables of service quality with 35 items and by variables of athletes' satisfaction with 5 items. Therefore, 160 questionnaires have been distributed, collected and analyzed in order to organize data analysis and fulfill it.

*Statistical Analysis.* To analyze and investigate the data, descriptive statistics has been used to describe the variables, items and indices. At the level of inferential statistics, Kruskal-Wallis, Binomial, Regression and Kolmogorov-Smirnov are performed to investigate the normality of the data. According to lack of normality in the data, Spearman Correlational Coefficient is used to study the relationship between the variables.

### Results of the research

Personal characteristics of respondents are briefly presented in Table 1.

After performing Kolmogorov-Smirnov test (KS) and making sure about non-normal distribution of the data ( $P < 0.05$ ), Friedman test has been executed. The results of this test, presented in Table 2, showed that there were no significant differentiation between average rank of the variables of dimensions of service quality in sport camps; because significance level equals to  $P < 0.10$  which is higher than error level ( $P < 0.05$ ). In other words, there is no significant differentiation between dimensions of service quality in sport camps. According to these results, Quality of the Trainer and Quality of Non-Sport Equipment have gained the highest and the lowest average ranks, respectively.

Moreover, the result, obtained through investigation of correlation between dimensions of service quality in sport camps and athletes' satisfaction are presented in Table 3.

The results of correlation analysis show that there is a positive and significant relationship between dimensions

of service quality in sport camps (except in dimension of discipline and regularity, and dimension of non-sport equipment) and athletes' satisfaction. In order to determine which one of these 7 dimensions of service quality play the most important role in predicting the athletes' satisfaction and which one of them is the better determinant for the variance of consumers' satisfaction, a step-by-step multi-variable regression analysis has been performed. The data show that in the first step, the dimension of interactive quality of service quality is entered into regression model to explain the level of athletes' satisfaction variance; also, 63% of the variances are explained solely. At the second step, the dimension of exercise plan is integrated into the model and it brings correlational coefficient up to 0.73% and changes the coefficient of determination from 0.53 to 0.55. At the third step, the dimension of non-sport equipment is accompanied by the model and the three dimensions of interactive quality, exercise plan and non-sport equipment can explain 74% of the variance of athletes' satisfaction, simultaneously. At the fourth step, correlational coefficient and the coefficient of

**Table 1.** Description of Personal Characteristics of Respondents

Variable	Count	Percentage	Variable	Count	Percentage		
Age	Under 20 years	57	34/4	Sport	GRECO	73	47/2
	21 to 25 years	42	29/3		Wrestling	87	52/8
	26 years and over	61	36/3	Attending courses and sports camp	Less than 5 times	24	12/4
Sports experience	Under 5 years	29	16/7		6 to 10 spring	41	24/6
	6 to 10 years	40	24/4		11 to 15 spring	39	22/8
	11 to 15 years	48	29/6		16 to 20 spring	34	20/4
	15 years and over	43	28/3	Over 20 times	32	19/8	

**Table 2.** Results of Friedman Test and the Conditions of Distribution of the Data Regarding Research Variables Obtained by Kolmogorov-Smirnov Test

Quality of Services	Average Rating	SD	Sig	Chi	Df	K-S
Sports equipment	2/21	0/45	0/10	10/6	6	2/10
non Sports equipment	2/20	0/39				1/54
Quality of coach	2/37	0/42				2/22
Interaction of Quality	2/20	0/41				1/95
Workout program	2/29	0/38				1/92
Discipline	2/35	0/58				1/37
extra service	2/32	0/52				2/43

**Table 3.** Matrix of Spearman Correlation between Dimensions of Service Quality in Sport Camps and Athletes' Satisfaction

Variable	Quality of coach	Workout program	extra service	Discipline	Sports equipment	Correlation of Quality	non Sports equipment
statistical indicators							
R	0/042	**0/405	**0/282	**0/045	**0/252	**0/623	0/001
Sig	0/001	0/001	0/001	0/49	0/001	0/001	0/99

\*\* Significant at  $P < 0.001$

determination reach to 0.75 and 0.56, respectively, due to entrance of the dimension of extra services. Regression analysis has been terminated at the fourth step and three dimensions of sport equipment, quality of the trainer and discipline have been removed from the regression model. Accordingly, 56% of variance of the wrestlers' satisfaction is derived from the four dimensions of interactive quality, exercise plan, non-sport equipment and extra services.

According to the report presented in Table 4, significance level of R is below 0.05 during the first step. Therefore, the first model is verified. In the second, third and fourth models also, level significance is below 0.05 and accordingly, the second, third and fourth models are verified, too.

