**Impact of Covid-19 Pandemic on Psychological aspects and Quality of Life among Basketball Players**

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ABSTRACT

Since the Covid 19 outbreak sports persons have had a difficult time physically as well as psychologically due to restrictions in outdoor activities. Due to lack of opportunities to practice regularly, basketball players have had a difficult time mentally. There are a lot of studies about psychological effects and quality of life of basketball players separately but there is lack of literature evidence to study the impact of Covid 19 on quality of life and psychological effect among basketball players. The aim of this study was to analyze the impact of Covid 19 on psychological aspects and quality of life among basketball players. The study was carried out among 100 basketball players aged between 18 to 30 years through an online survey using the DASS 21 scale and WHOQOL Brief scale. Results distinctly depicted that a large number of basketball players suffered from depression, anxiety and stress. The results also indicated a significant effect on quality of life in the physical, psychological, social, and environmental domains.

***Keywords****:* Basketball Players, Covid-19, Psychological aspects, Quality of Life

# INTRODUCTION

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 In December of 2019, there was an outbreak of a severe acute respiratory syndrome caused by the Coronavirus 2 (SARS-CoV-2 or COVID-19) in Wuhan, Hubei Province, China. It was declared a public health emergency by the World Health Organization (WHO) on January 30th, 2020. The Government of India called for a nationwide lockdown from March 25th, 2020. Citizens were mandated to stay at home, and all major offices, malls, factories, schools and universities were shut down. To stop the spread of the disease, measures of conﬁnement taken by most governments have interrupted the daily lives of the people, impeding athletes of training in a suitable environment, which can lead to negative consequences at emotional, cognitive, and behavioral levels. Sport activities of any kind were abruptly stopped and players, coaches and other personnel were obliged to home conﬁnement together with general population1.For most athletes, this sudden interruption in their training schedule will lead them to set new goals during the season when it resumes. For athletes at the end of their competitive stage, it can mean putting an early and abrupt closure to their careers, which can increase unpleasant emotions during conﬁnement2. It has led many athletes to adapt their sports training without the tools or suitable spaces to develop their training routines properly. This fact has led us to research how this unusual situation aﬀects athletes and how they are experiencing it since all local, national, and international competitions have been cancelled or postponed.

 The Sport of Basketball is the game of high level agility or coordinative ability, speed which is not found in every person but as it is required for the game so these abilities or fitness components can be developed through basketball game. A person can be a very good basketball player by practicing for one or two years even No matter how skilful or fit a basketball player might be physically, this will count for nothing if the player is not psychologically skilled .The concentration, confidence and goal setting are important variable. Concentration, attention and focus interchangeably used. Where the confidence affects their performance through their thoughts, behaviour, and feelings. Performance and confidence were statistically significant and positively correlated. The world of sport recognizes the importance that confidence has on success Athletes are constantly evaluated on the level of confidence they have in their abilities to perform. As far as the goal setting is concerned it is an important part of any athlete’s training plan, whether their goal is to improve their physical skills, mental skills, or just get more enjoyment out of their sport3. Playing basketball helps to improve motor coordination, flexibility, and endurance. It also encourages speed, agility, and strength. These skills are shown to have a positive effect on promoting a healthy body weight and encouraging more physical activity, which can enhance cardiorespiratory fitness and self-esteem. Agility is a pre requisite for successful basketball performance and is affected by speed, strength, coordination, balance, and ﬂexibility. Again, it is important to practice agility drills on the basketball court as part of the integrated training with basketball applied drills and small-side games. Basketball also requires a high degree of ﬂexibility. Sufﬁcient stretching sessions reduce muscle-related injuries, increase the joints’ range of motion, and minimize the possibility of subsequent athletic performance impairments. Therefore, dynamic stretching exercises before games are recommended, and basketball-speciﬁc actions that involve the major muscle groups should be included in the daily training routine. Static stretching performed separately will improve joints’ ranges of motion and ﬂexibility. Moreover, structured warm-up and basketball-circuit-related drills will further facilitate the player’s gradual return to training sessions. During the COVID-19 period, restriction measures and physical distancing undoubtedly have made quality basketball training quite difﬁcult to achieve. This drawback will potentially affect not only the players’ game performance in the near future, but also their post-game recovery, especially if too many games are scheduled within a short period in order to ﬁnish the season in time4. Under these unprecedented conditions, the players’ biological workload will be burdened in proportion to the time available for compensating for the lost aerobic capacity. It was obvious that basketball players will face detraining, a phenomenon deﬁned as decrement in physical performance due to cessation of training activities5.

