

Impact of Covid-19 Pandemic on Physical Activity and Sports in Goa

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Abstract

The purpose of the study was to assess the impact of Covid-19 on sportspersons in Goa, India. Data were collected from 314 participant sportspersons through google form using a self-made questionnaire. Descriptive statistics, percentage analysis, and chi-square were used to present the responses of participants (79% male and 21% female). The study results indicate that Covid-19 pandemic has negatively impacted the sporting career and severely restricted the daily routine of participants. Unable to participate in training sessions/competitions, lack of facilities and avenues for training, lack of support of coaches were the major problems faced by participants. With the uncertainty of returning to normal, lack of keeping oneself motivated and increase in frustration and depression were also other issues faced by the participants. Participants also reported of increasing financial crisis in pursuing their sporting career due to the impact of Covid-19 pandemic. Association was observed for sports category (contact sport and non-contact sport) with respect to responses of participants in terms of training sessions, training facilities and financial crisis expected due to the pandemic.

Introduction

The Covid-19 pandemic and the resultant quarantine, lockdown and social distancing brought a tremendous impact on physical activity, sports, and life routine of individuals. The restrictions during the pandemic had considerable effect on sportspersons since they could not train or compete and minor and major sporting events getting cancelled or delayed or ultimately getting cancelled. This has resulted in considerable modifications in lifestyle and routines of sportspersons and often have a negative impact the life spheres and mental health of sportspersons, decreasing their level of confidence and affecting their professional and

academic pursuits, and creating higher anxiety levels and social dysfunction (Pons et.al., 2020).

The global pandemic forcing athletes to stay in quarantine, leads to not only the physiological systems but also athletes' personal lives. (Scerri & Grech, 2021). Not knowing how prolonged the pandemic continues can cause inappropriate doubts, a lack of self-confidence, due to decreased sporting engagement and doubts with respect to sporting dreams and aspirations and career trajectories (Taku and Arai, 2020).

Absence of organized training and competition, lack of adequate communication between athletes and coaches, inability to move freely, and inappropriate training conditions are

negative consequences of social isolation or quarantine (Chen et al., 2020). Turbulent times as the pandemic can lead to high level of stress and negatively affect the sense of wellbeing (Weinberg and Cooper, 2012; and as the literature shows that pandemic can even lead to burnout of athletes (Scerri & Grech, 2021).

It is in this context that the present study was undertaken to find out the impact of Covid-19 pandemic on physical activity, lifestyle and sports in Goa, India.

Methods

Employing the survey method via google form, forwarded through e-mail and whatsapp groups, the study obtained responses from 314

respondents (248 males and 66 females), who were actively involved in physical activity and sports from Goa, India. The study sought information regarding the status of physical activity and sports involvement before and during the pandemic, lifestyle modifications during pandemic and the perceived impact of the pandemic on their sporting involvement. The data were analysed using descriptive statistics, percentages and chi square analysis.

Findings

Demographic characteristics for the cross-section of the participants who volunteered in the survey are shown in table 1.

Table 1
Demographic Characteristics and Cross-section of Participants

		Frequency	Percent
Gender	Male	248	79.0
	Female	66	21.0
	Total	314	100.0
Sector	Govt	64	20.4
	Public Sector	6	1.9
	Private Undertaking	48	15.3
	Self Employed/Business	25	8.0
	Student College/University	119	37.9
	Student HS/HSS/Primary	37	11.8
	Other	15	4.8
	Total	314	100.0
Type of Activity	Non-contact sports	108	34.4
	Contact sports	206	65.6
	Total	314	100
Where do you practise?	National coaching schemes	8	2.5
	State Coaching schemes	58	18.5
	Private academies	16	5.1
	Professional clubs	25	8
	Personal coaching under experts	21	6.7
	School/College/University	60	19.1
	Local clubs	102	32.4
	Total	314	100

Table 2
Frequencies and Percentages of Responses of Participants with Respect to Physical Exercise Before Covid-19 Lockdown and During Covid-19 Lockdown

