Role of sports activities in developing the important life skill of decision making; a psychological perspective

Wasim Khan\textsuperscript{1,2,3,4}, Salahuddin Khan\textsuperscript{1,4}, Tasleem Arif\textsuperscript{2,5}, Sohail Roman Khan\textsuperscript{1,4}

\textsuperscript{1}Department of Sports Sciences and Physical Education, Gomal University, D.I.Khan, Pakistan
\textsuperscript{2}Department of Sports Sciences and Physical Education, Sarhad University of Science and Technology, Peshawar, Pakistan

Authors’ Contribution: A – Study design; B – Data collection; C – Statistical analysis; D – Manuscript Preparation; E – Funds Collection.

Abstract

Purpose: It is generally believed that sports can play an important role in developing life skills and positive youth development. The purpose of this study was to determine the views of Gomal University students’ athletes on the role that sports played in developing the important life skill of decision making. The time management, planning, dealing with adversity and adapting new situation were taken as decision-making skills.

Material: A sample of n=375 (male=334, female=41) completed questionnaires. The researchers collected the required information with the help of self-administered structured questionnaire encompassing the selected variables of the study. The responses were tabulated and analyzed with the help of computer software.

Results: The results showed participants attributed a significant role for sports in developing decision-making skills such as time management, planning, dealing with adversity and adapting new situation (603** at 0.01) and significant correlation between sports participation and the development of various decision-making skills among its participants (603** at 0.01). The results indicated that demographic characteristic such as gender, age, and level of sports participation of the athletes brings variations in the mean score of research variables (0.003, 0.004 & 0.001 < 0.05).

Conclusions: Results of the study indicated that sports provide an excellent opportunity for students to learn skills that can help them in taking positive as well as effective decision. The present exploration affirmed that students can acquire a) time management skill, b) proper planning, c) dealing with adversity, and d) the ability to adjust in a new situation through active participation in sports activities. However, some demographic characteristics of the sports participants such as gender, sports experience, and format of sports have an influence upon the development of these skills through sports.

Keywords: Sports activities, development, life skills, decision making, university athletes, psychological perspective.

Introduction

At the time of independence of Pakistan, there was little opportunity to participate in sports. However, with the advent of industrialization and resulting in increased leisure time, there has been an increased awareness of sports with becoming an important part of Pakistan’s culture. Millions of people from different and diverse walks of life take part in various sports activities, spend millions of rupees in buying sports equipment, and enjoy sports competitions as spectators and fans.

The Ministry of Inter Provincial Coordination, Pakistan Sports Board (PSB), Pakistan Olympic Association (POA) and other Provincial Organizations are the supreme bodies for regulating and controlling sports in Pakistan on a National basis. These bodies are struggling to establish uniform standards sports events in Pakistan equitable to the prevalent international sports standards.

Sports and games are an integral part of the academic curriculum [1]. It is necessary for all the educational institutions to make sure the smooth conduct of sports activities and participation. Especially, the participation of university students’ who spend most of the time in classrooms, laboratories for research and cut off from social life [2]. The main goal for university sports is the training of the brain and body of young people to keep them physically fit and become a good citizen. Physical activities and sports participation always help the students in higher academic achievements [3-5].

Sports is believed by many to play an important role in making individuals productive and useful members of society [6, 7]. There is some support in the literature for this view with better positive academic outcomes being reported as directly related are to the time spent in sports activities [2, 8]. Danish colleagues [8] suggest that participation in high-school sports not only develop life skills among students, but it also contributes to educational achievements. Barber and colleagues [10] reported that sports participation led to higher academic performance, greater autonomy and greater satisfaction in one’s first job. While many studies report positive outcomes other studies associated with negative outcomes including addiction to tobacco and the use of alcohol [11, 12].

Life skills are those skills that help individuals to successfully work in the environment in which they live [13]. According to Gould and Carson [14] life skills are that personal asset that can be developed in the sports arena and transferred in a non-sports setting. Life skills are those important skills that need in various domains of life, such as family, school, and community [15]. Life skills are important and applicable to everyone who wants successes in various aspects of his/her life and look for a
quality life. Life skills at school stage assist students are decision making to select courses for their future career, as well as for selecting a suitable profession [16]. The engagement of young students in dissipated, unsocial and illegitimate activities like smoking, drug abuse, and alcoholism is the result of lack of proper guidance, motivation antisocial behaviour of parents and the use of the internet [17].