 Furthermore, the challenges of players during the COVID-19 are not limited only to their physical ﬁtness and technical skills recovery. Team players have to deal with many psychological problems, such as lack of communication with teammates, feelings of isolation, high levels of perceived stress, and maladaptive psycho biosocial states. Given that lockdown has wide-ranging, substantial, and potentially acute and long-term psychological effects (e.g., depression, anxiety, adverse behaviors, smoking, alcohol use, eating and sleep disorders) , identifying and controlling these consequences should be also a priority for players and coaches, which should motivate the players to seek professional assistance and social support when it is needed . As mental health and mental preparation of basketball players should not been ignored, players may beneﬁt from psychological interventions provided by sport psychologists on cognitive–emotional regulation strategies, and develop psychological skills like stress management, attentional focus, communication, goal setting, mental practice, self-talk, and conﬁdence in order to contribute to team performance efﬁciency and effectiveness 4.

Athletic psychology is a type of psychology that, both in realistic and competitive circumstances, is intimately related to human actions in the field of play. Psychology is one of the biggest determinants of winning and losing at the elite level6. During the past two decade sports psychology has emerged as a legitimate field of scientific enquiry and studies has been conducted extensively on why the individual level of performance is increasing day by day7. It was felt that psychological factor is one important aspect which helps the player perform better under pressure situations. A great example of an athlete with good psychology is Roger Federer, who is known for his calm nature on the tennis court, regardless of the situation. While many people may not think it has that much of an impact, it’s been proven that psychology plays a central role in athletic performance. Studies show that psychological factors can affect performance in either a positive or negative way, depending on the situation itself6. It is in our particular interest to study the psychological eﬀects, both negative and positive, that this situation can have on them. The factors that have been considered to influence the success of an athlete are physical, technical, tactical and psychological skills. As a result, psychological skills are considered important to be included into the training program for achieving the success among the athletes. It is well-known that sport enhances physical and psychological skills. In fact, young athletes, during their sport practice, gradually learn to cope with their emotions, such as anxiety, stress, and anger. In addition, they implement performance subcomponents such as motivation, perceived control, enjoyment, satisfaction. Diﬀerent levels of psychological distress is associated with gender, age education, occupation, and localization. Sport often represents a life goal for elite athletes. For them, training interruption could represent a greater psychological pressure, than for amateurs or young athletes, because of the fear of the disruption to their athletic careers and eventually loss of revenue or sponsorship. Moreover, athletes in this period may experience progressive loss of sport-speciﬁc physical ﬁtness, which will result in injury risks when they return to training1,8. Physical activity and social connection are important determinants of mental health. As such, the effect of COVID-19 may be more difﬁcult for team sport athletes9,10.

 Quality of life is defined as a multi-dimensional concept consisting of physical, psychological and social phenomenon, integrating individual’s perception of their position in life in the context of the culture and value system in which they live, in relation to their goals, exceptions, standards and concerns. An individual’s health depends a lot on their lifestyle. The more time spent on hygiene, physical fitness, and diet regulation, the healthier lifestyle they have. Regular physical activity helps to keep the key mental skills sharp as age. This includes critical thinking, learning and using good judgment. It is associated with higher levels of health – related quality of life and treatment based on promoting exercise have also been shown to be effective in reducing stress, anxiety and depression11.

# RATIONALE

The COVID-19 outbreak has affected the sports ﬁeld unprecedentedly. As I had keen interest in basketball so I had chosen this population for my study. The motive of this study was to see the psychological effect and quality of life among basketball players. There are a lot of study about psychological effect and quality of life of basketball player separately but there is a lack of literature evidence to study the impact of covid- 19 on quality of life and psychological effect among basketball player. A need of research was felt to study the interference of one on another. We will also be able to analyse through this study whether the basketball player showed any deterioration on physical quality of life and psychological quality of life.

**III. AIMS AND OBJECTIVES**

The aim was to study the impact on Covid – 19 on psychological effect and quality of life among basketball player.

The objective are:-

* To analyze the impact of covid-19 on psychological level among basketball player.
* To analyze the quality of life of basketball player due to Covid – 19.

**IV. METHODOLOGY**

1. **Study Design**

Survey

1. **Subjects**

A sample size of 100 Basketball players from community by convenience sampling.

