

# Impact Of Motivation And Psychological Needs On Sports Commitment During Covid-19 Lockdown

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**Abstract:** The covid-19, often known as the Corona virus, has wreaked the biggest havoc on the global athletic calendar. All sports leagues and an event has been postponed due to covid-19. This thesis is struggle to find out how covid-19 affected the routines of game practice of young athletes and also what strategies that are using to maintain their physical fitness. The study's aims are to investigate the relationship among Behavioral Regulation in Sport (BRS), Psychological Need Satisfaction in Exercise Scale (PNSES) and Sport Commitment (SC) and also their sub-constructs and the impact of BRS and PNSES on SC during Covid-19 lockdown. For this purpose, 200 university level athletes complete all three questionnaires. The information was gathered from four universities. The University of Lahore, University of Central Punjab, Comsats University of Islamabad (Lahore Campus) and Punjab University of Lahore. In this investigation, an analytical and cross-sectional study approach was adopted. Results disclosed that the BRS has no correlation ( $r = 0.145$ ) with SC and non-significant value ( $p=0.407$ ) and PNSES has very low correlation ( $r = 0.251$ ) with SC and significant value ( $p < 0.001$ ). Also, BRS, PNSES has 16.6% impact on SC. According to results BRS and PNSES having low relationship and impact on SC due to Covid-19. Covid-19 also decreased the chances to improve the player's performance. The study suggested that players at university level can improve their physical activity by adopting precautionary measures against Covid-19.

**Keywords:** BRS, PNSES, SC, Covid-19, Impact.

## INTRODUCTION

Due to the global pandemic declared by the World Health Organization caused by the Covid-19 virus, many changes have taken place affecting work, personal, and psychological factors, and as a result, the way people live. In Spain, on March 14, 2020, a state of alarm was decreed, which meant a period of confinement at home. In general terms (depending on the Autonomous Community), this confinement has lasted approximately 3 months. This has meant changing the daily routine, overnight, both in the way of working, which in most cases has shifted to teleworking, and in how we live our daily lives, influencing healthy lifestyles such as eating, drug consumption, rest habits and, particularly, the practice of physical activity.

A person's perception of self-efficacy refers to the perceived ability to overcome their fears, trust their possibilities, and face adverse situations in a positive and decisive way, decisively influencing how they think, feel, and act while the commitment to sports practice (current and future commitment) represents the desire, the need, and the A high perception of self-efficacy is important during situations of confinement and even currently, with progressive de-escalation, in relation to the continuity or not of sports practice, since, although several studies have demonstrated that the perception of self-efficacy is not a predictor of the practice of physical activity, it is an important factor. In addition to the perception of self-efficacy, it is important to be committed to the sports practice, since the commitment that the person acquires, provided that it is by their own will, will lead them to maintain practice for a longer period of time.

Recent studies of Covid-19 and its influence on the practice of physical activity determined that many social agents (official agencies, fitness centers, personal trainers, etc.) have implemented mechanisms to facilitate the practice of physical activity from home, through written guidelines and/or online videos, for example, the recommendations of the American College of Sports Medicine. However, many people have also decreased or altogether ceased their physical activity during confinement due to a number of factors such as type of housing, means, and lack of motivation. Thus, it is necessary to understand how these psychological variables have been affected in people who practice physical activity during confinement caused by Covid-19, and how these variables are related, in order to be able to establish strategies aimed at continuity of practice. The many benefits of regular physical activity for adults are well known. The World Health Organization recommends at least 150 min of moderate activity or 70 min of Leyton-Román et al. Sports Commitment during Lockdown *Frontiers in Psychology*, vigorous activity per week for this practice to provide health benefits. Some of the most important benefits at the physical level are the improvement of body composition, image, metabolic level, and cardio respiratory capacity, helping to prevent diseases such as morbidity, sarcopenia, hypertension, and even cancer among others. It also produces a positive psychological effect by reducing the rate of illness due to anxiety and depression (Chan et al., 2019). The confinement produced by Covid-19 has had a major negative psychological impact on most people (Cheval et al., 2020). This impact has also affected people who were physically active before the confinement and have reduced their possibilities of carrying out their usual sports practice, sometimes adapting such practice at home, and in the worst case, abandoning the practice until the de-escalation began (Ammar et al., 2020; with the consequent damage to the individual's immune system. Motivation toward sports practice is a fundamental

