

## **FIRST AID AS INFLUENTIAL FACTOR AFFECTING HEALTH AND SPORT' PERFORMANCE OF THE ATHLETES**

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### **ABSTRACT:**

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*First aid and its significance in sport activities was the main purpose of the present study. Also to come up, the insights of the two main concerned masses (athlete and director sport) of universities' about of first aid facilities influence as a factor upon the health status and sport performance of the KP, province of Pakistan was the place of work. Populace was private and public sector universities director sports and athletes. The 671 athletes and 31 director sport were selected as sample. The sample was selected through Proportionate sampling technique for the equal representation of populace in each university. The required information about first aid was obtained through a self-developed Likert type scale. Personal visit was made to each university for the distribution of the questionnaire. The returned response of the filled questionnaire was recorded 82%. The stepwise regression and independent-sample t-test were used to analyze the data. The findings of the study indicated that a significant effect was observed upon the health and sport performance of university athletes due non-availability of the appropriate facilities of first aid in sport events. And more effect was observed in private sector universities.*

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**Keywords:** *First aid, athletes, sport, public, private, University*

### **Introduction:**

In sport events, first aid is the essential assistance that is given to an injured player before formal treatment. The fundamentals behind first aid are to save life, avoid terrible, advance recuperation, and get restorative aid (de Souza & Tibeau, 2008).

The arrangement of the best possible facilities is the most extreme necessity for performance of the players life (Clakeley, 2011).

Proper arrangement of sport facilities lessens the opportunity of injury life (Abernethy & Bleakley, 2007).

Matheson & Baade (2004) said that, in the history of developed countries always university athletes represent their countries in the sports arenas to symbolized their countries in the world (Matheson & Baade, 2004).

The occurrence of injuries, disasters, and mishaps are seen from longstanding as the individual himself.

Pareks, recreational centers and educational institutions used to entertained the human being through Sport activities, where the threat of injury and mishap considerably more among participant (de Souza & Tibeau, 2008). Unequivocally injuries and physical activities (sports) identified with one another.

Lacking in the future of the athletes at risk due to unavailability of treatment on sports (Ransone & Dunn- Bennett, 1999).

During unintentional circumstances, athletes need first aid treatment otherwise it

might cause hazardous complexities (Halpin & Dick, 1999).

In educational institutions coaches and physical training instructors need to assume their job through the mindfulness and learning of first aid.

The learning about first aid is not only fundamental for instructors, yet in addition similarly significant for the students (Martindale, Collins, & Abraham, 2007).

Athletes may lose their even lives if the treatment methods, equipment's and application not practiced furthers and standardized level.

So the required apparatuses of first aid should be accessible for athletes (Clement, 2016). Dealing with the injuries in the play area, basics principle like P.R.I.C.E and Dr. A.B.C should be kept in mind (Mac Auley, 2012).

It is important for the well-being of athletes to have knowledge about the guide line of first aid (Bogden, 2000).

In educational organizations it is significant for educators and understudies to have information about the emergency treatment (Arikan & Sönmez, 2012).

A large number of the athletes are suffering sport injury and larger number of the athletes pull back to take an interest in sport due to no arrangement of first aid treatment on the spot.

Concerned authorities were not given any first aid facilities due to which in the city of Blumenau 287 (117 in sports) mishaps were recorded (Harada, Puccini Pedroso, Pereira, Brêtas 2007).

Also in recreational sport, creation and execution of independent activities is unsafe for the athletes, yet non-arrangement of the on-spot gear and favorable condition in recreational sport convey extra dangers (Casa & Stearns, 2016).

The athletes ought to recognize that usage of rules is only for their safety (Schnell, Mayer, Diehl Zipfel & Thiel, 2014).

Proper direction of qualified specialists leads toward the focused on goal in the field of sport. Certified experts should provide to take care of the athletes in the sports arenas (Dor-go, 2009).

Trainer should be master in CPR and in first-aid. Before beginning a sport competition the trainer or coach need to check the athletes after the injuries and rehabilitees to maintain the record for future first aid arrangement (Ertl & Christ, 2007).

Lacking arrangement of the certified and guaranteed specialists can make issues for the athlete (Ransone & Dunn-Bennett, 1999).

Arrangement of the certified specialists may necessary for the appropriate sports performance of athletes at competitions (Ericsson, 2004).

