

Original Article

Attitude, sports participation and academic performance of undergraduate student-athletes in Saudi Arabia.

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Abstract:

Many studies have reported inconsistent results on the relationship between competitive sports participation and academic achievement. Attitude was not studied in previous research on competitive sport participation and in Saudi Arabia, the attitude towards sports participation is low among students due to the fear of negative influence of sport on academic achievement. This study examines whether attitude towards sports participation might play a role in mediating the relationship between sports participation and academic achievement. A total of 102 undergraduate student-athletes from three universities in Saudi Arabia were selected as the sample of this study. Results showed there is a significant relationship between competitive sports participation and academic performance, mediated by the attitude towards competitive sports participation. This study found that the higher the subjects' participation in competitive sports, the higher their academic performance, especially when they exhibit positive attitude towards their participation in competitive sports.

Keywords: competitive sports, college athletes, academic achievement, attitude towards sports participation

Introduction

In the literature, the effect of sports participation on academic performance is ambiguous. Many studies found a positive association between competitive sports participation and academic performance. For example, Lipscomb (2007) reported that students' competitive sports participation is associated with five percent increase in Bachelor's degree attainment expectations, while Donnelly and Lambourne (2011) and Kuo-Ming, Peng-Sheng, & Yi-Ching (2012) reported the link between physical activity, cognitive function, and academic performance. Howie and Pate (2012) indicated that physical activity, including competitive sports, positively affect academic results and suggested that further studies should be done in order to scrutinize which kinds of activities and the dose needed to produce an improvement in academic performance. Stearns and Glennie (2010) reported that competitive sports participation in certain kinds of sports mediated the relationship between the availability of sports activity and academic achievements. This means that competitive sports participation affects the academic performance directly. Accordingly, competitive sports participation is viewed as an indicator of several factors such as teamwork ability, self-confidence, and the ability to succeed in competitive situations (Lipscomb, 2007) which play a significant role in improving academic performance as well.

Many other studies reported that involvement in sports activities has a positive effect on students' life in general, such as healthier lifestyle (Omar-Fauzee et. al., 2009) general academic achievements (Lipscomb, 2007) and even reduce the frequency of illegal behaviour (Davis & Menard, 2013). However, not every researcher support the findings that competitive sports participation and academic performance are positively related to one another. For instance, Chuan, Yusof and Shah (2013) suggest competitive sports participation might negatively affect the students' academic performance. Another study by Eide & Ronan, (2001) showed that there is no significant relationship between academic performance and competitive sports participation. Some members of the society believe that competitive sports participation might contribute to negative developments of student-athletes, such as the involvement of drug abuse (Smith et. al., 2010) and violence (Sønderlund et. al., 2014).

The literature suggests that competitive sports participation at the university level is significantly affected by several factors such as the availability of sports facility in the university (Omar-Fauzee et. al., 2009), motivation (Donnelly & Lambourne, 2011) and attitude (Aronson, Wilson & Akert, 2005). Some studies suggest that attitude can be a common element between academic performance and competitive sports participation. Attitude has been reported (Omar-Fauzee et. al., 2009) as an important factor in college students' utilisation of sports facilities and is one of the elements of competitive sports participation. Similarly, attitude is also reported to be a significant factor for academic performance (Bradley & Greene, 2013). Therefore, improving competitive sports participation without jeopardising academic performance might be possible to achieve by modifying student-athletes' attitude.