factor for continuity and adherence (Batista et al., 2020). One of the theories that help explain motivational processes is the self-determination theory (SDT) (Deci and Ryan, 1980, 1985, 1991, 2012; Ryan and Deci, 2020). The SDT determines that motivation lies within a continuum in which three levels are distinguished autonomous motivation, which includes, from most to least: self-determined intrinsic motivation, integrated regulation, and identified regulation (performing an activity for one's own pleasure that involves practicing it); controlled motivation, which includes interjected and external regulation (these are determined by external rewards or recognition), and a motivation (Deci and Ryan, 2000). Deci and Ryan (2000) establish that this theory is based on the fact that human behavior is motivated by three basic psychological needs, which are autonomy, reflecting the desire to have the ability to choose activities, and the origin of the behavior itself (Deci, 1975; Deci and Ryan, 1985); competence, which implies a desire to produce desired results in practice (Deci, 1975; Deci and Ryan, 1985); and relationship with others, which refers to the effort to relate to and care for others, as well as to feel that others have a good relationship with you (Ryan and Deci, 2000; Deci and Ryan, 2002). The more these BPNs are satisfied, the more self-determined the person will be toward physical activity. In addition, this self-determined motivation can also trigger other positive psychological aspects, such as higher levels of self-efficacy (Duchatelet and Donche, 2019) and increased commitment to sports practice.

Recent studies of Covid-19 and its influence on the practice of physical activity (Hall et al., 2020;) have determined that many social agents (official agencies, fitness centers, personal trainers, etc.) have implemented mechanisms to facilitate the practice of physical activity from home, through written guidelines and/or online videos, for example, the recommendations of the American College of Sports Medicine (2020). However, many people have also decreased or altogether ceased their physical activity during confinement due to a number of factors such as type of housing, means, and lack of motivation. Thus, it is necessary to understand how these psychological variables have been affected in people who practice physical activity during confinement caused by Covid-19, and how these variables are related, in order to be able to establish strategies aimed at continuity of practice. Motivation is a key concept for the achievement of these two psychological aspects that are essential for the continuity of practice ( Duchatelet and Donche, 2019); however, how can motivation be maintained during a situation of confinement. Some latest studies in the field of physical educations have been reported in (Aamina et al., 2020; Aqsa et al., 2020; Aqsa et al., 2021; Farwa et al., 2021; Hira et al., 2021; Iqbal et al., 2019; Rabia et al., 2021; Saadia et al., 2021; Salma et al., 2020; Sana et al., 2021; Threem et al., 2020).

The main objectives of this study are 1) to determine the relationship among BRS, PNSES and SC and also their sub-constructs, also, 2) to determine the impact of BRS, PNSES on SC.

## **RESEARCH METHODOLOGY**

The cross-sectional and analytical study design has been used in this study. The university male and female athletes of Government Universities in Lahore city were the population. The following four universities were considered Punjab University (PU), Comsats University Islamabad (Lahore Campus), University of Lahore (UOL) and University of Central Punjab (UCP). There had been

comprised of 36 items of BRS, rated on a 5-point Likert scale; 18 items of PNSES, rated on a 5-point Likert scale and 28 items of SC, rated on a 5-point Likert scale have been used. The simple random sampling technique had been used in this study. To select sample size, following formula of Yamane was used as:  $n = \frac{N}{1+Ne^2} = 200$ . The collected data based on the different variables. Demographic information has been taken from the participants by given questionnaires.

## RESULTS

Data analysis and the interpretation of results based on the study objectives have been described. This study is consisting of three scales one is BRS, second is PNSES and third is SC. The information of age, gender, locality, universities and experience which were collected from the sampled players. The main purpose of the study aimed to find out the relationship and impact of BRS, PNSES on SC. The data accordingly collected from the players of different universities of Lahore.

