

Saeed Javed *

Abida Naseer †

Adnan Asghar ‡

Abstract: The primary objective of present study was to investigate the impact of social support and aggressive behaviors on sports achievements of student athletes. The existing research was based on quantitative measures in nature. The population of the present research was comprised of all student athletes of two public sector universities of Pakistan. The sample size was consisted of 300 survey cases. Researchers used survey questionnaire as an instrument for the purpose of data collection. Descriptive statistics, correlation coefficient of Pearson, and multiple regression analysis were considered suitable statistical and analytical techniques which were utilized to find out the results from the collected data. The results investigated that social support had significant and greater impact than aggression on sports achievement of student athletes. It was concluded that if proper social support had been provided to university athletes, this might have reduced the level of aggressiveness from the young adults.

Key Words: Social Support, Aggression, Sport Achievements, Athletes, Pakistan

Introduction

Sports are physical and psychological activities of human beings which help to increase human interest, health, and decrease tension and diseases as well. Society cannot gain its desires without developing wholesome surroundings for sports. Players are those individuals who claim the success/failure considered as performance in sports. In the event as failure, the performers are responsible for the outside conditions. At the same time as getting success, they privilege that their own efforts are considered in. Sports achievement is the result of a numbers of factors such as physical strength, skill condition, and strategic effectiveness. Low ability in sports might end in individuals undergoing concern ([Jagacinski & Nicholls, 1984](#)) and have an adverse

effect ([Nicholls, 1984](#)).

Social support plays an important role in reducing stress in athletes. Social support is a type of help and assistance which one gives to others when one is there to care for and that one is a part of the social circle where one lives and grows ([Bianco & Eklund, 2001](#)). The term provider and receiver are used for the social support. A provider is a character who gives the social support and a receiver/recipient is also a character who receives the social assistance.

The role of parents, siblings, peers, and sports teachers may contribute moderately no longer participation of efficacious players in sports and achievement. Social support from coaches, teammates, family, buddies, and team

*Assistant Professor, Department of Physical Education and Sports Sciences, The Islamia University of Bahawalpur, Bahawalpur, Punjab, Pakistan. Email: dr.saeed.javed@gmail.com

†Department of Physical Education and Sports Sciences, Govt. College University Faisalabad, Faisalabad, Punjab, Pakistan.

‡Associate Lecturer, Department of Physical Education and Sports Sciences, The Islamia University of Bahawalpur, Bahawalpur, Punjab, Pakistan.

of workers is taken into consideration to influence athletes' cognitive, emotional, and behavioral elements in a nice way ([Freeman, Rees, & Hardy, 2009](#)). The support that one gets from the family, friends, neighbors, and organizations may be considerable. Social support is known as the social interaction aimed at inducing positive outcome ([Bianco & Eklund, 2001](#)). Several parents take fully interest regarding to their children's sports whereas, some of them suppose that it is not their job ([Xhakaza, 2005](#)). The present study intends to find out the relationships of social support and aggression constructs with sports achievements of university players.

Social support performs a central character in individual's working of cautious self-esteem ([Wezyk, 2011](#)). Family constitutes an important preliminary element of socialization. Several kinds of parental affect have been recommended within the literature. For instance, dad and mom can provide instrumental aid, emotional support informational guide companionship assists and validation assist ([Shen, Centeio, Garn, Martin, Kulik, Somers, & McCaughtry, 2018](#); [Medlin & Green, 2009](#)). Motivation from non-public goal is the motivation that a person has in reaction to the goals that she or he units. This checks the potential and willingness of the character to growth player performance within the task according to the goals set ([Shariff, Javed, & Salimin, 2016](#)).

People behavior alternate is related to their physical and social surroundings. Researchers have identified many elements that have an impact on children's conduct, which include peers, instructors, and parents. Social assistance from parents has been diagnosed as a central characteristic associated to teenagers' physical activity participation ([Shen et al., 2018](#)). Social cultural influence as together with "social support" interacts with private elements to facilitate resilience technique ([Fletcher & Sarkar, 2012](#)).