An attitude can be defined as a positive or negative evaluation of people, objects, event, activities, ideas, or just about anything in an individual's environment, and it can be formed from a person's past and present (Davis & Menard, 2013). The definition was then renewed as a psychological tendency that is expressed by evaluating a particular entity with some degree of favour or disfavour (Eagly & Chaiken, 1998). Structure of attitude was explained for the first time by McGuire (1969) who introduced attitudinal bases theory. It was mentioned that an attitude consists of three attitudinal bases: cognitive, affective, and behavioural. It was explained that attitude can be formed by affective (emotional feeling towards an attitudinal object), cognitive (logical reason in preferring an attitudinal object) and behaviour (frequency or habituation of a certain behaviour) elements (Aronson, Wilson & Akert, 2005). Based on the attitudinal base theory, frequency and intensity of participating in competitive sports will positively affect the attitude towards participation in competitive sports, and at the same time, frequency and intensity of showing high academic performance positively contributes to the attitude towards academic achievements. For instance, a student who used to participate in volleyball practice activities develops more positive attitude towards volleyball than the students who seldom participate. Therefore, the higher the level of competitive sports participation, the higher the level of attitude towards competitive sports participation.

In Saudi Arabia, levels of sport participation of undergraduate students are not as what expected by the government (Saudi University Sports Federation, 2010). The government of Saudi Arabia, represented by Saudi University Sports Federation (SUSF), is seeking to improve the levels of competitive sports participation among undergraduate students in Saudi Arabia sports while maintaining their academic performance. To ensure good academic performance among undergraduate student athletes, the SUSF has gone as far as establishing a policy that only student-athlete with high academic achievement can participate in competitive sports (Saudi University Sports Federation, 2010). The aforementioned policy leads to a question whether a student athlete can participate in competitive sports while at the same time maintaining good academic performance. The policy of SUSF that allows only students with high academic achievement to participate in competitive sports provides the connection between attitude towards competitive sport participation and academic performance. For instance, a student-athlete who likes to participate in competitive swimming (high ATCSP) might give higher effort to get higher academic scores compared to those with lower attitude towards competitive sport participation.

The theory of operant conditioning (Skinner, 1953) states that behaviour that is paired with a positive reinforcement or rewards would likely be repeated. In other words, pairing the behaviour with a rewarding consequences can elevate attitude towards a certain behaviour. Specifically, the policy from SUSF provides monetary allowance for participation in competitive sports as a reward for any behaviour that leads students to high academic achievement. In this process, student-athlete would likely to develop behaviours that lead them to achieve higher academic performance, such as studying harder or avoid truancy. Many studies had indicated a significant effect of competitive sports participation on academic performance, either negative or positive. Furthermore, the influence of competitive sports on attitude can be conceptualized based on the operant conditioning theory (Skinner, 1953) and attitudinal theory (McGuire, 1969) where the regulation established by the SUSF led to the possibility where attitude towards competitive sports participation can affect academic performance. Many of the previous empirical studies examining the effect of sports participation on academic achievement failed to adequately control for the presence of a mediating variable which can affect the relationship between competitive sports participation and academic performance. Building on the work of Baron & Kenny (1986), there is a possibility that the influence of competitive sports participation on academic performance might be altered by the attitude towards competitive sports participation. Attitude towards competitive sports participation can act as a mediator between competitive sports participation and academic performance. Thus, this study aims to test the hypothesis "There is no mediation effect of attitude towards competitive sports participation on the causal relationship between competitive sports participation and academic performance."

Methods

A total of 102 undergraduate student-athletes from three universities in Saudi Arabia were selected as the sample of this study. The three universities; King Faisal University, Prince Mohammad bin Fahd University and Dammam University show the highest number of participants and highest achievement in the sports event 2013-2014. The subjects of this study were those who were involved in competitive sports participation. In the context of this study, competitive sports participation is defined as the frequency of the students' participation in sports activities in a week and whether the students are active members of university sport teams or sports clubs.

An instrument known as Attitudes Towards Physical Activity (ATPA) instrument was used to collect the data. It was developed by Gerald Kenyon (1968), translated and modified to Arabic by Mohammad Allawi (1989). The instrument is on a 5-point Likert scale and consists of four sections, six dimensions and 54 items. The instrument was previously used to collect data from the male and female undergraduate students in Egypt and was found to be suitable. Based on the previous studies, the reliability of the instrument was reported to range between 0.72 and 0.89. This study was conducted in the eastern region of KSA, an area consisting of three government universities, two private universities and one private college. Data were collected during a sport competition which was organised and supervised by the SUSF.