The lack of availability of life skills, most of the students is unable to utilize their hidden potentialities in an appropriate manner. Unsocial engagements not only deteriorate the physical but also depreciate the intellectual capacities of the students, the real asset of the nation [18]. In this regard, a well-organized and properly planned program of life skills development can help students to deal with the growing pace and alteration of modern life [19, 20]. Development of basic life skills strengthens the individuals’ capabilities to meet the present day demands and helps in dealing with many emerging issues like poverty, famines, suicide, drug abuse, sexual harassment, juvenile delinquency and anti-social activities.

Good decision making skill is considered as important life skills [21, 22]. The ability of good decision making has a tremendous influence on individuals’ lives. For instance, the selection of school, choice of sport, career, and business, are very much important because they have a major influence on our lives. Improvement in the decision-making skills increase values in important life domains, such as family, jobs, and communities [23, 24]. People are needed who have the ability to make decisions quickly and responsibly. Upon this notion, findings of the studies suggested that it is important to teach good decision-making skills to students in order to make them capable of taking effective decisions in their important life domains [25, 26].

Decision-making is a fundamental element of our lives. Sports activities including soccer, football, volleyball, basketball, and rugby significantly contribute to the development of decision-making skill [27]. Some research has shown very positive effects of sports activities such as Volleyball, Basketball, Tennis, Shooting, Dance, Martial Arts, Swimming and Mountaineering on the development of problem-solving skills/decision-making skills and academic performance of the students [28-30]. Other research has identified that sports like soccer directly involved in the development of decision making ability among players and also in problem-solving skills [31, 32].

Sports have become an integral part of the schools, colleges, and universities in Pakistan. Various sports events such as Inter-scholastic sport, Inter-collegiate sports, and Intervarsity provide an opportunity for students to participate in sports in these different levels. These sports participation develops various attributes in students such as courtesy, sympathy, truthfulness, fairness, honesty, the supremacy of law and respect to authority [33]. This study was an attempt to investigate the perceptions of athletes on the role that sports have in developing decision-making skills among university students of Khyber Pakhtunkhwa (KP), Pakistan.

Hypotheses: Ha 1 Predictor (Sports activities) have a significant role in the determination of the Criterion variables (decision-making skills), Ha 2 Sports activities have a significant association with the development of decision-making skills (time management, planning, dealing with adversity and adapting new situation), Ha 3 Demographic characteristics of the athletes bring variations in the mean score of research variables.

Objectives: To determine the role of sports in the development of decision-making skills, to find out the relationship between sports participation and decision making skills, and to analyze the role of demographics characteristics in the decision-making skills developed through sports.

Materials and Methods
Participants: The participants of the present study comprised of athletes who did participate in organized sports conducted by Directorate of Sports, Gomal University. The Gomal University is the second largest university of Khyber Pakhtunkhwa with an enrollment of approximately 1858 boarder students at various hostels in the university. Of the 1858 students, n=375 (male=334, 89.1%; female= 41, 10.9%) filled in the questionnaires and return them. The subjects were selected applying convenience, non-probability sampling technique.

Research Design: As the study was guided by the quantitative research method therefore, the researcher preferred to use cross-sectional survey research design in which the data were collected at one time. A structured questionnaire was developed and used for collecting the requisite data. The questionnaire comprised two sections. Section (A) consists of sports background of the participants whereas, section (B) deals with decision-making skills developed through sports.

Data Collection Procedure: Prior to data collection, the researchers accorded formal approval from Students Supervisory Committee (SSC), Department of Sports Sciences and Physical Education, Gomal University to conduct a survey in the university. Upon receiving formal approval, the survey began in the first week of January 2019. The researchers collected the required data in four weeks. The coach and sports organizers of the Sports Directorate, Gomal University helped the researchers in soliciting the responses from students’ athletes.

Statistical Analysis:
Statistical analysis was carried out with SPSS 22 and p value was set at p<0.05. Linear regression was used to assess the role of sports participation in the development of decision-making skills. Pearson correlation was applied to find out the association of sports participation with the development of decision-making skills.