In model 1, the dimension of interactive quality is integrated into regression model; Standard Beta is set at 0.662 which is significant. In model 2, exercise plan is added to the model, in addition to interactive quality; here, Standard Beta is decreased to 0.464. In model 3, non-sport equipment is added to the model in addition to interactive quality and exercise plan; here, Standard Beta is calculated as -0.158. In model 4, extra service is added to the model in addition to interactive quality, exercise plan and non-sport equipment; here, Standard Beta is calculated as -0.128. The negativity of Standard Betas in the third and fourth models shows that in the presence of the first and the second variables (interactive quality and exercise plan) which have positive Standard Betas, the third and fourth models (non-sport equipment and extra services) have no significant influence on explanation of variance level of athletes' satisfaction. Also, the Beta of

all the four models are significant ( $\text{sig} \leq 0.05$ ).

According to the fact that the distribution of the data is not normal, Binomial test has been executed in order to investigate the condition (good, moderate, weak) of the dimensions of service quality and athletes' satisfaction with cut point of 3.66 and a five-valued spectrum of Likert. Average below 2.33 shows weak condition; average between 2.34 and 3.66 shows moderate condition and average higher than 3.66 shows good condition.

As we can see in Table 5, the average of all questions are below the good level and sport services are not in desirable mode; therefore, we use the findings presented in Table 2 with cut point of 1.33 to calculate how many of the members in sample population consider the dimensions of service quality in the range of moderate to weak. The results of Binomial test with cut point of 1.33 are presented in Table 6.

As we can see in Table 6, 101 members of the sample population believe that the conditions of dimension of sport equipment is below moderate (weak) and 59 members of them have reported that this dimension is moderate. The result of Binomial test for sport equipment shows an average value of 2.21, which implies that this dimension is perceived as moderate. In terms of non-sport equipment, 110 member of the sample population believe that the conditions of this dimension is below moderate (weak) and 50 member of them have reported that this dimension is weak. The results of Binomial test for non-sport equipment show an average of 2.20 which implies weakness of the quality of this dimension. In terms of quality of the trainer, 102 members of the sample

**Table 4.** Final Results of Regression Analysis in the Form of Step-by-Step method

Phase	Variables in regression model	R	R <sup>2</sup>	Beta	B	Sig
1	Interaction of Quality	0/63	0/404	0/662	0/563	0/001
2	Interaction of Quality and Workout program	0/73	0/535	0/464	0/423	0/001
3	Interaction of Quality, Workout program and non Sport equipment	0/74	0/550	-0/158	-0/140	0/001
4	Interaction of Quality, Workout program, non Sport equipment and Extra Service	0/75	0/561	-0/128	-0/085	0/05

**Table 5.** Result of Binomial Test for Dimensions of Service Quality with Athletes' Satisfaction and Cut Point of 3.66

Quality of Service	Average	Standard deviation	Reports lower number of points3/66	Reports Upper number of points3/66	Significance level
Sport equipment	2/21	0/454	160	0	
Non Sport equipment	2/20	0/398	160	0	
Quality of coach	2/37	0/424	160	0	
Interaction of Quality	2/20	0/415	160	0	
Workout program	2/29	0/386	160	0	0/001
Discipline	2/35	0/588	160	0	
Extra Service	2/32	0/529	160	0	
Satisfaction	2/44	0/498	160	0	

\* Significant at  $P \leq 0.05$

population think that the conditions of this dimension is below moderate (weak) and 58 members of them have reported that this dimension has a moderate quality. The results of Binomial test for the dimension of quality of the trainer show the weakness of this dimension in the sample population. In terms of interactive quality, 100 members of the sample population have reported that this dimension has a below-moderate (weak) quality and 60 members think that this dimension is moderate. The results of Binomial test for the dimension of interactive quality show an average value of 2.20 which implies the weakness of this dimension in our population. In terms of exercise plan, 89 members of the sample population have reported that this dimension has a below-moderate (weak) quality and 71 members think that this dimension is at moderate level. The results of Binomial test for exercise plan show an average of 2.29 which implies the weakness of this dimension in our population. In terms of discipline and regularity, 81 members of the sample population have reported that this dimension has a below-moderate (weak) quality and 79 members think that this dimension

is at moderate level. The results of Binomial test show an average value of 2.35 which implies the weakness of this dimension in our sample population. In terms of extra services, 70 members of the population believe that the condition is below moderate (weak) and 90 members of them have reported that this dimension is at moderate level. The results of Binomial test for this dimension show an average value of 2.32 which implies the moderate level of this dimension in our sample population. In terms of satisfaction, 89 members of the population think that this dimension is posited at below moderate (weak) level and 71 members of them have reported that this dimension has a moderate quality. The results of Binomial test for this dimension show an average of which implies the weakness of this dimension in our population.

In tables 7 and 8, the results of Kroskal-Wallis test are presented for the research sample to investigate the difference between different athletes' viewpoints.