Results

Several stepwise multiple regression analyses were performed to address the research hypothesis. The first analysis is to examine a relationship between the independent variable (competitive sports participation) and the dependent variable (academic performance). It is found that there is a significant relationship between competitive sports participation and academic performance. As shown in Table 1, there is a significant relationship between competitive sports participation and academic performance regarding students' CGPA. The relationship is positive, which means that the more often the student athletes participate in competitive sports, the higher is academic achievement.

Table 1 : Relationship between participation in competitive sport and academic achievement

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.860	.273		3.153	.002*
	Competitive sports participation	.255	.025	.717	10.273	.001*

*p<.01, Dependent Variable: academic performance

The second analysis is to examine the relationship between the competitive sports participation and the mediator variable attitude towards competitive sports participation. It is found (Table 2) that there is a significant relationship between competitive sports participation and attitude towards competitive sports participation. The relationship is positive, which means that the more often the student-athletes participated in competitive sports, the more positive is attitude towards sports participation.

Table 2: Relationship between competitive sports participation and attitude towards competitive sports participation

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	70.495	15.279		4.614	.001*
	Competitive sports participation	10.652	1.393	.608	7.650	.001*

*p<.01, Dependent Variable: attitude towards competitive sports participation

The third analysis examined the relationship between the mediator variable attitude towards competitive sports participation and the dependent variable (academic performance). It is shown that there is a significant relationship between the two variables (Table 3). The relationship is positive, which means that the more positive students' attitude towards participating in competitive sports, the better their academic performance will be.

Table 3: Relationship between attitude towards competitive sports participation and academic performance

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.020	.275		3.702	.001*
	ATPCS	.014	.001	.692	9.597	.001*

*p<.0, Dependent Variable: academic performance

Table 4 indicates the influence of competitive sports participation on academic performance through attitude towards competitive sports participation. It is shown that the β value of the competitive sports participation with attitude towards competitive sports participation (.407) is smaller than the one without (.469). In other words, without attitude towards competitive sports participation, the competitive sports participation explained 46.9% of the academic performance variance; with competitive sports participation included, the proportion of explained variance decreased to 40.7%.

Table 4: Influence of Participation in Competitive Sports on academic performance through Attitude Towards Competitive Sports

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.860	.273		3.153	.002*
	PCS	.255	.025	.717	10.273	.001*
2	(Constant)	.276	.268		1.032	.305
	PCS	.167	.028	.469	5.998	.001*
	ATPCS	.008	.002	.407	5.212	.001*

*p<.01, Dependent Variable: academic performance

Thus, because the β value in the equation showed smaller value than in the equation 1, it can be considered that mediation does occur partially. When calculated using Sobel Test, the test statistic = -10.452, the standard error is 0.0335, and the p-value is 0.001, which means that the indirect effect of the competitive sports participation on academic performance via attitude towards competitive sports participation is significantly different from zero; the partial mediation is significant. Therefore, null hypothesis is rejected. In other words, when the student athletes developed a positive attitude towards competing in sports, the level of their participation in the sports competition will affect their academic scores.