Results
Demographic Characteristics: The age, gender, and format of sports were taken into consideration as shown in table 1. The distribution of the athletes based on their gender shown in table 1 was 334 (89.1%) male and 41
(19.9%) females. Age of the respondents was classified into three categories i.e., 18-20 years, 21-23 years and 24 and above years; out of 375 athletes 153 (40.8 %) were having 18-20 years, 203 (54.1%) 21-23 years and 19 (5.1%) were those having 24 and above years. Similarly, the format of sports was analyzed from two categories as shown in table 1 i.e., team sports and individual sports; out of 375 athletes 326 (95.32%) those who participated in team sports and 16 (4.67%) those who did participate in individual sports.

Views of university athletes regarding the role of sports in the development of decision-making skills have been presented in table 2.

The viewpoint of respondents regarding the role of sports in the development of decision-making skills was assessed through four questions. Their responses are presented in table 2. According to the sketched table, (51.6%) responded strongly agree and (25.8%) opted to agree on which confirm that athletes have paramount role in the development of the quality of time management among its participants. Meanwhile, (48.4%) and (34.4%) of athletes have responded strongly agree and agree respectively on the role of sports in developing the quality of planning. Similarly, (46.0%) and (42.0%) of respondents have opted strongly agree and agree respectively which affirm that participation in sports develops the skill of dealing with adversity. The analyzed data have shown that (47.1%) and (32.9%) of respondents respectively opted strongly agree and agree with the statement that there is a link between sports participation and the development of skill like adopting new situations.

Testing of Hypothesis

Hypothesis 1

Ha 1 Predictor (Sports activities) have a significant role in the determination of the Criterion variables (decision-making skills).

Linear regression was used to assess the role of sports participation in the development of decision-making skills. According to the above table F-value (50.572) has been noted significant at .000a Beta score (.301) has been recorded significant at .000a level of significance. Based on the above statistical inferences, the alternate hypothesis has been accepted which confirm that sports participation has paramount significant in the development of decision-making skills.

Hypothesis 2

Ha 2 Sports activities have a significant association with the development of decision-making skills.

Pearson correlation was applied to find out the association of sports participation with the development of decision-making skills. The analyzed statistical

Table 1. Demographics characteristics of participants (n=375)

<table>
<thead>
<tr>
<th>Demographics</th>
<th>Description</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>Male</td>
<td>334</td>
<td>89.1</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>41</td>
<td>10.9</td>
</tr>
<tr>
<td>Age</td>
<td>18-20 Year</td>
<td>153</td>
<td>40.8</td>
</tr>
<tr>
<td></td>
<td>21-23 Years</td>
<td>203</td>
<td>54.1</td>
</tr>
<tr>
<td></td>
<td>24 and above</td>
<td>19</td>
<td>5.1</td>
</tr>
<tr>
<td>Sports Practiced</td>
<td>Team Sports</td>
<td>326</td>
<td>95.32</td>
</tr>
<tr>
<td></td>
<td>Individual Sports</td>
<td>16</td>
<td>4.67</td>
</tr>
</tbody>
</table>

Table 2. Showing views of the athletes regarding the role of sports in the development of decision-making skills

<table>
<thead>
<tr>
<th>Dimensions</th>
<th>% of Athletes Regarding Sports as an Important Factor of Developing Decision-Making Skills</th>
</tr>
</thead>
<tbody>
<tr>
<td>time Management</td>
<td>SA  A  UD  DA  SDA  Chi-Square</td>
</tr>
<tr>
<td>Planning</td>
<td>51.6  28.8  1.3  3.6  7.7  0.002</td>
</tr>
<tr>
<td>Dealing with Adversity</td>
<td>48.4  34.4  4.4  7.6  5.2  0.002</td>
</tr>
<tr>
<td>Adapting new Situations</td>
<td>46.2  41.8  3.2  6.6  2.2  0.002</td>
</tr>
<tr>
<td>Time Management</td>
<td>51.6  28.8  1.3  3.6  7.7  0.002</td>
</tr>
<tr>
<td>Planning</td>
<td>48.4  34.4  4.4  7.6  5.2  0.002</td>
</tr>
<tr>
<td>Dealing with Adversity</td>
<td>46.2  41.8  3.2  6.6  2.2  0.002</td>
</tr>
<tr>
<td>Adapting new Situations</td>
<td>47.1  37.9  6.2  6.6  2.2  0.002</td>
</tr>
</tbody>
</table>