		Frequency	Percent
Physical exercise before Covid-19 lockdown	Not answered	3	1.0
	Three sessions (6 hours per day)	7	2.2
	Two sessions (4-5 hours per day)	30	9.6
	Two sessions (2-3 hours per day)	36	11.5
	One session (2-3 hours per day)	104	33.1
	One session (up to 1 hour per day)	58	18.5
	Occasional	67	21.3
	Other	9	2.9
	Total	314	100.0
Physical exercise during Covid-19 lockdown	Not answered	3	10
	More than 4 hours	9	2.9
	2 to 4 hours	32	10.2
	1 to 2 hours	166	52.9
	Less than 1 hour	104	33.1
	Total	314	100

Table 1 exhibits the demographic variables and cross-section of the study. The participants included 79% male and 21% female. The respondents were from a wide range with 20.4% working in government sector, 15.3% working in private sector, 37.9% were students from colleges and university, 11.8% were students from higher secondary school, high school and primary school sectors. Regarding category of sports participation, 65.6 % of the participants were participating in contact sports/games, and 34.4% of them were involved in non-contact sports/games. With regard to where they practice, 32.4% were playing in local clubs, 19.1% were practising in their school/college/university, 18.5% of the participants were practising under state coaching schemes, 6.7% were practising under personal coaching experts, and only 2.5% were practising under national coaching

schemes. The respondents also included 42% who had participated in state/university level competitions, 18.8% who were national medal winners and 3.8% who were international medal winners.

Table 2 of the frequencies and percentages of duration of physical exercise and sports participation before and during Covid-19 pandemic shows considerable restriction and lesser duration of involvement in physical exercise and sports participation during Covid-19 pandemic. The participants responses showed that 47.5% have missed competition/tournament schedule due to the lockdown, and 55.1% of the participants mentioned that they felt that their sporting career would be affected due to the lockdown.

Table 3
Extent of Training Carried Out During Lock-Down

	Frequency	Percent
Not answered	5	1.6
Almost 100 %	10	3.2
Up to 80 %	26	8.3
50 to 70 %	63	20.1
40 to 60 %	108	34.4
Less than 30 %	93	29.6
Other	8	2.5
Total	314	100.0

Table 4**Type of Training Done During the Lockdown Period to Keep Fit and in Shape**

	Frequency	Percent
Physical raining	138	43.9
Yoga and relaxation	87	27.5
Skill and technical training	54	17.2
Mental training	33	10.4

Table 5**Training Modalities Done During the Lockdown Period**

	Frequency	Percent
Jogging/Running,	166	52.6
Core and stability	28	8.8
Aerobics and Zumba	22	6
Strength and Resistance bands	51	16.1
Yoga	46	14.5

Table 6**Availability of Training Facilities and Management of Training Schedule During the Lockdown Period**

		Frequency	Percent
Training facilities at home	Courtyard Terrace and space at home	214	67.9
	General weight training equipment at home	46	14.5
	Multi-gym	5	1.5
	Treadmill/ergometer	41	12.7
	No equipment	7	2.1
Source from where training schedule was obtained during the lockdown period	Coach/coaching academies	20	6.3
	Coaching on own	187	60.4
	Fitness trainer	74	24.3
	Not doing	27	8.6

Table 3 indicates that only 3.2% of participants were able to continue the same extent of training during lockdown as compared to what they were carrying out before the lockdown. Compromised training during lockdown was evident with 34.4% of the participants mentioning that they were able to carry out 40 to 60% of training during the lockdown compared to the normal training period; 29.6% mentioned that they were able to involve less than 30% of what they were doing during normal training period. Regarding the type of exercise and training during lockdown from table 4, it is evident that 43.9% were doing physical training; 27.5% of the participants were doing yoga and relaxation; 17.2% were doing skill training and technical training and 10.4% were doing mental training. Table 5 of responses frequencies and

percentages of participants with respect to the question “What are the training modalities you are able to do during the lockdown period?”. The results show that 52.6% of the participants had jogging/running as their training modalities during the lockdown, 16.1% did strengthening exercises and resistance bands as their training modalities, 14.5% did yoga, 8.8% participants did core and stability exercises and 6% of participants did aerobics and zumba as their training modalities. The study also asked whether the participants have training facilities nearby their homes during the lockdown to meet their training requirements, for which 53.4% of the participants mentioned having no training facilities nearby their homes