[Katagami and Tsuchiya \(2016\)](#) conducted a study on received support permits to measure

the notably precise form of support behavior that the athlete truly obtained from others and its outcomes, which results in similarly knowledge of greater functional aspects of social assist compared to perceived guide. The significance of perceiving available aid is on athletes' health, perceived support is sometimes questioned to recognize because of social support. Social guide represents variety of purposeful interaction among parents and youngsters, and the understanding of parents or guardians about their children's behavior regarding the exercise of bodily hobby appears to play a critical function inside the energetic conduct of youngsters ([Greca, Arrudaa, Coledama, Junior, Teixeira, & Oliveiraa, 2016](#)). Parents can offer emotional support that is Instrumental for their children ([Anderson, Bugayev, Gaetz, Guglielmina, & Kirkegaard, 2009](#)). Siblings are considered those individuals who have a gregarious, adjacent relationship with performers, and they have an impressive impact on each other ([Allbaugh, Bolter, & Shimon, 2016](#)).

Peers advocate/serve as friends to version, coach, and aid parents in their journey to understand, address, recommend for and negotiate various carrier structures ([Davis, Scheer, Gavazzi, & Uppal, 2010](#)). Their relationships with sports teacher, players feel of playing good with their instructors and their affective involvement in relationships with sports teachers. It additionally correlates with the traditional dimensions of religion, sibling, and children from different cultures ([Karcher, 2011](#)).

Aggression is not only an act to hurt individuals but also deals with an emotional condition. It represents the anger that has an effect on athletes' performance as well. Aggression can be physical or is communicated verbally or non-verbally ([Kumar, 2015](#)). However, those athletes, who react aggressively, lose their abilities to perform well in sports. Aggression can be a cause of physical harm or mental distress.

Aggression is the demonstration of annoyed and adverse manners that is considered powerful thing in the performance of players ([Mashhoodi, Mokhtari, & Tajik, 2013](#)). Players adopt the aggressive behaviors to win the competition and it may cause physical harm for opposite players. Aggressive conduct may cause a disruption to the mind and moves of teammates, and if the act is punished with the aid of officials, can result in a disruption in play. It affects the focus and attention of group-friends, viable punitive motion (receiving a penalty or being scored towards) or having to play with one much less player if the wrongdoer is dispatched off ([Mahrokh & Ayoubi, 2012](#)).

Aggression has adverse possessions at the performer and his/her capabilities may be misplaced subsequently responding destructively. Competitive conduct is laid low with various factors attributed to the non-public variations along with gender of the athletes ([Mashhoodi et al., 2013](#)). Aggression may be described as any interpersonal conduct supposed to propose physical harm or intellectual misery. Competitive players who deliberately purpose injuries to their opponents are commonplace in many games ([Visek, Harris, & Blom, 2009](#)). The most common factors applied through aggression may considered breaking the rules of the game, frustration, arousal, environmental cues, and self-control. There are so many types of aggression such as hostility aggression, instrumental aggression, verbal aggression, physical aggression, emotional aggression, and aggressiveness but the worst are physical aggression, emotional aggression and aggressiveness that are being studied for the current research. Production of social associations inside sports influences the advancement of competition as well as about the social know-how ([Shariff, Javed, Salimin, & Majid, 2017](#)).

There are various effects of aggression. With respect to tremendous and instrumental aggression, there are numerous potentially positive outcomes. It serves to preserve and protect the individual ([Joseph, 2012](#)).

Researches showed that there are different factors that affect aggressive behavior together ([Mashhoodi et al., 2013](#); [Shariff et al., 2017](#)). Aggression is a popular characteristic of people, an ability situation which may be activated speedy or gradually and it can take various kinds of manifestation ([Oproiu, 2013](#)).

Aggression is a term that is used considerably in sports activities. Coaches had been surveyed and asked to pick out the traits of successful athlete; aggression could be excessive in the list ([Joseph, 2012](#)). The aggressive athlete might be livelier, keen, and strong, notably motivated, and probably to are searching for to conquering the opponent. Assertiveness for a comparison includes the use of valid physical or verbal force to gain one's purpose. Here, rather than aggression, there is no rationale to damage the opponent ([Krishnaveni & Shahin, 2014](#)). Winning has turned out to be critical part of sport and multiplied professionalism breeds on environment of prevailing in any respect expenses. Unluckily some coaches and athletes take this situation to the extreme and advocate that the usage of aggression is important with a purpose to win ([Joseph, 2012](#)). Researchers are afforded with enough possibility to look at and describe or explain the various psychological factors that impact diverse factors of sport and physical activity ([Malinauskas, Dumciene, & Lapeniene, 2014](#)).