Table 3. Linear regression model showing influence of predictor upon criterion variable

<table>
<thead>
<tr>
<th>Dependent Variable</th>
<th>Predictor</th>
<th>R</th>
<th>R Square</th>
<th>df</th>
<th>F-Value</th>
<th>P-Value</th>
<th>Beta</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Decision Making</td>
<td>Sports Activities</td>
<td>.301</td>
<td>0.090</td>
<td>1</td>
<td>50.562</td>
<td>.000</td>
<td>0.301</td>
<td>0.000</td>
</tr>
</tbody>
</table>

(374) significant at the 0.05
inferences depict the significant correlation between the two variables because showing a significance .603** at 0.01 level (2-tailed).

**Hypothesis 3**

**Ha** Demographic characteristic of the athletes brings variations in the mean score of research variables.

Analysis of co-variance shows the comparison of the mean score in perspective of their decision-making skills. Mean scores of 4.07 and 3.93 and std. deviation of 0.641 and 0.733, representing respectively male and female athletes as shown in table 5. Likewise, mean scores 3.75, 4.16 and 4.19 have been measured respectively for 18-20 years, 21-23 years and 24 and above years. At the same time, mean score and std. deviation has been noted as 4.13, 3.91, 0.612 & 0.651 respectively for athletes those who participated at team sports and individual sports.

The P-values for three categorical variables were found as (Gender=0.003, Age=0.004 & Sports Practiced=0.001) confirm the differences based on demographic characteristics of the respondents. The confirmation of the hypothesis means that demographic characteristic of the athletes brings variations in the mean score of research variables.

**Discussion**

The researchers focused on the role of sports as an important factor in developing decision-making skills among students’ athletes of Gomal University. The main hypothesis that sports participation has a significant role in the development of decision-making skills is confirmed by the analyzed data shown in (table 3). The ability to take the right decision in the right time is considered an imperative attribute for students in relation to their academic endeavors.

When we analyze the responses of athletes pertaining to the four questions [a) time management skill, b) proper planning, c) dealing with adversity, and d) the ability to adjust in a new situation developed through sports], all show that athletes acknowledged the role of sports in the development of these attributes. Seventy-six percent respondents, for instance, either strongly agreed or agreed with the statement that “one can develop time management skill through sports participation. Likewise, the analyzed data revealed that (83%) of respondents

<table>
<thead>
<tr>
<th>Predictor</th>
<th>Indicator</th>
<th>Girls School Hygiene</th>
<th>Girls Hygienic Behaviour</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sports Participation</td>
<td>Pearson-Correlation</td>
<td>.603**</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>0.02</td>
<td></td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>375</td>
<td>375</td>
</tr>
</tbody>
</table>

Significant at the 0.01 (2-tailed)

<table>
<thead>
<tr>
<th>Testing Variable</th>
<th>Categorical Variables</th>
<th>Groups</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>df</th>
<th>Table value</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Decision Making Skills</td>
<td>Gender</td>
<td>Male</td>
<td>334</td>
<td>4.07</td>
<td>0.641</td>
<td>1 (374)</td>
<td>3.84</td>
<td>0.003</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>41</td>
<td>3.93</td>
<td>0.733</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td>18-20 Year</td>
<td>153</td>
<td>3.75</td>
<td>0.758</td>
<td>2 (373)</td>
<td>2.61</td>
<td>0.004</td>
<td></td>
</tr>
<tr>
<td></td>
<td>21-23 Years</td>
<td>203</td>
<td>4.16</td>
<td>0.561</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>24 and above</td>
<td>19</td>
<td>4.19</td>
<td>0.598</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sports Practiced</td>
<td>Team Sports</td>
<td>326</td>
<td>4.13</td>
<td>0.612</td>
<td>1 (374)</td>
<td>3.01</td>
<td>0.001</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Individual Sports</td>
<td>16</td>
<td>3.91</td>
<td>0.651</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Significant at the 0.05
either agreed or strongly agreed with the statement that “sports develop the ability of planning”. The results indicated that (88%) respondents strongly agreed or agree with the role of sports in the development of the ability to deal with adversity. Eighty-five 85% of the athletes, either strongly agreed or agreed with the statement that “sports can develop the ability to adapt in any new situation”.

