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Investigating the Effects of Covod-19 Outbreak on Educational and Research Processes in Sports

Ehsan Asadollahi*
Assistant Professor of Sports Management, Faculty Member of Sanabad Golbahar Higher Education Institute, Golbahar, Iran
Ahmad Nazari Torshizi
PhD candidate Sport management, Faculty of Sports Sciences, Ferdowsi University of Mashhad, Mashhad, Iran
Reza Heydari
PhD candidate Sport management, Faculty of Sports Sciences, Ferdowsi University of Mashhad, Mashhad, Iran
Ali Abrishami
M.Sc. Student of Sports Management, Faculty of Sports Sciences, Ferdowsi University of Mashhad, Mashhad, Iran

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Abstract

The spread of the corona virus has so far affected education and research in sport. The aim of this study was to investigating the effects of Covod-19 outbreak on Educational and research processes in sports. The present study is an applied research in terms of nature and from the aspect of data analysis method is descriptive-exploratory that data collection was done in the field. The statistical population included an unlimited number of all sports directors, sports teachers and professors, sports coaches, sports producers, sports service providers, sports referees, athletes, sports equipment sellers and sports media activists in Iran, and 600 samples answered a questionnaire of 20 research questions. In order to evaluate the reliability of internal consistency and its stability, Cronbach's alpha index was used in a preliminary study that the alpha value for the whole questionnaire was 0.972. Data analysis was performed using descriptive and inferential statistics with the help of SPSS and AMOS software. Exploratory factor analysis showed that education and research in sport were affected by COVID-19. This finding can help the relevant institutions and organizations in the country to improve the situation of education and research in sports in the post-Corona era.

Keywords: Covod-19 outbreak, Educational and research, Schools, Universities, Sport clubs

* **Author's e-mail:** asadollahiehsan92@gmail.com **(Corresponding Author)**; ahmad.nazari.torshizi@gmail.com, reza.hdr1994@gmail.com, aliabrishami98@gmail.com

INTRODUCTION

The outbreak of coronavirus has affected all activities. This disease (COVID-19) appeared in late December 2019 in Wuhan, China (Chahor et al., 2020). The initial outbreak of COVID-19 in Wuhan spread rapidly and affected other parts of China. Wuhan officials took unprecedented action and locked the city on January 23, 2020, to further reduce the risk of transmitting the disease (Jiang et al., 2020). The same thing was done later in other parts of China. Within a few weeks, COVID-19 cases were discovered in several other countries, and soon it became a global threat (SPNA et al., 2020). The World Health Organization (WHO) has declared the coronavirus epidemic a pandemic (WHO). As of March 29, the virus has spread to more than 177 countries, infecting many people and leading to death (Dong et al., 2020). Areas most severely affected by the outbreak include China, Europe, Iran, South Korea, and the United States (Khachev et al., 2020). On March 13, the WHO announced that Europe had become the new center of the epidemic. China launched an offensive and managed to reduce new cases. Unfortunately, this decline did not exist in other parts of the world, including Iran, Italy, the United States, and other European countries. That is why today the world is facing a much more serious crisis than the early crises, and the outbreak of the Corona virus continues (Crown, Liu, Missouri and Wilson, 2020) because it has made significant changes in lifestyle and even educational issues.

Efforts to reduce the prevalence of COVID-19 virus among the young and adult population have led to the widespread closure of schools, colleges, universities and other educational institutions in many countries. As of March 25, 150 countries have closed schools and educational institutions across the country, affecting more than 80% of the world's student population. Several countries have implemented local school holidays (Liu et al., 2020) and these holidays are expected to continue throughout our country. Due to growing concern about COVID-19, an increasing number of universities around the world have postponed or canceled all university events such as sports (both on-campus and off-campus) and other activities. Universities have rapidly shifted their courses and programs from face-to-face to online (Lou et al., 2020; Lim, 2020). In this review, the author highlights the potential

impact of the terrible outbreak of COVID-19 on physical education teaching, which also has many units in practice.