**Table 1**  
Reliability of the Scales (n=200)

Scale	No. of Items	Cronbach's Alpha
Behavioral Regulation in Sport (BRS)	36	0.882
Psychological Need Satisfaction in Exercise Scale (PNSES)	18	0.782
Sports Commitment (SC)	28	0.810
<b>Over all</b>	<b>82</b>	<b>0.868</b>

Table 1 shows that the reliability of all scales of current study, the overall reliability of all the scales is 0.868 which is in excellent range.

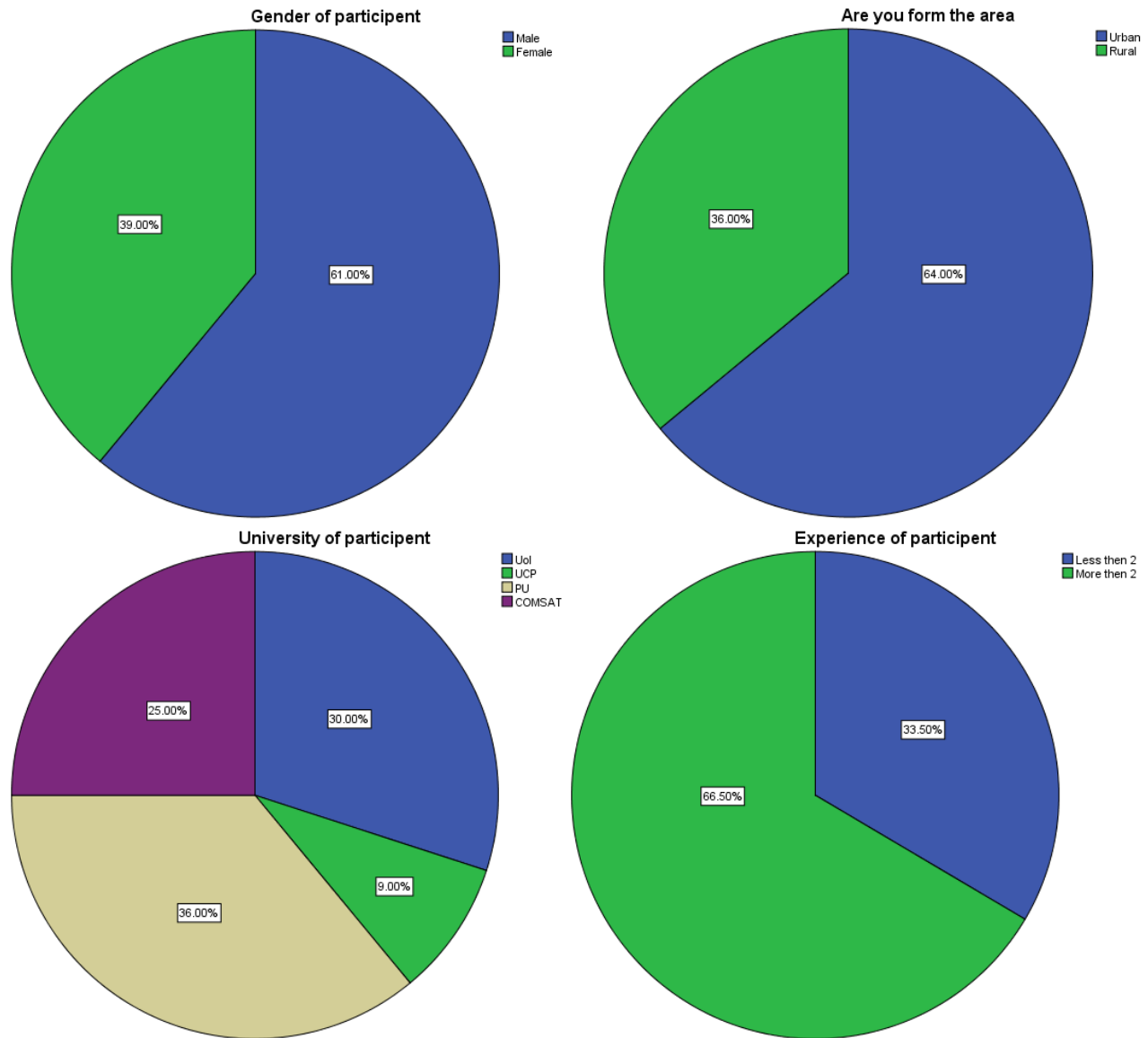
**Table 2**  
Normality of the Scales (n=200)