Aggression happens in sports wherein, players' expectations about the reinforcement for aggression are high ([Joseph, 2012](#)). These days to win the game does not just depend upon the proficiency of the talents, tactics, physical proficiency and understanding of rules of game which carry victory but more vital is the intellectual education, the sport spirit and the attitude of the athletes with which they play and carry out the best within the competition. It is possible to present also other factors that might affect the affiliation between player's performance and aggression, such as self-presentation, positive attitudes toward aggression, and attitudes about masculinity. With the aid of the time perceived traits of

aggressiveness we suggest attitudes towards aggression as well as self-reported types of aggressiveness ([Shariff et al., 2017](#); [Malinauskas et al., 2014](#)).

Objectives of the Study

The following objectives were developed for the present study:

- i. To examine the relationship between aggression and sports achievement in university players.
- ii. To determine the association between social support and sports achievement in university players.
- iii. To examine the impact of aggression and social support on sports achievement in university players.

Research Hypotheses

The following hypotheses were structured for the current research:

- i. There is significant relationship between aggression and sports achievement in university players.
- ii. There is significant association between social support and sports achievement in university players.
- iii. There is significant impact of aggression and social support on sports achievement in university players.

Methodology

The present study was based on quantitative approach. A population is comprised of the totality of all subjects that complies with a set of specifications comprising the entire institution and to whom the study consequences may be generalized. The population for the current study was comprised of all student athletes of two universities (IUB and GCUF). A sample represents a component or a subset from the selected population to participate in a research study. The overall sampling size of the present research was 300 athletes studying in various disciplines of both universities (The Islamia university of Bahawalpur and Government College University Faisalabad).

Research Design and Research Tool

Cross-sectional research design was applied to collect the survey data from the respondents. In this design, data is collected once with the whole passage of time. Questionnaire was used as a tool of data collection having two portions such as demographic portion (4 items), aggression portion (12 items), and social support portion (14 items).

Procedure of Data Collection

Researchers used survey questionnaire as an instrument for the purpose of data collection. Self-administered questionnaires were distributed to 300 student athletes in the supervision of the researchers. All the athletes provided the requisite information and returned the questionnaires back. The respondents of both universities participated voluntarily. The researchers assured that the collected data would only be used for the purpose of the research results.

Statistical Approaches

The statistical package for social sciences (SPSS Version XXV) was employed to edit the collected information through questionnaires from the respondents. Self-administered questionnaires was affirmed through reliability and validity. Therefore, all the items were found in satisfactory value ranges in reliability (0.7) and validity (0.5). Statistical approaches such as descriptive statistics (percentage, mean, and standard deviation), Pearson's correlation coefficient and multiple regression analysis were involved to test the research hypotheses of the present research.

Results

In survey questionnaire, demographic information was used to investigate the personal information about respondents through mean, standard deviation, frequency, and percentage to make results more clearly. In addition, the organized data were used to deliver a summary of respondents.

Demographic Information

Demographic information of 300 participants was arranged and analyzed by descriptive statistics (percentage, mean, and standard deviation). The information consists of players' age, subject/discipline name, game/sport in which they participated, playing experience, and the department in which they were students. Total 300 university athletes between minimum 20 and maximum 26 years of age participated in this study. However, mean age was measured 23.66 years and standard deviation was calculated as 1.866.

Results of Hypothesis 1

The results of hypothesis 1 was executed through Pearson's correlation analysis. There is significant relationship between aggression (physical aggression, emotional aggression, and

aggressiveness) with sports achievement.

The results demonstrated in Table 1 that physical aggression had significant and positive correlated with sports achievement ($r=.202$, $p=.021$). Therefore, the relationship of aggression and sports achievement was found poor. The findings from correlation analysis showed that emotional aggression had a positive relationship with sports achievement.