Table 6 represent the responses of participants of the training facilities they have in

their house and the source from where they are getting their training schedule during the lockdown period. The results have shown that 67.9% of the participants relied on courtyard terrace and space at home, 14.5% had general weight equipment, 12.7% had treadmill and ergometer. 60.3% of the participants were training on their own, 24.3% were able to access fitness trainer, 8.6% of the respondents mentioned that they were not doing anything. Seventy-one percentage of participants are of the opinion that they need to be equipped with

training facilities and essential infrastructure at home. 51.3% of the participants were regulating their diet during the lockdown period and 45.2% were not regulating any dietary changes during lockdown to compensate for shortage of training and exercise. Thirty percentage of participants opined that the lockdown would add financial crisis to meet their training and competitions post-lockdown. Regarding getting assistance and support for rehabilitation and training being an injured athlete, 22.3% of the participants mentioned difficulties regarding the same.

Table 7

With uncertainty prevailing over the lockdown period, and no certainty of how long it will continue, there is increasing mental toll (stress) in terms of keeping oneself motivated and fixing sporting career goals?"

	Frequency	Percent
Not answered	22	7.0
To Greater extent	34	10.8
To Certain extent	134	42.7
To Lesser extent	106	33.8
Other	18	5.7
Total	314	100.0

Table 7 shows the frequencies and percentages of participants with respect to the question "With uncertainty prevailing over the lockdown and no certainty of how long it will continue, are you facing a greater mental toll in terms of keeping motivated and fixing your sporting career

goals?". The results show that 42.7% of the participants expressed increasing stress to a certain extent in keeping oneself motivated and fixing career goals; 33.8% of the participants felt it to a lesser extent and 10.8% of the participants felt it to a greater extent.

Figure 1

Responses to the question "With uncertainty prevailing over the lockdown and no certainty of how long it will continue, are you facing greater mental toll (stress) in terms of keeping motivated and fixing sporting career goals?"

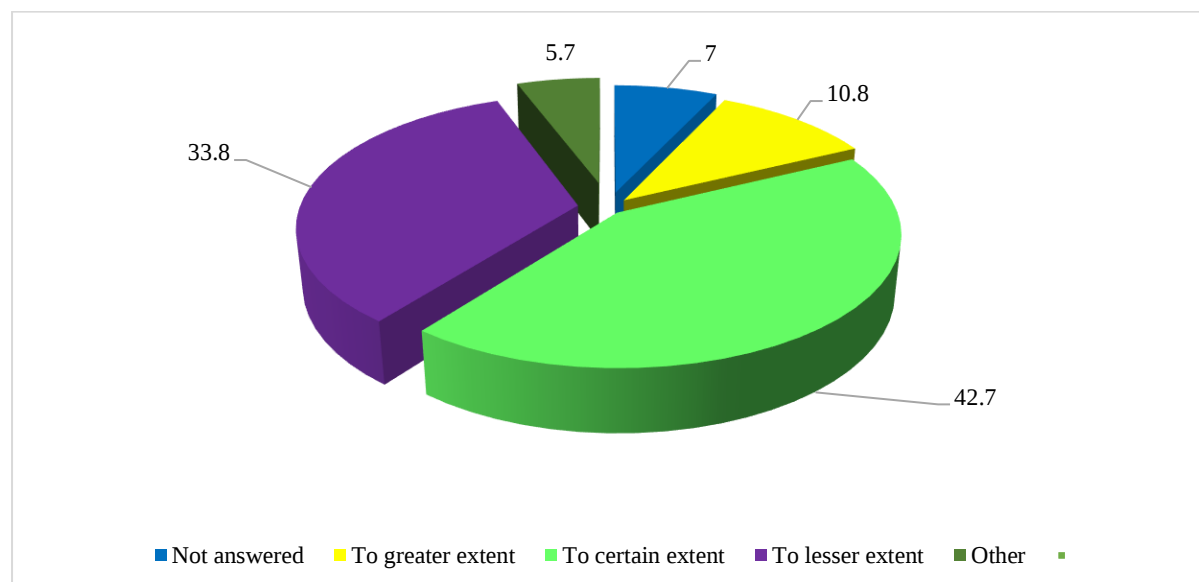


Table 8

Frequency and percentages of participants with respect to the question “Are you getting frustrated and depressed since you are not able to train and follow the daily routine you were following before the lockdown period?”