In the City of Hume the sport club and focuses call attention club consistently guaranteed that certified first aid work force are on obligation and very little attention was given to the first aid facilities on sports

competitions (Finch & Hennessy, 2000).

An emergency treatment during sport is the prime responsibilities of the concerned organization's staff (White, Donaldson, Sullivan, Newton, & Finch, 2016).

Insufficient technique for taking care of the damage during the session of sport and excessive preparing burdens would result to expand the pace of genuine injuries (Lim et al., 2012).

The perfect and proper preparing load improvement enhances the performance of athletes, while, negative and wrong preparing procedures limit the performance (Gabbett, 2016).

Inappropriate treatment of the injuries or abuse of the past damage influences the degree of sport interest among the athletes (Bianco & Eklund, 2001).

Predicament transportation must be available at the in the field of play and need to be considered as significant for the

circumstance of dangerous in sports event.

During the sports competition where the injuries occurs the most important thing is time which required appropriate transportation to bring the injured athletes to the health care centers (Wojtys et al., 1999).

The ambulance and all necessary equipment's (stretcher, carries, lifts and medications) are required for the injured athletes for comfortable treatment (Finch et al., 2011).

The arrangement of one rescue vehicle completely prepared to handle the injury situation skillfully during the sports competition (Wicker, Hallmann, & Breuer, 2012).

To promote the athlete's performance upward as well as athletes health the appropriate and complete first aid facilities are essential for the psychological satisfaction and physical protection of athletes (Finch & Hennessy, 2000).

The psychological pressure of injury refrain the peak performance of athletes at all level of competition whether at national and international level (Clarsen, Myklebust, & Bahr, 2013).

### **Method and Materials**

The following method was applied to carry the study smoothly.

Design of the Study: descriptive research design was adopted with normative survey method to entertain the respondents in appropriate manners.

Wyse (2012) describe that surveys are comparatively reasonable for researcher and also useful to describe the characteristics of a huge populace.

The survey method provides a room to the respondents to response fairly.

### **Population of the study**

The targeted population of the study was all the public (20) and private (10) sector universities of the KP, Pakistan. Athletes and director sports were the respondents.

Total number of athletes and director sports were 3336 and total 31 directors' sports also selected as population (1 from each university).

### **Sample and sampling**

20% was selected by following Gay (1987) sampling suggestions. The sample of athletes 671 and director (31) was selected using proportionate sampling technique. Total sample was 702.

### **Instrumentation:**

As a data collection instrument, Likert type questionnaire was used with five options.

### **Procedure**

The content of the questionnaire were ended with help of literature reviewed under the guidance of experts.

The validity, pilot testing, reliability of the questionnaire were also made from the experts and small portion of the selected population respectively for the accuracy and internal consistency of the scale items. The reliability of the scale was found .890.

### **Mode for data collection**

The personal visit was preferred to the selected universities of KP, Pakistan and tried to gathered authentic and real information from the selected sample.

All the respondents were given stipulated time of fifteen days to fill the questionnaire and sent the questionnaire back through post office. The 82% return rates of the response was recorded.

### **Data analysis**

To reach at certain findings the stepwise regressions and independent sample t-Test was practiced as inferential statistics with help of SPSS version 25 to analyze the gathered information.

### **Results and discussion**

#### **Table # 1**

A Stepwise regression shows the effect of 8 different models of first aid upon the sports performance of athletes at public sector universities (non-availability of the on-spot first aid facilities, non-availability of the latest equipment for first aid, deficient

availability of the qualified doctors, the fear of improper handling of injuries, non-availability of the transport facilities, ignorance of the basic first aid principles, first aid as a dominant factor in injuries and less availability of first aid facility impedes participation of the athletes at national or international level).