Scales	Shapiro-Wilk		
	Statistic	df	Sig.
Behavioral Regulation in Sport Questionnaire (BRSQ)	0.970	200	0.090
Psychological Need Satisfaction in Exercise Scale (PNSE)	0.976	200	0.072
Sports Commitment model questionnaires (SCMQ)	0.994	200	0.620

Table 2 shows that the Normality test values which was used for analyzing the normality of scales. All the values are greater than 0.05 which shows that the data is normal.

### Figure 1

Demographic variables of current study



The above figure shows the demographic variables of current study, top left pie chart shows that 122 (61.0) % participants were Male and 78 (39.0) % participants were Female, top right pie chart shows 128 (64.0) % participants were from Urban and 72 (36.0) % participants were from Rural, bottom left pie chart shows that the status information of the respondents, 60(30.0) % participants were from the UOL, 18(9.0) % participants were the UCP, 72(36.0) % participants were the PU and 50(25.0) % participants were the Comsat and bottom right pie chart shows that Experience of participants, 67 (33.5) % participants were and 133 (66.5) % participants.

**Table 3** Correlation among BRS, PNSES and SC scales (n=200)

Sub-Constructs	1	2	3
1 Behavioral Regulation in Sport (BRS)	1	0.39**	0.145**

p-value	0.000	0.407
2 Psychological Need Satisfaction in Exercise Scale (PNSES)	1	0.251
p-value		0.000
3 mean The Sport Commitment (SC)		1

\*\* Correlation is significant at the 0.01 level (2-tailed), \* Correlation is significant at the 0.05 level (2-tailed).

The Correlation coefficient of these study variables are listed in table 3 and showed that the Behavioral Regulation in Sports is positively correlated ( $r=0.39$ ) with Psychological Need Satisfaction in Exercise Scale with significant value ( $p<0.001$ ).

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**Table: 4** Model Summary of BRS, PNSES and SC scales (n=200)

Model	R	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.256 <sup>a</sup>	.166	.47079	1.511

a. Predictors: (Constant), meanPNSES, meanBRS, b. Dependent Variable: meanSC

In the column labeled R are the values of the multiple correlation coefficients between the predictors and the outcome which is 0.256.

The next column gives us a value of  $R^2$ , which is a measure of how much of the variability in the outcome is accounted for by the predictors. For the model its value is 0.166, which means that Behavioral Regulation, Psychological Need for 16.6% of the variation in Sport Commitment.

The adjusted  $R^2$  gives us some idea of how well our model generalizes and ideally, we would like its value to be the same, or very close to, the value of  $R^2$ . In this example the difference for the final model is small.

Finally, the Durbin–Watson statistic it will be found in the last column of the table. This statistic informs us about whether the assumption of independent errors is acceptable. As a conservative rule, suggested that values less than 1.5 or greater than 2.5 should definitely raise alarm bells. The data value is 1.511, which is in the range of 1.5-2.5 that the assumption has almost certainly been met.

**Table: 5** Analysis of Variance of BRS, PNSES and SC scales (n=200)

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	3.066	2	1.533	6.916	.001 <sup>b</sup>
	Residual	43.664	197	.222		
	Total	46.729	199			

a. Dependent Variable: meanSC, b. Predictors: (Constant), meanPNSES, meanBRS

The next part of the output, which contains an ANOVA that tests whether the model is significantly better at predicting the outcome than using the mean as a ‘best guess’. Specifically, the F-ratio represents the ratio of the improvement in prediction that results from fitting the model, relative to the inaccuracy that still exists in the model. The model has four coefficients (one for each of the three predictors and one for the constant, and has 199 degrees of freedom. The average sum of squares is then calculated for each term by dividing the square sum by the df and F-ratio is 6.916, we can interpret these results as meaning that the model predicts the outcome variable.

