



## Descriptions and overall safety status of sport fields in schools of Ardabil city, Iran

Zahra Sepehri<sup>1</sup> and Mahboub Sheikhalizadeh<sup>2\*</sup>

Department of Physical Education and Sport Sciences, Tabriz Branch, Islamic Azad University, Tabriz, Iran

Department of Physical Education and Sport Sciences, Ahar Branch, Islamic Azad University, Ahar, Iran

### Original Article:

Received 25 March, 2016 Accepted 28 April, 2016 Published 30 June, 2016

### ABSTRACT

The aim of the study was descriptions and overall situation rating of sport fields in schools of Ardabil city, Iran. The population consisted of all schools in Ardabil city. To collect the required data, 153 questionnaires were distributed among these schools. After data collection, analyzing data was performed using statistical methods. According to research findings, it can be said conclusively that the situation of sport fields is worrying in Ardabil city schools. Based on the findings it seems that sport fields in primary schools require more attention on the part of the authorities because students are more active and hence, injury risk is higher in this age.

### Keyword:

physical education,  
sports equipment,  
sports field

---

\* Corresponding author: Mahboub Sheikhalizadeh  
[m-sheykhalizadeh@iau-ahar.ac.ir](mailto:m-sheykhalizadeh@iau-ahar.ac.ir)

## INTRODUCTION

Exercise and physical activity is becoming increasingly important every day. In numerous studies, the positive effects of physical activity are discussed. Morris et al. (1997) have focused on the negative effects of physical inactivity in numerous articles (McGinnis and Foegen, 2004, McGinnis, 2015). In addition, physical activity can reduce anxiety and depression, and increases ability to perform daily living tasks. Sports in learning environments also have an important and positive role in learning. Due to this expected benefits, physical activity is expanded every day (Arghami et al., 2014). In recent years developing sport has flourished in environments such as schools and universities. However, the occurrence of various events and alarms is inevitable phenomenon programs that each year a large number of athletes and spectators are faced around the world and billions of dollars is added in costs for organizations and sport clubs. So it has sometimes been considered for the researcher as one of the barriers for participation in sport and recreation activities. Schools not only should consider the safety considerations seriously against student harm, but rather that they should present good models of secure educational spaces and sports facilities for students (Dishman et al., 2005). There is no doubt that the environment health and safety are effective in health promotion and talent. Available evidence suggests that environmental health and safety in schools has received insufficient attention. Research in the field of accidents in order to prevent these harms and injuries is an important underlying applied research and can guide the national program to deal with it. Therefore, the aim of the study was descriptions and overall situation rating of sport fields in schools of Ardabil city, Iran.

## Methodology

The research method was descriptive and correlation type. The population of the study included all public and private schools in regions I and II of Ardabil city. Given that about 589 schools in the mentioned regions are working, the randomized cluster sampling, 265 schools were selected as sample. It should be noted that in referring to these schools to collect data, it was found that some buildings serve as two and in rare cases even as three schools. In order to avoid mixing statistics, these schools were removed from the sample list and the data collection procedure, only schools with one shift/gender were considered. This reduced the number of the sample to 182 cases. Finally, with regard to the non-delivery of the completed questionnaires by some schools (n = 19) despite conducted follow-up as well as distorted and incomplete questionnaires (n= 10), the total

number of questionnaires used in this study reduced to 153. The study was performed after describing in detail to participants the introductory remarks about the gauges and the purpose of the test as well as how to respond to tests. It can be noted that regarding the ethical considerations, they were assured that the information will be used only for the research purpose and kept confidential. The following checklist and questionnaire were used in the data collection procedure.

**Security checklist of sport fields:** the list of checklist by Farsi (2007) was used in this study in relation to safety and sports spaces. This checklist contains 93 questions that were designed in 5 parts which contains 11 questions relating to the safety of sports grounds, 27 questions about the equipment and facilities, 17 questions related to the safety of installations and covers, 23 questions related to the design and dimensions and 15 questions related to limits and lines. It should be noted that the validity of this checklist had already been measured. The reliability of the checklist was obtained through Cronbach's alpha coefficient (0.76). Table 1 shows the distribution of questions in this questionnaire.

Table 1. Distribution of questions in the *school safety* questionnaire

Safety components	Number of questions
Inside and surfaces components	11
Limits and lines component	15
Covers and facilities components	17
Design and dimensions component	23
Equipment component	27
Total	93

Scoring the checklists was done through the following steps: Any Yes and No answer were awarded 2 and 1 point, respectively. The resulting score was calculated generally in order to give a total score in safety for each education unit (school). Then, obtained score by each of the elements of the checklist were calculated separately. Descriptive statistics were used in order to analyze the data.

## Results

Table 2 shows the overall situation in safety statistics of schools in Ardabil city.

Table 2. The overall safety status of sport fields in schools of Ardabil

Safety components	Number of questions	Minimum score	Maximum score	Average
Inside and surfaces components	11	12	22	15.88
Limits and lines component	15	17	30	23.04
Covers and facilities components	17	21	34	27.09
Design and dimensions component	23	25	42	30.33
Equipment component	27	28	52	35.26
Total	93	110	168	130.91

It should be noted that the maximum score for each component in the best safety situation can be 22, 30, 34, 46

and 54 and the total sum of components (total safety score), the highest safety score, would be 186. In contrast, the

possible minimum score in components would be 11, 15, 17, 23 and 27 and in total the minimum possible score can be 93, respectively. In other words, the scores of the safety ranged as follows.

Table 3. The minimum and maximum scores for the safety across safety components

Safety components	Number of questions	Possible minimum score	Possible maximum score
Inside and surfaces components	11	11	22
Limits and lines component	15	15	30
Covers and facilities components	17	17	34
Design and dimensions component	23	23	46
Equipment component	27	27	54
Total	93	93	186

It should be noted that education centers in Ardabil city is divided into two regions. Table 4 shows the safety status of schools in the city across region I and II.