Model	R	R <sup>2</sup>	Adjusted R <sup>2</sup>	F	Us $\beta$	t	Sig.
1	.282 <sup>a</sup>	.080	.077	36.555	.130	5.963	.000
2	.326 <sup>b</sup>	.106	.102	24.404	.167	6.400	.000
3	.365 <sup>c</sup>	.133	.127	20.953	.204	8.962	.000
4	.372 <sup>d</sup>	.139	.130	14.415	.220	9.321	.000
5	.479 <sup>e</sup>	.230	.220	24.273	.315	14.697	.000
6	.487 <sup>f</sup>	.237	.226	21.039	.335	15.733	.000
7	.488 <sup>g</sup>	.238	.225	18.107	.337	15.807	.000
8	.504 <sup>h</sup>	.254	.239	17.166	.359	16.591	.000

*a = 0.01*

The table 1 reveals the effect of eight different models of first aid upon the sport in public sector universities' athletes. Data shows the 8 % ( $p < .01$ ) of variation due to model 1 (a) upon the sport performance of athletes, therefore, model 1 & 2 effect upon the sports performance of the athletes was 10.60 %, statistically, ( $p < .01$ ), Model 1, 2 & 3 have same results in the shape of variation upon the sport performance of athletes 13.30 % ( $p < .01$ ), Model 1,2,3 & 4 have also effects on sport performance of the athletes was 13.90 % and p-value is lower as compare to standard level ( $p < .01$ ). variation due to model 1, 2,

3, 4 & 5 upon the sport performance of athletes was 23 % ( $p < .01$ ), in the same table the researcher found in model 1, 2, 3, 4, 5 & 6 effect on sports performance of athletes was 23.70% ( $p < .01$ ), the effect of model 1, 2, 3, 4, 5, 6 & 7 upon the sports performance of athletes was 23.80 % ( $p < .01$ ) and the effect of model 1,2,3,4,5,6,7 and 8 was 25.40 % ( $p < .01$ ). The data indicates that collective 8 models of independent variables (first aid) 25.40 % ( $p < .01$ ) variation happens in the sport performance of public university's athletes. Hence, the entire regression model significantly affects on sport performance of

the public sector university athletes.

**Table # 2**

A Stepwise regression shows the effect of 8 different models of first aid upon the sports performance of athletes at Private sector universities (non-availability of the on-spot First aid facilities, non-availability of the latest equipment for first aid, deficient availability of the qualified doc-

tors, the fear of improper handling of injuries, non-availability of the transport facilities, ignorance of the basic first aid principles, first aid as a dominant factor in injuries and less availability of first aid facility impedes participation of the athletes at national or international level) .

Model	R	R <sup>2</sup>	Adjusted R <sup>2</sup>	F	Usβ	T	Sig.
1	.332 <sup>a</sup>	.110	.104	19.513	.182	4.417	.000
2	.402 <sup>b</sup>	.161	.151	15.110	.240	4.553	.000
3	.519 <sup>c</sup>	.269	.255	19.121	.440	8.046	.000
4	.567 <sup>d</sup>	.321	.304	28.328	.563	9.907	.000
5	.680 <sup>e</sup>	.462	.445	26.495	.611	13.728	.000
6	.690 <sup>f</sup>	.476	.455	23.123	.633	13.776	.000
7	.692 <sup>g</sup>	.479	.455	19.972	.635	13.977	.000
8	.712 <sup>h</sup>	.507	.481	19.394	.685	14.179	.000

*a = 0.01*

The table 2 explains the effect of eight different models of first aid (Independent variable) upon the sport performance of athletes in private sectors universities. The 1<sup>st</sup> model of regression (a) shows that 11 % effect upon the sport performance of university athletes, and the stander value

also lower to the p-value ( $p < .01$ ), similarly, the model 1 & 2 have 16.10 % ( $p < .01$ ) positive effect upon the sports performance of the athletes, in the same table, model 1, 2 & 3 also effect on sport performance of athletes 26.90 %, and the above model is accepted ( $p < .01$ ), therefore, model 1, 2, 3 & 4 on sport performance of the athletes was



32..10 % and have same results which show in bracket, ( $p < .01$ ). 46. 20 % ( $p < .01$ ) Variation due to model 1, 2, 3, 4 & 5 upon the sport performance of athletes was recorded in same the same table, Model 1, 2, 3, 4, 5 & 6 significantly effect upon the sports performance of athletes which was 47.60%, ( $.01 > p$ -values), the results of model 1, 2, 3, 4, 5, 6 & 7 have positive effect on the sports performance of university athletes which was noted 47.90 % ( $p < .01$ ), and in last the model 1,2,3,4,5,6,7 and 8 was showing 50.70 % of variation occurs ( $p < .01$ ). The data indicates that accumulatively 8 models of first aid (independent variables) 50.70 % ( $p < .01$ ) variation in the sport performance (dependent variable) of public sector university's athletes. As a result, first aid has significantly effect on sport performance of private sector university's athletes.

sities (non-availability of the on-spot First aid facilities, non-availability of the latest equipment for first aid, deficient availability of the qualified doctors, the fear of improper handling of injuries, non-availability of the transport facilities, ignorance of the basic first aid principles, first aid as a dominant factor in injuries and less availability of first aid facility impedes participation of the athletes at national or international level.)