Physical education is an educational process in which physical activities are used as a way to acquire skills, readiness, knowledge and positive attitudes in order to achieve optimal growth, general health and maximize opportunities for physical activity (Kashani et al., 1400). In the days of the coronavirus outbreak, when it is not possible to hold classes in person at universities, the decision to hold practical courses, especially general physical education for students, is also one of the main concerns of university administrators. Because it is not possible to do practical lessons and evaluate them online. In addition, students who do not have access to the Internet suffer from an obvious weakness when participating in the assessment process, which negatively affects their GPA (Alrevis et al., 2018). In addition to the process of physical education, the research process has also been affected by the outbreak of this epidemic, because laboratory and experimental research has been disrupted, the interview process has become difficult, access to professors and experts is not easily accessible, and ... damage There are so many types it's hard to say. Researchers have looked at different types of e-learning research; However, due to the sudden outbreak of the coronavirus and the sudden closure of in-class classes at universities, little research has been conducted in the field of holding practical physical education classes during the outbreak of the coronavirus. Among the researches conducted in the field of virtual and e-learning, Rodriguez, Seiji and Louise (2018) in reviewing the evaluation process in e-learning concluded that in order to achieve higher quality in the e-learning environment, it is necessary that the learning and teaching process Be constantly evaluated. In another study, the results of Al-Habb and Rowley (2018) showed that e-learning has been implemented in universities of different countries; However, despite the large investments in this field, the level of use of these systems by professors and students in both developed and developing countries is often low. They also stated that the success factors of e-learning are different from the point of view of students and professors, and the characteristics of the teacher, the characteristics of the student, ease of access and support, and education are among the factors that affect the success of e-learning. In the field of domestic research in the field of virtual

education, the results of Jazini research (1397) showed that virtual education courses on the development of knowledge and educational content, organization of educational materials, flexibility, workload and evaluation methods, elements of teaching-learning activities, feedback provided, help It is effective for students and the ability to motivate students. The results also showed that the use of information technology and the development of virtual education is effective in learning and teaching students. Findings of Ghorbankhani and Salehi (2016) also showed that virtual education in the higher education system faces various challenges and has a long way to go to reach optimal conditions and improve its quality requires a serious view of the trustees and avoidance of education. The second is such teachings.

By saying this, it is understood that disciplines such as physical education that are dependent on practical courses and their research process involves a different range of methods (experimental, qualitative, quantitative and content analysis) despite the virtualization, Significance can not explain the process of education and research, so the researcher seeks to identify the effects of this pandemic on educational and research processes in sports.

METHOD

The present study is an applied research in terms of nature and purpose, in view point of the type of data search is quantitative, in terms of data collection time, is in the category of current research and from the aspect of data analysis method is descriptive-exploratory that data collection was done in the field. The statistical population included an unlimited number of all sports directors, sports teachers and professors, sports coaches, sports producers, sports service providers, sports referees, athletes, sports equipment sellers and sports media activists in Iran. In order to obtain the maximum opinions of the statistical population, 600 people were considered as a sample who were selected by simple random sampling and answered the online questionnaire. Data were collected using a researcher-made 27-item questionnaire on the effect of coronavirus outbreak on education and research in sports. All items are operationalized with a five-point Likert scale (strongly disagree= 1, completely agree= 5). After confirming the content validity of the questionnaire by experts, the researchers collected quantitative data. In order to evaluate the reliability of internal consistency and its stability,

Cronbach's alpha index was used in a preliminary study (including 30 people) (Asadollahi et al, 2019: 493) that the alpha value for the whole questionnaire was 0.972, which this coefficient was confirmed again after complete collection of questionnaires. Sample adequacy was also evaluated as desirable one according to the index (KMO = 0.9). In order to analyze the research data, demographic data and a questionnaire were first examined using descriptive statistical methods (mean, standard deviation, percentages, etc.). Then, in the inferential statistics section, via the exploratory factor analysis test method, the structure of the general factors was determined. According to the results of exploratory factor analysis, the education and research in sports was affected by COVID-19. Then, by using of one-sample t-test, of the effect of the outbreak of COVID-19 disease on education and research in sports was determined, and finally, path analysis was modeled by structural equation modeling and according to the results of the exploratory model. It must be noted that all statistical analyzes were performed through SPSS 24 and Amos statistical software.

RESULTS

Description of the demographic information of the sample under study showed that the respondents were mostly in the age group of 36 to 40 years with 40.8% (245 people) and in the field of activity of the teacher with 32.8% (197 people). Also, most of the respondents at the master's level with 40.3% (242 people) and the highest frequency of gender was related to men with 52.5% (315 people). Also, a quantitative description of the amount of research variables and the values of skewness and Kurtosis is shown in Table 1:

Table 1: Quantitative description of the amount of research variable

	Mean	Std. Deviation	Median	Minimum and maximum of possible score	Skewness	Std. Error of Skewness	Kurtosis	Std. Error of Kurtosis
education and research in sports	4.01	1.95	3	1-5	0.586	0.100	-0.135	0.199

The results of Table 1 showed that the average effects of coronavirus on education and research in sports is 4.01 of the maximum score of 5 and the median of 3, are above average.

Before the exploratory factor analysis test, the adequacy of the samples was measured by KMO and Bartlett tests (Table 2):

Table 2: KMO and Bartlett test results

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.960
Bartlett's Test of Sphericity	Approx. Chi-Square	40754.880
	df	1485
	Sig.	0.000

The KMO index value for items related to the effects of corona on the education and research in sports was 0.960, which is a very well value for the good fit of the factor model. The value of Bartlett test statistic was 4075/880, which confirms the use of this method for data.