The results explained that emotional aggression was significantly correlated with sports achievement ($p=.001$). However, the association was found medium ($r=.382$). The results from correlation analysis revealed that aggressiveness had a positive relationship with sports achievement, however, found poor ($r=.251$). The findings showed in Table 1 that aggressiveness had significant association with sports achievements ($p=.004$)

Table 1. Correlation between Aggression and Sports Achievement (n-300)

Variables	Physical Aggression	Emotional Aggression	Aggressiveness	Sports Achievements
Physical Aggression	—			
Emotional Aggression	.449	—		
Aggressiveness	.497	.276	—	
Sports Achievement	.202	.382	.251	—
	.021	.000	.004	

Results of Hypothesis 2

The result of the hypothesis 2 had been executed through Pearson's correlation analysis. There is significant relationship between social support (parents, siblings, peers, and sports teacher) with sports achievement.

The findings showed in Table 2 that parents construct have significant correlation with sports

achievements ($r=.564$, $p=.01$). Therefore, the relationship found medium and positive between social support and sports achievements. Results revealed that peers had a positive and medium association ($r=.426$, $p=.01$) with sports achievements. Therefore, the relationship between peers and sports achievements was found highly significant.

Table 2. Correlation between Social Support and Sports Achievement (n-300)

Constructs	Parents	Peers	Sport Teachers	Siblings	Sports Achievements
Parents	—				
Peers	.515	—			
Sport Teachers	.586	.745	—		

Constructs	Parents	Peers	Sport Teachers	Siblings	Sports Achievements
	.000	.000			
Siblings	.698	.539	.659	—	
Sports	.000	.000	.000		
Achievements	.564	.426	.593	.487	—
	.000	.000	.000	.000	

The findings in Table 2 demonstrated that sport teachers construct was significantly associated with sports achievements ($r=.593, p=.01$). Therefore, the sport teachers had positive and medium relationship with sports achievements. The results investigated that siblings had a significant and positive relationship with sports achievements. Therefore, medium association was found between siblings' variable and sports achievements ($r=.487, p=.01$)

Results of Hypothesis 3

The impact of aggression and social support on sports achievements was examined through multiple regression analysis to test the hypothesis 3. Therefore, Table 3 showed that the mean scores of aggression and social support were 58.40 and 81.80 respectively, whereas, mean of sports achievements was found 27.0. The std. Deviation of sports achievements, aggression and social support was 6.27, 12.50, and 15.54, respectively.

Table 3. Results of Descriptive Statistics (n=300)

Constructs	Mean Value	Std. Deviation
Sports Achievements	27.0077	6.27348
Aggression	58.4000	12.50649
Social Support	81.8000	15.54259

The result showed the value of R^2 was .368 (adjusted R^2 .358). The value that was significant, whereas, Std. Error of the Estimate was 5.02 and Durbin-Watson was 1.98 as shown in Table 4.

Therefore, the result of this model of regression revealed 45.8% of variance in the outcome variable (sports achievements)

Table 4. Results of Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.507	.468	.458	5.02468	1.985

The ANOVA exposed the value $F(2,127)=37.045$ and $p=.001$. All these values were showed profound significance as shown in Table 5.

Table 5. Results of ANOVA

Model	Sum of Squares	Df	Mean Square	F	Sig.
Regression	1870.572	2	935.286	37.045	.000
Residual	3206.420	297	25.247		
Total	5076.992	299			

Table 6. Results of Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients		t	Sig.
	B	Std. Error	Beta			
(Constant)	4.195	2.783			1.507	.134

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
Aggression	.092	.037	.183	2.484	.014
Social Support	.213	.030	.529	7.183	.000

The result shown in Table 6 displayed that the standardized coefficient of aggression was measured $\beta=.183$, $t=2.484$, and $p=.014$. Therefore, the results of standardized coefficient of social support was revealed $\beta=.529$, $t=7.183$, and $p=.001$. Therefore, the results of multiple regression analysis revealed that social support had the significant and greater impact than aggression on Sports Achievements

Discussions

The results of the current study revealed that parents, siblings, peers, and sports teachers have significant relationship with sports achievements. Therefore, the study results of [Shariff et al. \(2017\)](#) revealed the significant relationship of social support with sports achievements. Therefore, the results have significant and positive correlation between all components of social support. The present results were supported by the findings of [Campara, Tupkovic, Mazalovic, Karalic, Biscevic, Djelilovic-Vranic, and Alajbegovic \(2012\)](#) as well. The previous study of [Anderson et al. \(2009\)](#) also concluded that there was positive and significant relationship between social support and sports performance. The prior researches of [Karcher \(2005\)](#) and [Karcher and Lee \(2002\)](#) also supported the results of the present research.