	Frequency	Percent
To greater extent	65	20.7
To certain extent	124	39.5
To lesser extent	51	16.2
Not at all	61	19.4
Other	13	4.1
Total	314	100.0

Table 8 shows the frequencies and the percentages of participants with respect to the question “Are you getting frustrated and depressed since you are not able to train and follow the daily routine you wear following before the lockdown?”. The results show that 20.7 % of the participants mentioned getting

frustrated and depressed to a greater extent while 39.5% mentioned it as to certain extent. Only 19.4% of the participants mentioned that they were not at all getting frustrated and depressed as they are not able to train and follow the daily routine they were doing before the lockdown period.

Figure 2

Percentage responses with respect to the question “Are you getting frustrated and depressed since you are not able to train and follow the daily routine you wear following before the lockdown?”.

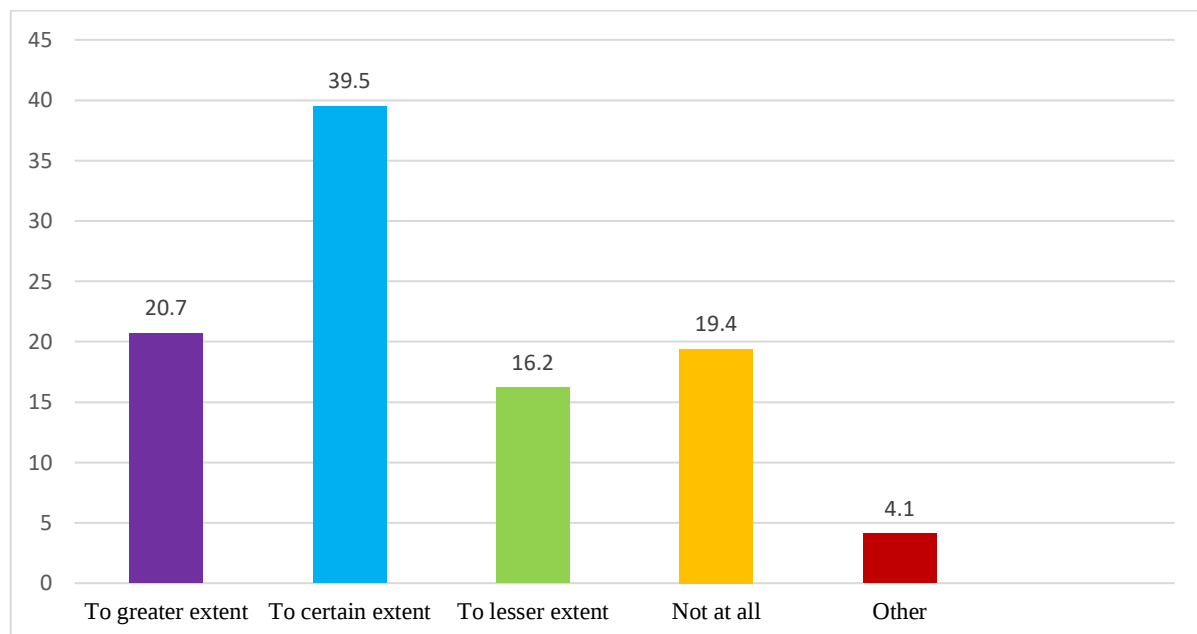


Table 9

Responses of participants with respect to the question “Has there been increased or decreased engagement in the following activities during the lockdown period as compared to the period before lockdown?”

	Increase	Decrease
Exercise/training		↓
TV/Entertainment	↑	
Social Media	↑	
Academic Pursuits		↓
Business Pursuits		↓
Online sources related to their game	↑	
Gardening	↑	
Household chores	↑	
Reading	↑	
Family time	↑	
Rest sleep	↑	
Other creative/innovative endeavours	↑	

Table 9 shows that exercise/training, academic pursuits and business pursuits had decreased during the lockdown period. TV/entertainment, social media, online sources related to their

game, gardening, household chores, reading, family time, rest/sleep and other innovative ideas have been increased during the period of lockdown.