In this section, we will review the exploratory factor analysis tests (Table 3):

Table 3: Exploratory factor analysis of the effects of corona virus on the process of education and research in sports

Variable	Dimensions	Factor loads
Education and Research processes	Effect on job and professional training of employees and managers in sports	0.76
	Effect on academic sports activity	0.88
	Effect on sports in schools and vocational schools	0.90
	Effect on the activity of scientific conferences and seminars	0.85
	Effect on research and development plans and projects in sports	0.76
	Effect on sports talent identification	0.84
	Effect on educational activities of coaches and referees	0.85
	Effect on public and championship sports education	0.82
	Effect on the activity of sports science associations	0.81

The results of Table 3 showed that the effect of coronavirus on education and research processes in sports can be divided into 9 factors. It must also be noted that 68.44% of the data variance in the above model can be explained.

In order to confirm the structure of the questionnaire and explain the factor load of the effect of COVID-19 on education and research processes in sports, the first-order factor analysis was performed by using of the Maximum likelihood method (Figure 1):

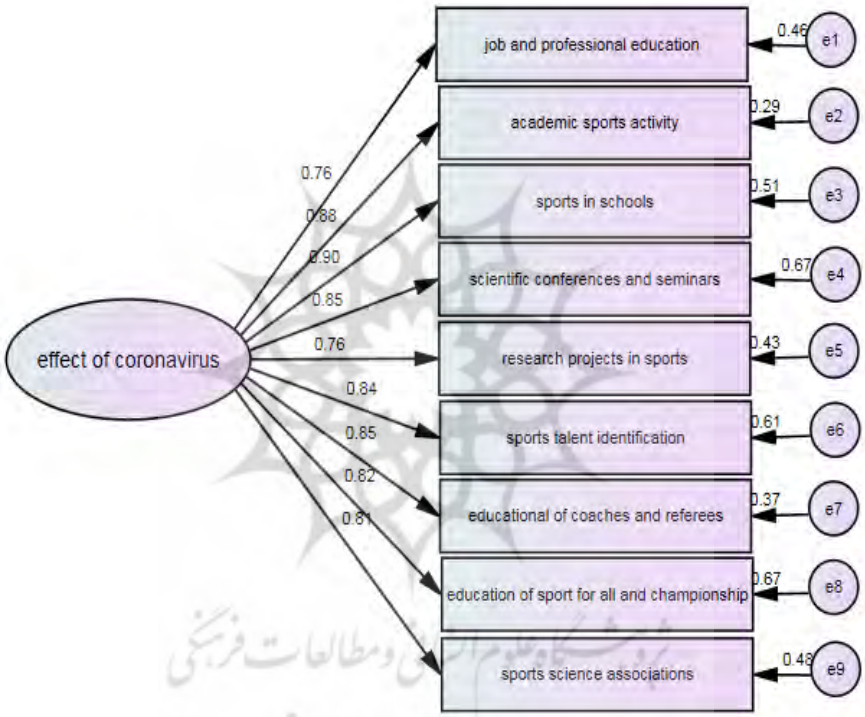

Figure 1. Model of Education and Research processes in sport under the influence of COVID-19 in standard mode

Table 4: Indicators of model fit

Index	RMSEA	CFI	AGFI	GFI	CMIN/DF	P	DF	CMIN
Standard value	<0.08	>0.9	>0.9	>0.9	Between 1-5	<0.05	9	36.122
The obtained value	0.071	0.993	0.949	0.983	4.014	0.001		

The Desirability indexes show that the research model has a good fit (Table 4).

Table 5: Factor loads in standard and non-standard mode and significant values of model relationships

Relationships			**Standard factor loading**	**Non-Standard Factor Loading**	**P**	**C.R.**
Direct Effects of Virus	→	education and research processes in sports	0.780	0.611	0.000	27.427

Table 5 shows that the outbreak of coronavirus affected on the education and research processes in sports.

Table 6: One-Sample t-test

	Test Value = 3.2					
	t	df	Sig. (2-tailed)	Mean Difference	mean	St. deviation
education and research processes in sports	33.833	599	.000	0.813	4.013	1.80

Further, one-sample t-test was used to investigate the role of COVID-19 virus on the education and research processes in sports (Table 6).

From the perspective of the respondents, the outbreak of coronavirus has played role on the education and research processes in sports.