The obtained results of current research revealed the significant relationship between aggression and sports achievements. The results concluded by [Tahir, Inam, and Raana \(2015\)](#) that the aggression has a significant relationship with sports achievements. The similar results were received by the study conducted by [Krishnaveni and Shahn \(2014\)](#) that aggression was significantly correlated to sports achievements. The previous study of [Oproiu \(2013\)](#) confirmed

the significant association between aggression and sports achievements.

The results of present study revealed that regression model was developed to determine the impact of social support and aggression as predicting factors on sports achievements. The findings revealed that social support and aggression had significant impact on the sports achievements. The prior researches confirmed the impact the finding of the present study ([Shariff et al., 2017](#); [Malinauskas et al., 2014](#)).

Conclusion

The results of correlation coefficient exposed that social support and aggression had significant relationships with sports achievements. Social supports from parents and sports teachers was found more significant and greater than peers and siblings in sports performance of athletes and it was found significant overall. Social support investigated greater impact than aggression on sports achievements of student athletes. It was concluded that if proper social support had been provided to university athletes, this might have reduced the level of aggressiveness from the young adults as well as university athletes. Seminars and workshops at educational institutions should be conducted to provide the awareness about the reduction of aggression in diverse sports disciplines of athletes to get the better achievements in their respective sports. Sports psychiatrists should be accompanied with the sports teams as well as individual players to handle the psychological issues of the athletes who may cause to reduce the aggression level of players while playing. Parents should also play in important role to support their youngsters on one side and minimize aggressiveness through polishing their mental approaches on the other hand.

References

- Allbaugh, C. N., Bolter, N. D., & Shimon, J. M. (2016). Sibling influence on physical activity and sport participation: Considerations for coaches. *Strategies*, 29(4), 24-28. DOI: [10.1080/08924562.2016.1181593](https://doi.org/10.1080/08924562.2016.1181593)
- Anderson, R., Bugayev, P., Gaetz, G., Guglielmina, C., & Kirkegaard, K. (2009). Peer and parental support among college students. *Sociology/Anthropology*, 371.
- Bianco, T., & Eklund, R. C. (2001). Conceptual considerations for social support research in sport and exercise settings: The case of sport injury. *Journal of Sport and Exercise Psychology*, 23, 85-107. <http://dx.doi.org/10.1123/jsep.23.2.85>
- Campara, M., Tupkovic, E., Mazalovic, E., Karalic, E., Biscevic, M., Djelilovic-Vranic, J., & Alajbegovic, A. (2012). Correlation of aggressiveness and anxiety in fighting sports. *Medical Achieve*, 66, 116-21. DOI: [10.5455/medarh.2012.66.116-121](https://doi.org/10.5455/medarh.2012.66.116-121).
- Davis, T., Scheer, S., Gavazzi, S., & Uppal, R. (2010). Parent advocates in children's mental health: Program implementation processes and considerations. *Administration and policy in mental health*, 37, 468-83. DOI: [10.1007/s10488-010-0288-x](https://doi.org/10.1007/s10488-010-0288-x).
- Fletcher, D., & Sarkar, M. (2012). A grounded theory of psychological resilience in Olympic champions. *Psychology of Sport and Exercise*, 13(5), 669-678. <https://doi.org/10.1016/j.psychsport.2012.04.007>
- Freeman, P., Rees, T., & Hardy, L. (2009). An intervention to increase social support and improve performance. *Journal of Applied Sport Psychology*, 21(2), 186-200. DOI: [10.1080/10413200902785829](https://doi.org/10.1080/10413200902785829)
- Greca, J. P. A., Arrudaa, G. A., Coledama, D. C., Junior, R. P., Teixeira, M., & Oliveiraa, A. R. (2016). Student and parental perception about physical activity in children and adolescents. *Revista Andaluza De Medicina Del Deporte*, 9(1), 12-16. <https://doi.org/10.1016/j.ramd.2015.05.005>
- Jagacinski, C. M., & Nicholls, J. G. (1984). Conceptions of ability and related affects in task involvement and ego involvement. *Journal of Educational Psychology*, 76(5), 909-919. <https://doi.org/10.1037/0022-0663.76.5.909>
- Joseph, M. (2012). Sports Tales Cast India as the Villain. *The New York Times*.
- Karcher, M. J., & Lee, Y. (2002). Connectedness among Taiwanese middle school students: a validation study of the Hemingway measure of adolescent connectedness. *Asia Pacific Education Review*, 3(1), 92-114. <https://doi.org/10.1007/BF03024924>
- Karcher, M. J. (2005). The Hemingway: Measure of adolescent connectedness: A manual for scoring and interpretation. University of Texas at San Antonio. <http://adolescentconnectedness.com/media/HemManual2006.pdf>
- Karcher, M. J. (2011). The Hemingway: Measure of adolescent connectedness: A manual for scoring and interpretation. University of Texas, San Antonio. <http://adolescentconnectedness.com/media/HemingwayManual2012.pdf>
- Katagami, E., & Tsuchiya, H. (2016). Effects of social support on athletes' psychological well-being: The correlations among received support, perceived support, and personality. *Psychology*, 7, 1741-1752. DOI: [10.4236/psych.2016.713163](https://doi.org/10.4236/psych.2016.713163).
- Krishnaveni, K., & Shahin, A. (2014). Aggression and its influence on sports performance. *International Journal of Physical Education, Sports and Health*, 1(2), 29-32.
- Kumar, R. (2015). Risking and wronging. *Philosophy and Public Affairs*, 43(1), 27-51. <https://doi.org/10.1111/papa.12042>
- Mahrokh, D., & Ayoubi, B. (2012). The comparison of aggression of football players in different positions. *Ovidius University Annals, Series Physical Education*