### **Table # 3**

Stepwise regressions showing the effect of 8 different models of first aid upon the sports performance of athletes both in public and private sector univer-

Model	R	R <sup>2</sup>	Adjusted R <sup>2</sup>	F	Usβ	T	Sig.
1	.270 <sup>a</sup>	.073	.071	44.978	.134	6.707	.000
2	.332 <sup>b</sup>	.110	.107	33.374	.180	7.494	.000
3	.401 <sup>c</sup>	.161	.157	36.391	.245	12.895	.000
4	.418 <sup>d</sup>	.175	.169	30.045	.277	12.914	.000
5	.544 <sup>e</sup>	.296	.290	47.716	.385	20.206	.000
6	.557 <sup>f</sup>	.310	.303	42.366	.413	21.717	.000
7	.560 <sup>g</sup>	.314	.305	36.864	.422	22.045	.000
8	.578 <sup>h</sup>	.334	.325	33.416	.432	22.790	.000

*a = 0.01*

Table 3 describes the impact of eight different models of first aid (Independent variable) in (both public and private sector universities) upon sport performance (independent variable) of athletes. The effect of model 1 upon sport performance of athletes was 7.30 % ( $p < .01$ ). the influence of model 1 & 2 upon the sport performance was 11 % ( $p < .01$ ) similarly the effect of model 1, 2 & 3 upon the sport performance of athletes 16.10 % ( $p < .01$ ). The effect of model 1, 2, 3 & 4 on sport was 17.50 % ( $p < .01$ ). Effect of model 1, 2, 3, 4 & 5 upon the sport performance of athletes

was 29.60 % ( $p < .01$ ), the effect of model 1, 2, 3, 4, 5 & 6 upon the sports performance of athletes was 31 % ( $p < .01$ ), the effect of model 1, 2, 3, 4, 5, 6 & 7 upon the sports performance of athletes was 31.40 % ( $p < .01$ ) and the effect of model 1,2,3,4,5,6,7 and 8 was 33.40 % ( $p < .01$ ). The data indicates that accumulatively 8 models of first aid (independent variables) 33.40 % ( $p < .01$ ) variation take place in the sport performance (dependent variable) of both sector universities' athletes. Also the data indicates that significant affect was due to 8 different models of first aid upon

the sport performance in both public and private sector university's athletes.

**Table # 4**

Independent sample t-Test showing the mean difference between public and private sector university's respondents regarding the effect of 8 different models of first aid upon the sports performance of athletes at university level (non-availability of the on-spot First aid facilities, non-availability of the latest equipment for first aid, deficient availability of the qualified doctors, the fear of improper handling of injuries, non-availability of the transport facilities, ignorance of the basic first aid principles, first aid as a dominant factor in injuries and less availability of first aid facility impedes participation of the athletes at national or international level).

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Testing Variables	University type	N	Mean	Std.	df	T	Sig.
Non-availability of the on-spot First aid facilities.	Public Sector Universities	413	4.1961	.93880	571	1.767	.314
	Private Sector Universities	160	4.0438	.89265			
Non availability of the latest equipment for first aid.	Public Sector Universities	413	4.0194	.97024		-.347	.460
	Private Sector Universities	160	4.0500	.88878			
Deficient availability of the qualified doctors	Public Sector Universities	413	3.8208	1.15618		-4.741	.000
	Private Sector Universities	160	4.2813	.66514			
The fear of improper handling of injuries	Public Sector Universities	413	4.0823	1.01350		-4.158	.000
	Private Sector Universities	160	4.4375	.60071			
Non availability of the transport facilities	Public Sector Universities	413	3.9104	.97503		-3.391	.191
	Private Sector Universities	160	4.2125	.90691			
Ignorance of the basic first aid principles	Public Sector Universities	413	3.9249	.99595		-4.045	.038
	Private Sector Universities	160	4.2813	.80229			
First aid as a dominant factor in injuries.	Public Sector Universities	413	3.8039	.99405		-3.776	.204