The results of Kroskal-Wallis test, presented in table 7, show that there is a significant differentiation between the average rank of the athletes' satisfaction with quality

**Table 6.** Result of Binomial Test for Dimensions of Service Quality with Athletes' Satisfaction at Cut Point of 1.33

Quality of Service	Average	Standard deviation	Reports lower number of points3/66	Reports Upper number of points3/66	Significance level
Sport equipment	2/21	0/454	101	59	
Non Sport equipment	2/20	0/398	110	50	
Quality of coach	2/37	0/424	102	58	
Interaction of Quality	2/20	0/415	100	60	
Workout program	2/29	0/386	89	71	0/001
Discipline	2/35	0/588	81	79	
Extra Service	2/32	0/529	70	90	
Satisfaction	2/44	0/498	89	71	

\* Significant at  $P \leq 0.05$

**Table 7.** Comparison of prioritization of satisfaction level in elite athletes of National Wrestling Team in terms of the quality of services in sport camps at different age categories

Age groups	Average Rating	Chi square	Degrees of freedom	Significance level
Less than 20 years	71/09			
21 to 25 years	82/50	5/22	2	0/073
26 years and over	92/63			

**Table 8.** Comparison of prioritization of satisfaction level in elite athletes of National Wrestling Team in terms of the quality of services in sport camps during different times of their presence in camp

Courses attended sports camp	Average Rating	Chi square	Degrees of freedom	Significance level
Less than 5 times	78/55			
Between 6 to 10 times	76/86			
11 to 15 times	76/14	11/46	4	0/022
16 to 20 times	132/57			
more than 20 times	121/75			

of the sport services, in different age categories. This is because the level of significance is  $P < 0.073$  which is below error level of  $P < 0.05$ . In other words, there is a significant differentiation between the viewpoints of the athletes in different age categories.

Moreover, the results of Kroskal-Wallis, presented in table 8, show that there is a significant differentiation in average rank of athletes' satisfaction with the quality of sport services during different times of their presence in sport camps; because level of significance is  $P < 0.022$  and it is below error level of  $P < 0.05$ . In other words, there is a significant differentiation between viewpoints of the athletes who have been in sport camps during different times.

### Discussion

The analysis of research findings reveals that there is a significant relationship between dimensions of service quality and athletes' satisfaction (except in dimension of discipline and regularity and in dimension of non-sport equipment). The findings of the current research imply a significant and positive relationship between service quality in sport camps and athletes' satisfaction; the correlational coefficient is calculated as 0.615. This means that there exists a significant differentiation between dimensions of service quality in sport camps. The results of the current study are complied with researches of Saatchiyan et al (2010), Fallahi et al (2011), Ali Dust Ghah-farrokhi and Ahmadi (2012), Honari et al (2014), Lim (2006), Liu (2008), Lin (2008). Moreover, the relationship between demographic characteristics and athletes' satisfaction implies a significant statistical relationship between demographic characteristics (age, times of being present in sport camps) with satisfaction level (table 7 and 8). These finding are complied with the researches of Liu (2008) and Eftekhari et al (2015), regarding the variable of age; so that the higher the ages of the athletes are, the lesser their needs and the higher their satisfaction level would be with the available service, and vice versa. But these findings are not consistent with the research of Moradi et al (2013) in which there is found no significant statistical relationship between demographic characteristics and satisfaction level in athletes. Furthermore, the findings show a significant relationship between the number of periods being present in the camp and level of satisfaction in the athletes; so that the higher the numbers of these periods is, the higher their satisfaction level would be relative to the athletes who have had limited performance in the sport camps. According to the findings, we can conclude that there is a positive relationship in perceived quality of sport services in sport camps and athletes' level of satisfaction with the number of times (periods) they attend in the camps. This is because occurrence of satisfaction cause the athletes to attend in the next camps.

The results of Binomial test show that the average of all the responses are below the desired level and the quality of sport services is not good at all. All average values of the respondents' state witness that the quality of services in sports camps is at weak level, except sport

equipment, which is reported as moderate. The results of regression test also reveal that different dimensions of service quality can predict the level of satisfaction of wrestlers in national camps, so that four dimensions of interactive quality, exercise plan, non-sport equipment and extra services can explain 56% of the variance of athletes' satisfaction. Among these four dimensions, interactive quality of the service has gained the highest value of correlational coefficient and, therefore, it plays an important role in athletes' level of satisfaction. Hence, the managers and trainers and authorities of the sport camps can provide various services in line with the athletes' needs and can enhance communication with the athletes in the sport camps more than ever, in order to reach consumers' satisfaction.