DISCUSSION

One of the first sections to be closed due to the outbreak of the coronavirus and due to high susceptibility was the education and research section, which includes different sections in all age groups. As reported by the Australian Sports Association (2020) and Brett and Irfan (2019), the most important effects of the coronavirus epidemic on education and research section are as: the effect on vocational training in sport, the effect on academic sport activity, the effect on School sports, the effect on the activity of scientific conferences and seminars, the effect on

research and development plans and projects in sports, the effect on sports talent identification, the effect on the educational activities of coaches and referees, the effect on public and championship sports education, the effect on the activity of sports science associations that confirms the findings of the present study. The impact of the closure of sports venues on the education sector is well known, although many sports teachers and coaches in various disciplines have tried to keep preparation of their students and players by telecommunications and virtual challenges and home training programs, the negative effects are still visible. But in the field of research, these effects occur differently, in the meantime, the effect that the closure of places, research institutes, universities, events and stadiums on field research, and especially laboratory research in sports, has had on human specimens is quite clear. Another category of research that has continued to survive somewhat cleverly, and in some cases we even see the unprecedented growth of such research are content analysis research on virtual and online media, as well as the use of interviews and questionnaires in order to complete and collect data in field research. Another direct effect of the coronavirus epidemic on sport is its impact on the trade sector of the sports industry, which includes important effects. Export and import of sports products, due to the fear of infection of these products with the virus, not only in our country but also in many countries has faced serious problems. On the other hand, the strictness of governments in importing and exporting materials, and on the other hand, the exorbitant costs of maintenance, quarantine and disinfection of imported and exported goods have reduced the prosperity of this influential sector of the world sports economy. Another impact of this section is on sports marketing and through sports; As mentioned, the closure of leagues and the lack of live TV broadcasts on the one hand, and the creativity of some brands in creating advertisements related to coronavirus, on the other hand, have cause many positive and negative effects on this sector and change the face of sports advertising and marketing through sports. Another negative impact of the coronavirus epidemic has been on the transfer of players and coaches, especially in international markets. Aside from the slump in the transfer market over the past few months, clubs have decided that in addition to routine initial medical tests, specific tests are needed to screen incoming players before entering the country and

practice to ensure they do not catch the coronavirus. And even in some cases we see the quarantine of new players entering the teams before the tests. The effects of the coronavirus on sports startups, new business models, and stock market participation have also been positive. In the field of sports startups and new business models, we have witnessed the growth of new ways of generating income and the creation of new companies in the field of sports that have been shaped their place of recovery based on the principles of social distance, buying, selling and online marketing and using internet platforms.

Path intensity and factor analysis were then examined. The results showed that all paths to education and research processes are meaningful. In the variable of impact on sports, schools and vocational schools with a path coefficient of 0.9 had the highest intensity with educational processes. This result shows that school sports have undergone more general and serious changes, which is also logical, because despite the closure of schools, students' sports activities are not possible as before and they can't do sports activities. As expected, the variable of university sports activity) had the second intensity with a path coefficient of 0.88. As in the previous case, the effects of e-learning on practical activities have a double effect, and since in university classrooms, physical education units do not focus only on practical units, they have a lower path coefficient than school sports; but it still has a great impact on the process of education and research in sports. The third impact has been jointly on the activities of conferences and scientific seminars and educational activities of trainers and judges with a path coefficient of 0.85. Scientific seminars are generally a place for exchanging information between professors and students who could improve their scientific and practical experience by gathering in these scientific conferences, but despite the spread of the Corona virus and the virtualization of all scientific matters, these face-to-face exchanges have disappeared. It has had a great impact on sports science in recent years, especially the students who come to these conferences every year with the aim of gaining experience and interviewing the country's top professors. For this reason, it has a high path coefficient. The same logic and reasoning applies to the training activities of referees and coaches, because coaches and referees shared their experiences, expanded their knowledge and had many exchanges, but with these

conditions, the transfer Knowledge and experience are at a minimum, and coaching and refereeing training classes are either disrupted or not conducted effectively. The effect it has on the identification of sports talents with a path coefficient of 0.84 is also very high and is considered a priority. Because the talent identification process requires physical, skill, intelligence, and psychological testing; despite the prevalence of coronavirus, it has practically minimized the scrutiny of individuals' talents in principle, and it is perhaps conceivable that this coefficient could have been exceeded. Finally, the path of the two variables of impact on the job and professional training of employees and managers in sports and the impact on research and development programs and projects in sports with a standard path coefficient of 0.76 had the lowest effect among other variables. The reason seems somewhat logical, because the research processes of researchers in the Corona period in the field of sports were not created with many limitations that disrupt the research process, and researchers could continue their research despite the limitations. Give. Also, the activity of managers and employees was the same as before, and they were obliged to be present in the workplace in full compliance with health protocols and receive the necessary training.

CONCLUSIONS

In a general conclusion, it should be stated that the corona virus epidemic caused conflicts and disorders in all sectors of education and research, and on the other hand, these disorders led to the formation of a series of new procedures and creativity in the field of education, but with These conditions can be acknowledged that its effectiveness was far less than before, and although it tried to deal with it in the best way, but in some areas where the path coefficient was higher, it created serious limitations.

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