**Table 6** Coefficients of the BRS, PNSES and SC scales (n=200)

Model		Unstandardized		Standardized		Collinearity	
		B	Std. Error	Beta	t	Sig.	Statistics
						Tolerance	VIF
1	(Constant)	2.628	.325		8.094	.000	
	meanBRS	.062	.083	.056	.748	.455	.848
	meanPNSES	.214	.070	.229	3.062	.003	.848

a. Dependent Variable: meanSC

So far, we have looked at several summary statistics telling us whether or not the model has improved our ability to predict the outcome variable. The next part of the output is concerned with the parameters of the model. The format of the table of coefficients will depend on the options selected. The confidence interval for the b-values, collinearity diagnostics and the part and partial correlations will be present only if selected in the dialog box.

Remember that in multiple regressions the model takes the form of equation (4.1) and in that equation there are several unknown quantities (the b-values). The first part of the table gives us estimates for these b-values and these values indicate the individual contribution of each predictor to the model. If we replace the b-values in equation we find that we can define the model as follows:  
 $Sport\ Commitment_i = (b_0 + b_1 Behavioral\ Regulation_i + b_2 Psychological\ Needs_i)$

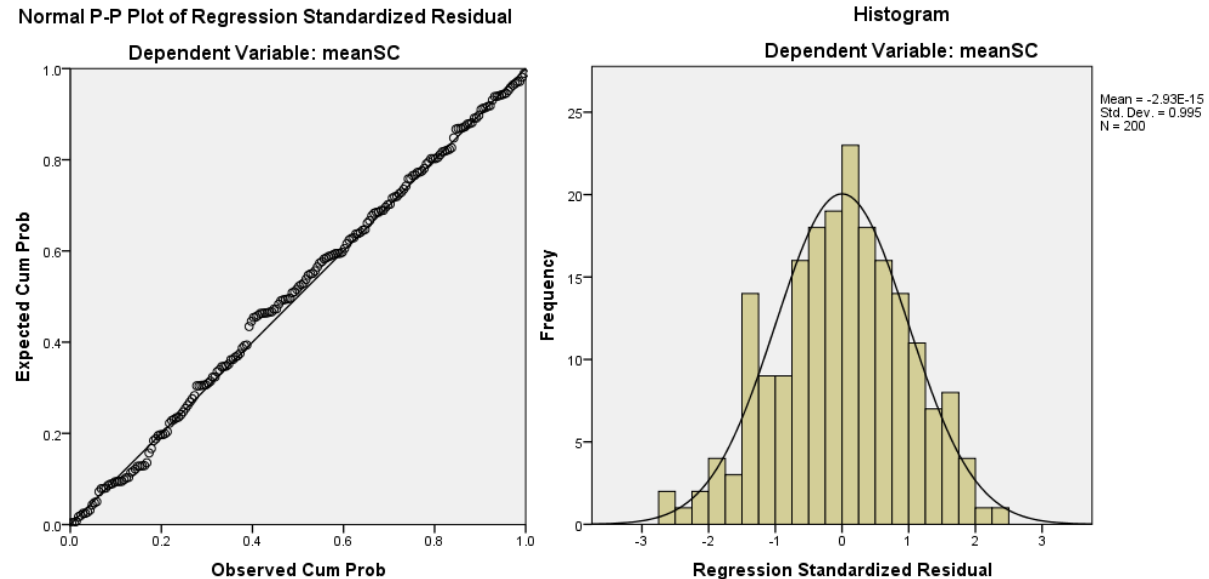
$$Sport\ Commitment_i = (2.628 + 0.062 Behavioral\ Regulation_i + 0.214 Psychological\ Needs_i)$$

The b-values tell us about the relationship between Sport Commitment and each predictor. If the value is positive, we can tell that there is a positive relationship between the predictor and the outcome, whereas a negative coefficient represents a negative relationship. For these data all three predictors have positive b-values indicating positive relationships.

Each of these beta values has an associated standard error indicating to what extent these values would vary across different samples, and these standard errors are used to determine whether or not the b-value differs significantly from zero. In multiple regression, it is easiest to conceptualize the t-tests as measures of whether the predictor is making a significant contribution to the model. Therefore, if the t-test associated with a b-value is significant then the predictor is making a

significant contribution to the model. The smaller the value of Sig. the greater the contribution of that predictor.