The other results of the research show that there is a significant relationship between quality of sport equipment and athletes' level of satisfaction; these findings are consistent with the researches of Gohar Rostami (2007) and Hopson (2002). Hopson believes that providing high-quality services is one the most important factors influencing on level of athletes' satisfaction; moreover, he states that providing proper-quality equipment at the camps and encouraging the athletes to attend exercises are irrefutable necessities which make the athletes participate in the activities with more power and better performance. On the other hand, variety of sport equipment is important due to two reasons: first, sports equipment should improve the quality of athletes' performances and second, they must guarantee the health of athletes. Due to this fact, sports equipment is of a great importance in different sport fields. Seye Javadin et al. (2010), Chia Chin (2002) and Ting (2004) also believe that the quality of services and equipment can directly influence on the athletes' level of satisfaction and it can be regarded as foundation for satisfying the consumer.

Moreover, there is no significant correlation between non-sport equipment and the athletes' level of satisfaction; but some factors such as transportation vehicles, heating and cooling systems, quality of the place in which the exercises are held and etc. can have a significant impact on level of satisfaction in the athletes' attending the camps. The other results show that there is no significant relationship between quality of coach and athletes' level of satisfaction; the correlation coefficient is calculated as 0.042. These findings are not consistent with Warren (1994); because Warren has proved that the qualities of training and relationship between coach and athletes are important dimensions of athletes' level of satisfaction. We can attribute this lack of consistency to a number of research samples; because as Lin (1991) says, the number of samples has an influence on the quality of relationship held between different variables. In a small sample population, the relationship might be reported as significant, while in there is no relationship found in big samples. According to the research samples, presence of a psychologist trainer in the camp has guaranteed the highest level of satisfaction among other items of this dimension. Because long-terms camps cause a lot of mental pressure

such as stress and anxiety for the athletes and since most of the athletes attend in the professional sports during teenage periods and are in sensitive situations and since we have watched a lot of champions in which the players show weak performances due to grave mental spaces of the plays and because most of the decisions of the athletes are made in severe circumstances, then it is desirable for the athletes to experience exercising in difficult situations; taking advantage of the psychologist trainers in the team can be beneficial. Furthermore, the results reveal that there is a significant and positive relationship for the dimensions of interactive quality, exercise plans and discipline and regularity with athletes' level of satisfaction. In order to hold a friendly environment among the athletes attending in camps, group coherence is needed. The more cohesive groups show better performances than the ones with less solidarity. In a sport team also, the conditions would be the same and higher solidarity leads to higher personal satisfaction in the athletes. These findings are consistent with the researches of Rhymers and Cheladoray (1998) in which satisfaction with individual and team performance and satisfaction with exercises and training process are considered to be the determining factors of athletes' satisfaction; moreover, Omand (2005) believes that team performance renders great influence on athletes' satisfaction. At the dimension of exercise plan, the importance of choosing proper and diverse times for activities during the camps can help the athletes to regulate their biological clock, temperature and hormone secretion, correctly. On the other hand, allocation of diverse times of exercising to the professional athletes is really important. This is because doing exercises at the final hours of a day (evening) can help the athletes to be active during the times in which their body possess the highest level of physical readiness and to achieve the best outcome. In this way, even if the champions are held at the initial or final hours of a day, the athletes think that they are still spending the evening times and this imagination which is derived based on their biological clocks of their bodies in simulated environments, help the athletes to exhibit better performances during competitions.

Overall, a special system and structure based on scientific principles for the exercises can be useful for developing different skills (physical, technical-tactical, mental) of the athletes. In his study, Gohar Rostami (2007) introduces satisfaction with exercise plans as an influential factor of consumers' satisfaction in sport camps; his findings are compliant with the present study. On the other hand, one the most important issues in sport camps is regularity/discipline. The athletes' attending camps must follow their exercises regularly, in addition to holding the camp sessions. Coaches also should supervise the camps and the procedure of athletes' training and activities, based on predefined plans; they should also, consider the discipline in their schedules. Discipline is an important pillar of athletic sport. The experiences imply that discipline brings great incentive and athletic spirit for the athletes.

### Conclusions

According to the results of present study and significance of correlation between variable of service quality and athletes' level of satisfaction, it is recommended to the executive managers of the camps to measure the level of service quality continually and periodically and meet the needs of athletes by doing their bests. This is because of the fact that lack of attention towards athletes' level of satisfaction can cause protesting, negligence and leaving. Therefore, it is desirable to pay considerable attention to this issue; and coaches and authorities must try their best to provide and maintain the satisfaction of athletes, emphasizing at provisioning of desirable and high-quality service, because higher levels of satisfaction can bring a sense of belonging to team and dependence on team; better performance, reduction of absence and even not leaving the team; finally, it ensures success and efficiency. Therefore, it is recommended to coaches and authorities of sports camps to realize proper targeted supports and emphasize on influential aspects of motivations and sports commitment, and to direct the athletes' level of satisfaction in order to create their highest level of satisfaction and get the best outcome and success.

### Conflict of interests

The authors declare that there is no conflict of interests.

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