Table 4. Safety situation of sport fields in the city across region I and II

Safety components	Number of questions	Region					
		Region I			Region II		
		Minimum	Maximum	Average	Minimum	Maximum	Average
Inside and surfaces components	11	12	21	16.42	12	22	15.43
Limits and lines component	15	17	29	23.35	17	30	22.82
Covers and facilities components	17	21	34	26.51	21	34	27.43
Design and dimensions component	23	25	42	30.09	25	42	30.52
Equipment component	27	28	52	36.37	28	52	34.49
Total	93	111	168	130.72	110	168	131.02

Table 4 shows there is no significant difference in schools safety situation between region I and II. At the same time, compared to the ideal level of safety (score 186), it can be noted that the level of safety in city schools is lower than the standard status and it can be said that most schools were generally at the level of moderate to low.

Table 5 shows Safety situation of sport fields across educational stages in Ardabil city. As can be seen mean scores for each of the safety components show almost similar numbers. It can be argued that different levels of education and sports fields in the city in terms of safety had similar situation and at the same time were below the average.

Table 5. Safety situation of sports fields in the separation of educational stage in Ardabil city

Safety components	Number of questions	Educational Stage								
		Primary school			Guidance school			High school		
		Minimum	Maximum	Average	Minimum	Maximum	Average	Minimum	Maximum	Average
Inside and surfaces components	11	12	22	15.86	13	21	15.91	12	21	15.88
Limits and lines component	15	17	30	23.04	19	27	22.77	19	29	23.31
Covers and facilities components	17	21	34	27.39	21	30	26.27	24	31	27.26
Design and dimensions component	23	25	39	30.58	25	41	29.26	25	42	31.05
Equipment component	27	28	51	34.70	28	48	33.38	30	52	37.78
Total	93	110	162	131.17	115	152	126.53	121	168	134.43

Safety situation of sports fields across boys' and girls' schools are shown in Table 6. The average scores as well as total average scores represent that girls' and boys' schools

had almost equal safety level of safety status, which is well below standards and far from satisfactory.

Table 6. Safety situation of sports fields across gender in Ardabil city

Safety components	Number of questions	Gender					
		Boys			Girls		
		Minimum	Maximum	Average	Minimum	Maximum	Average
Inside and surfaces components	11	12	21	16	12	22	15.79
Limits and lines component	15	17	29	23.08	17	30	23.02
Covers and facilities components	17	21	31	26.43	21	34	27.52
Design and dimensions component	23	25	42	30.39	25	41	30.28
Equipment component	27	28	52	35.62	28	51	35
Total	93	111	168	130.82	110	162	130.98

### Conclusion

The aim of the study was descriptions and overall situation rating of sport fields in schools of Ardabil city, Iran. According to research findings, it can be said conclusively that the safety status of sport fields in Ardabil city schools is worrying. So, it seems to be quite wise to pay more attention to the sport fields in primary schools especially considering the fact that students at this age are generally more active and hence, more prone to injury. Also, Poznez (2000) stated that the hazards are concerned most commonly at age 5 to 9 years, when children are more exposed to injury in schools (as cited in Wang et al., 2012). To explain these findings, it can be said that any conditions in exercise space can potentially lead to injury in athlete, the organizer of the training and the audience in the field. Factors that may endanger the safety situation in sports field are numerous including sports equipment and ground equipment. Among the most important cases in discussion of building and school field is the issue of facilities and sport stadium. Department of Physical Education and School Sports are susceptible segments of the incidence and risk of accidents is not an exception. major steps must be taken towards resolving defects with complete knowledge of safety standards in school sports field and identifying unsafe cases. Today, the issue of safety in the exercise is the most important issues in this area particularly students' sports. This can be divulged to a more dangerous situation such as unsafe fields and sports facilities in schools, which could cause irreparable damage. According to the findings, it can be suggested that sport fields in schools should be smooth, clean, without cracks, have adequate coverage for physical activity, and with no ups and downs to prevent any injury or damage to student status. It is also recommended that the equipment used for sports activities of students should have the necessary quality and standard depending on the type of exercise, number of students with high quality in order to have necessary and sufficient efficiency to make the best use of them. Available Items in school sports are sports facilities including water pipes, networks and electricity, windows, some gas splits, columns and walls. Therefore, equipments should be protected in the above-mentioned

tasks with the utmost precision in order to have no danger to athletes and students.

### References

- Arghami Sh, Zahirian Q, Allahverdi T, 2014. Security checklist standardization for sport fields in schools. *Journal of Health and Job Safety*, 4: 2-8.
- Farsi AR, Halizadeh M, Siah M, Rasekh N, Darai H, 2007. Investigating the immunity status of sport centers of Tehran and providing appropriate solutions. *Research in Sport Science*, No. 16.
- Dishman RK, Motl RW, Sallis JF, 2005. Self-management strategies mediate self-efficacy and physical activity. *American Journal of Preventive Medicine*. 29(1):1-8.
- McGinnis JM, 2015. Mortality Trends and Signs of Health Progress in the United States Improving: Understanding and Action. *The Journal of American Medical Association*. 314 (16): 1699-1700.
- McGinnis JM, Foege WH, 2004. The Immediate vs the Important. *The Journal of American Medical Association*. 291 (10): 1263-1264.
- Wang H, Dwyer-Lindgren L, Lofgren KT, 2012. Age-specific and sex-specific mortality in 187 countries, 1970–2010: a systematic analysis for the Global Burden of Disease Study 2010. *Lancet*: 380: 2071–2094.