**Figure 2** Regression standardized residual and histogram of current study



Left side of figure 2 the plot of standardized residuals against standardized predicted values. Figure shows the graph for the data in our Sport Commitment. Note how the points are randomly and evenly dispersed throughout the plot. This pattern is indicative of a situation in which the assumptions of linearity and homoscedasticity have been met. Right side of figure 2 shows the histogram and normal probability plot of the data for the current example. The histogram should look like a normal distribution (a bell-shaped curve). SPSS draws a curve on the histogram to show the shape of the distribution.

## DISSCUSION

Given the need of maintaining an active lifestyle while incarcerated, it's essential. Comprehend some of psychological factors to consider that drive several strategies were utilized to improve the subjects' quality of life. Now we'll discuss the facts we uncovered in connection to the objectives we established previously.

In terms of the first goal, the study participants had strong levels of self-motivation toward sports involvement, which is understandable given that the sample was comprised of people who exercised regularly. People who are more organically motivated to practice are more likely to succeed, according to studies by Belando (2012).

People who participate in physical activity are more inclined to do so in the future. This is because the vast majority of people expressed high levels of satisfaction with their BPNs, with competence BPNs ranking slightly higher. According to Ryan and Deci (2020), contentment with the three BPNs is required to achieve high levels of self-determined motivation These two variables



(Duchatelet and Donche, 2019) show that people who exercised before being confined had high levels of autonomous motivation, self-efficacy, and current commitment to physical activity. As a result, the majority of people continued to exercise during their detention these two variables (Duchatelet and Donche, 2019). This demonstrates that people who exercised before to being confined had high levels of self-motivation, self-efficacy, and current commitment to physical activity. As a result, the vast majority of individuals incarcerated continued to engage in physical activity.

All around the world, COVID-19 has caused the closure if gyms, Stadium, pool and fitness studio, Physiotherapy clinics, parks and playgrounds. As a result, many people are unable to participate in their preferred sports or physical activities outside of their houses, whether alone or in groups. As a result of these situations, many people become less physically active, spending more time on screens, having inconsistent sleep habits, and eating poor diets, resulting in weight gain and a loss of physical fitness. The study's goal is to evaluate how covid-19 influences university athletes' physical activity. Covid-19 has a negative influence on athlete and sports performance. The key points of the study are listed below:

## **CONCLUSION**

The study's aims are to investigate the relationship among Behavioral Regulation in Sport (BRS), Psychological Need Satisfaction in Exercise Scale (PNSES) and Sport Commitment (SC) and also their sub-constructs and the impact of BRS and PNSES on SC during Covid-19 lockdown. For this purpose, 200 university level athletes complete all three questionnaires. The information was gathered from four universities. The University of Lahore, University of Central Punjab, Comsats University of Islamabad (Lahore Campus) and Punjab University of Lahore. In this investigation, an analytical and cross-sectional study approach was adopted. Results disclosed that the BRS has no correlation ( $r=0.145$ ) with SC and non-significant value ( $p=0.407$ ) and PNSES has very low correlation ( $r=0.251$ ) with SC and significant value ( $p<0.001$ ). Also, BRS, PNSES has 16.6% impact on SC. According to results BRS and PNSES having low relationship and impact on SC due to Covid-19. Covid-19 also decreased the chances to improve the player's performance. The study suggested that players at university level can improve their physical activity by adopting precautionary measures against Covid-19.

**Recommendations:** The goal of the study is to help Researchers, students and sport departments enhance player performance by using preventative measures. The study suggested that players at university level can improve their physical activity by adopting precautionary measures against Covid-19. The results show that the effects of covid-19 on physical activity have important impact on players performance, therefore this is time to think about the Implementations and gain some benefits of it. The study will also be helpful for students and players to adopting precautionary measures against covid-19. Additional research might be conducted throughout Punjab.

**Limitations:** The research study is analytical cross sectional and is the results response of the University Level players in Lahore. The students are restricted to provide correct response according their level of understanding. This study is limited to UOL, UCP, PU & CUI players.

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