	Private Sector Universities	160	4.1375	.82024			
Less availability of first aid facility impedes participation of the athletes at national or international level	Public Sector Universities	413	4.0387	.98457			
	Private Sector Universities	160	4.1438	1.12628		-1.099	.001

$\alpha = 0.01$

Table no. 4 indicates, mean value of non-availability of on-spot first aid facilities in both type of institutions was 4.19, in private institution was 4.04,  $t_{571} = 1.767$ ,  $p = .314 > 0.01$  which indicate no significant difference in the perception of both types of institutions of respondents regarding the effect of non-availability of the on-spot first aid facilities upon the sports performance of the athletes.

Mean value of non-availability of the latest equipment for first aid in public sector universities was 4.01 and in private sector universities was 4.05,  $t_{571} = -3.47$ ,  $p = .460 > 0.001$  which shows no difference between the view point of public and private sector universities' respondents

regarding the consequence of non-availability of the latest equipment for first aid upon the sport performance of university athletes. Mean of public sector universities respondents was 3.82, in private sector universities was 4.28,  $t_{571} = -4.9741$ ,  $p = .000 < 0.01$ , which shows significant difference and indicates greater effect in public institutions upon the sport performance of athletes.

The mean of the fear of improper management of injuries in public institutions was 4.08, private sector universities was 4.43,  $t_{571} = -4.158$ ,  $p = .000 < 0.01$  which shows that there is more statistical effect was observed private institutions and thus significant difference was found in the views of respondents of both institutions.

Mean value of public institutions about non-availability of the transport facilities was 3.91, Mean of private institutions was 4.21.  $t_{571} = -3.391$ ,  $p = .191 > 0.01$  which show no differences in the views points of respondents regarding the statement. The mean of ignorance of the basic principles in public universities' respondents was 3.92, in private sector universities was 4.28,  $t_{571} = -4.045$ ,  $p = .038 > 0.01$  which reveals that no significant difference was observed between the view point of public and private sector universities respondents and same effect was observed due ignorance of the basic first aid principles in both type of universities.

The mean of first aid as a dominant factor in injuries in public sector universities was 3.80, in private sector universities was 4.13,  $t_{571} = -3.776$ ,  $p = .204 > 0.01$  which depicts that same effect was observed in both institutions and similarly no significant variance was recorded between the stance of public and private sector university respondents about first aid as tool for managing sports injuries and maintaining athletic performance.

It shows that less availability of first aid facility effect the participation of the athletes in sports in both institutions (Mean of public institutions was 4.03, Private institutions was 4.14,  $t_{571} = -1.099$ ,  $p = .001 < 0.01$ ) it show that there is significance difference in the perception of both institutions regarding the statement.

## **Discussion**

The finding of the present study was supported by the study of Orchard and Seward (2011) that non-availability of medicinal staff and capable professionals create a detachment between athletes and sport. The updated information of first aid and competent experts promote the level of sports participation among the athletes.

The findings of the study conducted by Radelet, Lephart, Rubinstein, and Myers (2002) found that deficiency of first aid and poor coaching create injury.

The author further stated that trainers and coaches should educate how to deal with neck, head and spine injury when it occurs during the session of sport. These finding are also in line with pre-

sent research finding but the only difference is that his population school children.

Finding of the study carried out by Courson (2007) also support the findings of this emerging study findings i.e. proper arrangement of emergency treatment enhance the level of sport participation and as well as sport performance of the participants. Finding of the study conducted by Marwat et al. (2016) shows that there is significant role of first aid in sports.

### **Conclusion**

This is affirmed that scarce availability of the first aid facilities i.e. the on-spot first aid facilities, sub-standard equipment, unawareness of basic principles of handling the sport injuries, non-availability of the qualified experts influences the sport performance of the athletes in both type of education institutions i.e. (public and private sector universities).

In respect of health status of the athletes, it is also found that most of the university's athletes avoided participating in sport for long time due to fear of injury,

that later on covert in permanent disability. Due to fear of occurrence injuries, meager participation was recorded among the sports persons at university level.

The study also confirmed that there are significance effects of first aid facilities on sports as perceived by the respondents of private sector universities as compare to public sector universities upon the sport performance of the athletes due to deficient first aid facilities.

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