Table 10

Frequencies and percentage responses of participants with respect to how much time they will require to get in shape and to the previous performance and whether the coronavirus outbreak and lockdown will negatively affect their sporting career and sports industry for quite some time in future

		Frequency	Percent
Time required to get in shape and to the previous performance	Not answered	13	4.1
	More than 3 months	36	11.5
	2 to 3 Months	75	23.9
	About a Month	97	30.9
	2 to 3 Weeks	84	26.8
	Other	9	2.9
Opinions about the coronavirus negatively affecting their career	Not answered	8	2.5
	To greater extent	106	33.8
	Moderate extent	61	19.4
	Certain extent	76	24.2
	Lesser extent	25	8
	Not at all	23	7.3
	No opinion	15	4.8
	Total	314	100

Table 10 shows the frequency and percentage of participants to the questions, the time required to get into shape to previous performance; and opinion whether coronavirus negatively affect their sporting career. Responses indicate that 30.9% of the participants mentioned requiring a month to get in shape and previous performance, 26.8% mentioned requiring 2 to 3 weeks, 23.9%

participants mentioned requiring 2 to 3 months to get back in shape. Regarding the extent that coronavirus will affect their career, 33.8% of participants mentioned that it will affect to a greater extent, 24.2% of the participants mentioned it as to a certain extent, 19.4% mentioned it as to a moderate extent.

Table 11

Chi-square analysis of participants for contact sports and non-contact sport for the question “Do you think that such loss and lack of preparation and training during lockdown will affect your sporting career at this juncture?”

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	8.928 ^a	3	.030
Likelihood Ratio	8.385	3	.039
Linear-by-Linear Association	.869	1	.351
N of Valid Cases	314		

a. 3 cells (37.5%) have expected count less than 5. The minimum expected count is 2.06.

Table 11 shows the chi-square value of participants with respect to sport category (contact versus non-contact) for the question “Do you think that such loss and lack of preparation and training during lockdown will affect your sporting career at this juncture?”, indicates significant chi-square value, $X^2 = 8.928$, $p < 0.05$. The results showed there is an association

between sport category (contact versus non-contact sports) for the question. 31.8% of the participants of non-contact sports say lockdown will affect their sporting career and in contact sports, 68.2% of the contact sports/games participants say lockdown will affect their sporting career.

Table 12

Chi-square analysis of participants for contact sports and non-contact sport for the question “Do you have an advanced training facility at your home/residence during the lockdown to meet your training requirements?”

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	9.501 ^a	4	.050
Likelihood Ratio	9.001	4	.061
Linear-by-Linear Association	.021	1	.886
N of Valid Cases	314		

a. 3 cells (30.0%) have expected count less than 5. The minimum expected count is 1.72.

Table 12 shows the chi-square value of participants with respect to sport category for the question “Do you have an advanced training facility at your home/residence during the lockdown to meet your training requirements?”, indicate significant value for Chi square $X = 9.501$, $p < 0.05$. The results show there is an

association with respect to sport category for the question. In non-contact sports, 32.5% of participants have a training facility at their homes, whereas in contact sports games, 67.5% of the participants do not have a training facility near their home.

Table 13

Chi-square analysis of participants for contact sports and non-contact sport for the question “Do you think that the lockdown will add to the financial crisis to meet your training and competition post-lockdown?”

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	17.090 ^a	5	.004
Likelihood Ratio	17.544	5	.004
N of Valid Cases	314		

Table 13 shows of the chi-square for the question “Do you think that the lockdown will add to the financial crisis to meet your training and competition post-lockdown?”, shows significant Chi-square value, $X^2 = 17.090$, $p < 0.05$. The results show there is an association between the sport category with respect to the question. In

non-contact sports, 21.1% of the participants mentioned that lockdown will add to their financial crisis to meet their training and competition, whereas in contact sports 78.9% of the participants mentioned that lockdown will add to their financial crisis.

Table 14

Chi-square analysis of participants for contact sports and non-contact sport for the question “Has there been an increase or decrease in the use of social media during the lockdown period as compared to the period before lockdown

	Value	Df	Asymptotic Significance (2-sided)
Pearson Chi-Square	9.153 ^a	2	.010
Likelihood Ratio	8.870	2	.012
Linear-by-Linear Association	.483	1	.487
N of Valid Cases	314		

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 11.01.

Table 14 shows the chi-square value of participants with respect to sport category for the question “Has there been an increase or decrease in the use of social media during the lockdown period as compared to the period before lockdown, indicates significant Chi square value,

$X^2 = 9.153$, $p < 0.05$ In non-contact sports, 29.8% of the participants have increased their usage of social media during the lockdown period, whereas in contact sports 70.2% of the participants have increased their usage of social media during the lockdown period.