Discussion

It was shown in this study that there is a significant influence of competitive sports participation on academic performance, mediated by the attitude towards competitive sports participation. In other words, the more the subjects participate in competitive sports, the better their academic performance is; especially when they exhibit positive attitude towards competitive sports participation. Based on the theory of attitude (McGuire, 1969), in the context of this current study, how active an individual engaged in competitive sport activities can be taken as 'behavioural attitudinal base' that will affect the attitude towards participating in competitive sport activities. As reported by Chuan, Yusof, Soon & Abdullah (2014), students with positive attitudes will be more enthusiastic to be involved in sports activities. In this study, the policy of SUSF that allows only students with high academic achievement to participate in competitive sports (SUSF, 2010) leads individuals with high level of competitive sports participation to think that it is important to achieve high academic achievement and develop positive attitude towards academics because they have to be academically good before they can participate in competitive sports. This finding is not consistent with the finding of Rees and Sabia (2010) or Zeiser (2011) which state that competitive sports participation significantly negates the academic performance. However, the results of this investigation support the findings of Howie and Pate (2012), and also Donnelly and Lambourne (2011) that reveal participation in sports activities positively affects the academic performance among students' athletes. The SUSF regulation promotes the importance of academic performance among student-athletes who would like to participate in competitive sports. Their willingness to participate in competitive sports can also be considered as showing a positive attitude towards competitive sports participation. Since attitude towards competitive sport participation had already been in the minds of the subjects, hence they are ready to 'pay the price' in order to participate in competitive sports. When the SUSF established this policy, this positive attitude towards competitive sport participation was channelled to any 'price to pay' in order to participate, which in this case, is students' academic performance. SUSF policies positively influence academic performance by two mechanisms:

- (a) allowing only students with high academic performance to participate in competitive sports
- (b) by engaging students to improve their academic performance with the same attitude as improving their sport performances.

The policy by SUSF put any kinds of competitive sports activities as a reward, paired with high academic achievements; therefore the higher the students' positive attitude towards competitive sport participation, the more effort being put by the students to achieve good grades. In other words, SUSF regulation led students to channel their positive attitude towards competitive sport participation into academic performance.

Conclusion

Researchers have made considerable progress in examining the relationship between sports participation and academic achievement in the past 5 years, yet results are still inconsistent. Most studies reported positive relationship between sports participation and academic achievement but attitude was not studied in previous research on competitive sport participation and differences in findings related to the interrelationship between competitive sports participation and academic performance were not explained. This study contributes to the body of knowledge by identifying the significance of attitude towards competitive sport and academic performance. This study showed there is a causal relationship competitive sports participation and academic performance, mediated by the attitude towards competitive sports participation. The regulation of SUSF which requires only students with high academic performance to participate in competitive sports plays its role in determining the interrelationship among variables in this current study.

Recommendation

It is recommended to the future researchers to look into the variables which are not included in this current research, for instance, the involvement of female athletes, the participation in recreational sports, or even the attitude towards the academic performance itself. Nevertheless, it is hoped that the findings of this current study serve as a foundation for further researchers to improve the sports performances or academic performance among student athletes in Saudi Arabia.

References

- Allawi, Mohammed Hassan (1998). *Encyclopedia of psychological tests for athletes* (Edition 1). Cairo: The book center for publication.