- and Sport/Science, Movement, and Health, 12(2), 314-319.
- Malinauskas, R., Dumciene, A., & Lapeniene, D. (2014). Social skills and life satisfaction of Lithuanian first- and senior-year university students. *Social Behavior and Personality: An International Journal*, 42(2), 285-294. <https://doi.org/10.2224/sbp.2014.42.2.285>
- Mashhoodi, S., Mokhtari, P., & Tajik, H. (2013). The comparison of the aggression of young and adult athletes in individual or team sports. *European Journal of Experimental Biology*, 3(1), 661-663.
- Medlin, B., & Green, K. W. (2009). Enhancing performance through goal setting, engagement, and optimism. *Industrial Management & Data Systems*, 109, 943-956. DOI: 10.1108/02635570910982292
- Nicholls, J. G. (1984). Achievement motivation: Conceptions of ability, subjective experience, task choice, and performance. *Psychological Review*, 91(3), 328-346. <https://doi.org/10.1037/0033-295X.91.3.328>
- Oproiu, I. (2013). A study on the relationship between sports and aggression. *Sport Science Review*, 22(1-2), 33-48. DOI: 10.2478/ssr-2013-0003
- Shariff, A. R. M., Javed, S., & Salimin, N. (2016). The impact of hockey coaches and team cohesion on the performance of players. *Asian Social Science*, 12(4), 74-86. DOI:10.5539/ass.v12n4p74.
- Shariff, A. R. M., Javed, S., Salimin, N., & Majid, N. A. (2017). Aggression in the sporting: Catharsis and social support. *Science International*, 29(1), 259-263.
- Shen, B., Centeio, E., Garn, A., Martin, J., Kulik, N., Somers, C., & McCaughy, N. (2018). Parental social support, perceived competence, and enjoyment in school physical activity. *Journal of Sport & Health Science*, 7(3), 346-352. DOI:10.1016/j.jshs.2016.01.003
- Tahir, W. B., Inam, A., & Raana, T. (2015). Relationship between social support and self-esteem of adolescent girls. *IOSR Journal of Humanities and Social Science*, 20(2), 42-46. doi:10.1016/j.sbspro.2010.07.46
- Visek, A. J., Harris, B. S., & Blom, L. (2009). Doing sport psychology: A youth sport consulting model for practitioners. *Sport Psychologist*, 23(2), 271-291. DOI: 10.1123/tsp.23.2.271
- Wezyk, A. (2011). Relationships between competitive anxiety, social support, and self-handicapping in youth sport. *Biomedical Human Kinetics*, 3, 72-77. Doi: 10.2478/v10101-011-0016-3.
- Xhakaza, E. (2005). Psychosocial factors that influence female sport participation in secondary schools (MA Thesis). University of Johannesburg.