The results indicated that the majority of students’ athletes acknowledged the role of sports in the development decision-making skills shown in (table 4). It may be the result of university academic curriculum. Research suggests that sports should be considered as compulsory part of every educational curriculum [34]. Physical educationists considered sports as a valuable part of the educational curriculum. Sports is considered a unit of the study that helps prepare students to the world in which they live [35]. Some research has shown very positive effects of sports activities such as Volleyball, Basketball, Tennis, Shooting, Dance, Martial Arts, Swimming and Mountaineering on the development of problem-solving skills and academic performance of the students [36, 37]. Research approves of a team sports like Football, Hockey, Cricket and Baseball particularly it develops such qualities as punctuality, social adjustment [38]. The students’ athletes are believed to be role models for other students because of their social training. Therefore, students should be encouraged to take part in sports and athletic activities to get maximum benefits of it.

Conclusion
The main purpose of this research paper was to explore the role of sports in the development of decision making skill as one of the important life skills and to provide a road map that can assist the sports personnel in developing comprehensive sports program. Results of the study indicated that sports provide an excellent opportunity for students to learn skills that can help them in taking positive as well as effective decision. The present exploration affirmed that students can acquire a) time management skill, b) proper planning, c) dealing with adversity, and d) the ability to adjust in a new situation through active participation in sports activities. However, some demographic characteristics of the sports participants such as gender, sports experience, and format of sports have an influence upon the development of these skills developed through sports.

Limitation
The sample for this research paper was selected from students who participated in competitive sports events conducted by Gomal University, Dera Ismail Khan. Therefore, this can limit the application of results to other universities and to other settings as well.

Acknowledgement
First of all, we are immensely grateful to Barrie Gorden, Victoria University of Willington for his comments on an earlier version of the manuscript. Secondly, would also like to show our gratitude to our colleagues, Department of Sports Sciences and Physical Education, Gomal University, Dera Ismail Khan for sharing their pearls of wisdom with us during the course of this research paper. We are also immensely grateful to all the study participants who participated in the survey.

Conflict of interest
The authors have declared no conflict of interest.

References
12. Eccles JS, Barber BL, Stone M, Hunt J.


Information about the authors:

**Wasim Khan;** (Corresponding author); https://orcid.org/0000-0002-1888-2975; wasimkhan2057@gmail.com; Department of Sports Sciences and Physical Education, Gomal University, D.I.Khan; Indus HWY, DI Khan City, Dera Ismail Khan, Khyber Pakhtoonkhwa, Pakistan.

**Salahuddin Khan;** https://orcid.org/0000-0002-1491-9363; drslahuddinkhan@yahoo.com; Department of Sports Sciences and Physical Education, Gomal University, D.I.Khan; Indus HWY, DI Khan City, Dera Ismail Khan, Khyber Pakhtoonkhwa, Pakistan.

**Tasleem Arif;** https://orcid.org/0000-0002-0718-5330; Tasleemarif12345@gmail.com; Department of Sports Sciences and Physical Education, Sarhad University of Science and Technology, Peshawar; Landi Akhun Ahmad, Hayatabad Link Peshawar Ring Rd, Garhi Sikandar Khan, Peshawar, Khyber Pakhtunkhwa, Pakistan.

**Sohail Roman Khan;** https://orcid.org/0000-0002-0505-7538; Roman614015@gmail.com; Department of Sports Sciences and Physical Education, Gomal University, D.I.Khan; Indus HWY, DI Khan City, Dera Ismail Khan, Khyber Pakhtoonkhwa, Pakistan.

Cite this article as:
https://doi.org/10.15561/20755279.2019.0403

This is an Open Access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

http://creativecommons.org/licenses/by/4.0/deed.en

Received: 16.06.2019
Accepted: 25.07.2019; Published: 28.08.2019