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- Allport, G. (1935). Attitudes. In C. Murchison, *A Handbook of Social Psychology* (pp. 789–844). Worcester, MA: Clark University Press.
- Aronson, E., Wilson, T., & Akert, R. (2005). *Social Psychology, Fifth Edition*. New Jersey, NY: Pearson Education, Inc.
- Baron, R. M., & Kenny, D. A. (1986). The Moderator-Mediator Variable Distinction in Social Psychological Research: Conceptual, Strategic, and Statistical Considerations. *Journal of Personality and Social Psychology*, 51 (6), 1173-1182.
- Bradley, B. J., & Greene, A. C. (2013). Do Health and Education Agencies in the United States Share Responsibility for Academic Achievement and Health? A Review of 25 Years of Evidence About the Relationship of Adolescents' Academic Achievement and Health Behaviors. *Journal of Adolescent Health*, 52(5), 523-532.
- Chuan, C.C., Yusof, A., & Shah, P. (2013). Sport involvement and academic achievement: A study of Malaysian university athletes. *International Education Studies*, 6(2), 12-21.
- Chuan, C.C., Yusof, A., Soon, C.C., & Abdullah, M.C. (2014). Application of Theory of Planned Behavior To Predict Recreational Sports Activities Participation of Students in Malaysia. *Journal of Physical Education & Sport*, 14(2), 172-177.
- Davis, B. S., & Menard, S. (2013). Long term impact of youth sports participation on illegal behavior. *The Social Science Journal*, 50(1), 34-44.
- Donnelly, J. E., & Lambourne, K. (2011). Classroom-based physical activity, cognition, and academic achievement. *Preventive Medicine*, 52, S36-S42.
- Eagly, A. H., & Chaiken, S. (1998). Attitude Structure and Function. In D. Gilbert, S. T. Fisk, & G. Lindsey, *In Handbook of Social Psychology* (pp. 269–322). New York: McGowan-Hill.
- Eide, E. R., & Ronan, N. (2001). Is participation in high school athletics an investment or a consumption good?: Evidence from high school and beyond. *Economics of Education Review*, 20(5), 431-442.
- Gaddis, S. M. (2013). The influence of habitus in the relationship between cultural capital and academic achievement. *Social science research*, 42(1), 1-13.
- Howie, E. K., & Pate, R. R. (2012). Physical activity and academic achievement in children: A historical perspective. *Journal of Sport and Health Science*.
- Kenyon, G. S. (1968). Six scales for assessing attitude toward physical activity. *Research Quarterly. American Association for Health, Physical Education and Recreation*, 39(3), 566-574.
- Kuo-Ming, W., Peng-Sheng, W., & Yi-Ching, H. (2012). Physical Fitness and Academic Achievement of Elementary School Students: A Cross-Sectional Survey in Southern Taiwan. *Journal of Physical Education & Sport*, 12(3), 302-309.
- Lindner, K. J., & Kerr, J. H. (2000). Meta motivational orientations in sport participants and non-participants. *Psychology of Sport and Exercise*, 1(1), 7-25.
- Lipscomb, S. (2007). Secondary school extracurricular involvement and academic achievement: A fixed effects approach. *Economics of Education Review*, 26(4), 463-472.
- Omar-Fauzee, M.S., Yusof, A., & Zizzi, S. (2009). College students' attitude towards the utilization of the Sport Recreation Center. *European Journal of Social Sciences*, 7(3), 27-41.
- Omar-Fauzee, M.S., Daud, N., Kamaruddin, K., Yusof, A., Geok, S.K., Nazaruddin, M.N., Aman, S., & Salikon, R. (2009). What's make university students participate in sports? *European Journal of Social Sciences*, 8(3), 449-458.
- Smith, A. C., Stewart, B., Oliver-Bennetts, S., McDonald, S., Ingerson, L., Anderson, A., & Graetz, F. (2010). Contextual influences and athlete attitudes to drugs in sport. *Sport management review*, 13(3), 181-197.
- Stearns, E., & Glennie, E. J. (2010). Opportunities to participate: Extracurricular activities' distribution across and academic correlates in high schools. *Social Science Research*, 39(2), 296-309.
- Sønderlund, A. L., O'Brien, K., Kremer, P., Rowland, B., De Groot, F., Staiger, P., ... & Miller, P. G. (2014). The association between sports participation, alcohol use and aggression and violence: A systematic review. *Journal of science and medicine in sport*, 17(1), 2-7.
- McGuire, W. J. (1969). The nature of attitudes and attitude change. In G. Lindzey, & E. Aronson, *The Handbook of Social Psychology* (pp. 136-314). Reading, MA: Addison-Wesley Theory of attitude.
- Saudi University Sports Federation (2010) *Profile and Regulation*. Ministry of higher education: Riyadh.
- Skinner, B. F. (1953). *Science and Human Behavior*. New York: MacMillan.
- Rees, D. I., & Sabia, J. J. (2010). Sports participation and academic performance: Evidence from the National Longitudinal Study of Adolescent Health. *Economics of Education Review*, 29(5), 751-759.
- Zeiser, K. L. (2011). Examining racial differences in the effect of popular sports participation on academic achievement. *Social Science Research*, 40(4), 1142-1169.