Table 15

Chi-square analysis of participants for gender for the question “Have you missed any important tournament/competition schedule you were preparing because of the lockdown?”

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	7.971 ^a	3	.047
Likelihood Ratio	8.970	3	.030
Linear-by-Linear Association	3.392	1	.066
N of Valid Cases	314		

Table 15 shows the chi-square value of participants with respect to gender for the question “Have you missed any important tournament/competition schedule you were preparing because of the lockdown?”, indicates significant Chi-square value, $X^2 = 7.971$, $p <$

0.05. The results show that there is an association between gender with respect to the question. 84.6% of the participants in male have missed the important competition/tournament schedule, whereas in female only 15.2% have missed the competition.

Table 16

Chi-square of participants’ gender with respect to the question “Has there been an increase or decrease in engagement in the household chores during the lockdown period as compared to the period before lockdown?”

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	7.460 ^a	2	.024
Likelihood Ratio	8.016	2	.018
Linear-by-Linear Association	.103	1	.748
N of Valid Cases	314		

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 7.99.

Table 16 shows the chi-square value of participants with respect to for the question “Has there been an increase or decrease in engagement in the household chores during the lockdown period as compared to the period before lockdown?”, indicates significant Chi-square

value, $X^2 = 7.460$, $p < 0.05$. The results indicate that there is an association between gender with respect to the question. In case of male participants 60.9% have increased their household chores and in female participants, only 25.6% of participants have increase.

Discussion of findings

The study aimed to find out the impact of the Covid-19 pandemic on participants. In this study, a total of three hundred fourteen participants ($N = 314$) from various sports and games in Goa. The demographic category shows that 79% respondents were males and 21% respondents were females. Regarding different sectors, 20.4% of the participants were working in the government sector, and 37.9% were students from colleges and universities. Sport category being separated with respect to contact sport and non-contact sport, 65.6% of participants were playing or practicing non-contact sports and 34.4% are playing or practicing contact sports or games. Participants responded that there was considerable reduction in physical exercise/training duration and in terms of intensity of exercise involvement during the lockdown period. This may be because of an immediate lockdown procedure where all the facilities have been put to a halt making the

athletes stop their daily routine; and the lockdown might have made training facilities inaccessible to participants. Since sports specific training and match practice were not possible, most of the participants did physical exercises during the lockdown period to maintain their fitness and be in shape. Only 14.5% had general weight training equipment in their homes like dumbbells or kettlebells. 12.7% of the participants have treadmills or ergometers in their homes. Since coaching and expert staff were also not accessible, 60.4% of the participants planned their workouts by themselves, whereas only 24.3% of the participants had access to fitness trainers. In case of injured athletes who were in stage of rehabilitation, 22.3% of the participants were not able to access any assistance or support. Participants (30 %) thought that the lockdown will add financial crisis to their training and competitions post-lockdown. Participants mentioned being in stress

due to the lockdown and with uncertainty prevailing over the lockdown and no certainty of how long it will continue, 39.5% of the participants were frustrated because they were not able to follow their daily routine, and 20.7% are getting depressed to a greater extent because they are not able to follow their daily routine. The lockdown has forced all the people to stop what they were doing for a certain period. The survey results showed that participants had decrease in their exercise/training routine, academic pursuits as well as in business activities. However, there was increase in TV/Entertainment, usage of social media, increase in family time, gardening, household chores, reading, resting, and other creative ideas.

Participants also expressed having missed important competition opportunity due to lockdown and restriction of tournaments. They felt that the coronavirus impact has negatively affected their sporting career and will add to their financial crisis. This might be because athletes were uncertain of how much the lockdown period will prevail preventing them from the preparation for their games.

Conclusion

The study concluded that the coronavirus lockdown has put a downfall to the athlete's sporting career and their daily routines. Disabling them to go to their practice sessions, and not being able to access training facilities has kept athletes in stress and disturbed. Not only in their sporting career the lockdown has also lessened their academic pursuits and business pursuits. The athletes were not able to participate in competitions as the venue and the organization has ceased the competitions and tournaments bringing an end to the athletes to put up their performance. The lockdown has added a great financial crisis to all sporting careers.

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