1. **Inclusion criteria**
* Age between 18-30 years of age
* Males and females both.
* Must be a basketball player.
1. **Exclusion criteria**
* Non basketball player
* Participants with evidence of associated physical, mental, or neurological disorder.
* Participants with any evidence of cognitive impairment.
* Participants not covered in the age range.
* Participants with any musculoskeletal deficit.
1. **Procedure**

The study performed was an online survey based study, 100 basketball players population of aged 18-30 years participated in the study .After explaining the need and purpose of study the participants were asked to fill an online form consisting of the questionnaire after seeking their due consent .Online survey was conducted and was sent to subject through whatssapp groups and other online platform. The language chosen was English and the participants were explained the entire question in order to avoid any incorrect answers. Psychological effect was assessed using DASS-21 scale and Quality of life was assessed using WHOQOL-BREF. The subjects were given clear instruction regarding the scale used in an understandable language. Participants were identified according to inclusion and exclusion criteria. Data was compiled and analyzed.

1. **Outcome Measures / Scales**
* **Depression , Anxiety and Stress Scale – 21 item (DASS-21):**

The Depression, Anxiety and Stress Scale - 21 Items (DASS-21) is a set of three self-report scales designed to measure the emotional states of depression, anxiety and stress. Each of the three DASS-21 scales contains 7 items, divided into subscales with similar content. The depression scale assesses dysphoria, hopelessness, devaluation of life, self-deprecation, lack of interest / involvement, anhedonia and inertia. The anxiety scale assesses autonomic arousal, skeletal muscle effects, situational anxiety, and subjective experience of anxious affect. The stress scale is sensitive to levels of chronic nonspecific arousal. It assesses difficulty relaxing, nervous arousal, and being easily upset / agitated, irritable / over-reactive and impatient. Scores for depression, anxiety and stress are calculated by summing the scores for the relevant items. The DASS-21 is based on a dimensional rather than a categorical conception of psychological disorder. The assumption on which the DASS-21 development was based (and which was confirmed by the research data) is that the differences between the depression, anxiety and the stress experienced by normal subjects and clinical populations are essentially differences of degree. The DASS-21 therefore has no direct implications for the allocation of patients to discrete diagnostic categories postulated in classificatory systems such as the DSM and ICD.

* **World Health Organization Quality Of Life (WHOQOL-BREF)**

This scale was World health Organization Quality of Life – BREF (WHOQOL-BREF) is a self-report questionnaire, which assesses four domains of quality of life (QOL): physical health, psychological health, social relationships, and environment. In addition, there are 2 items that measure overall QOL and general health. The assessment conceptually fits with the WHO definition of QOL. WHOQOL-BREF can provide data for both research and clinical purposes. Although it is a relatively brief instrument, its structure allows one to acquire specific information covering many aspects of life. The WHOQOL (BREF) is short and easy to administer.The WHOQOL (Bref) is grouped into 4 domains of QOL and 2 items that measure overall QOL and general health:

1. Physical health

2. Psychological health

3. Social relationships

4. Environment

1. **V. RESULT**

The results of the study were found to distinctly depict the effect of COVID-19 on various psychological aspects and quality of life.

Using DASS-21 scale, 51% participants from the sample population were found to have their depression above the normal range (normal range= 0-9). [ 15% mild, 16% moderate, 12% severe, 8% extremely severe]. 72% participants from the sample population were found to have their anxiety above the normal range (normal range= 0-6). [13% mild, 23% moderate, 13% severe, 23% extremely severe]. 59% participants from the sample population were found to have their stress above the normal range (normal range= 0-10). [30% mild, 16% moderate, 10% severe, 3% extremely severe].

Among the four domains of WHOQOL-BREF, the highest mean satisfaction rating was found for DOM4 (Environmental support, Mean = 73.05), implying very good financial resources, opportunities for acquiring new information and skills and leisure activities. lowest mean score was shown for DOM1(physical health, Mean = 57.00), not very good activities of daily living, less independence on medicinal substances and medical aids, not enough energy and mobility, more pain and discomfort, insufficient sleep and rest and poor work capacity .The mean scores for DOM2 and DOM3 were found to be 64.54, 63.98 respectively. Most SD from mean (SD =21.51) was observed in DOM3 (Social Relationships). Greater SD of mean obtained from DOM3 might be associated with different interpretations of the questions used in this domain and also small number of questions. Mean scores of four domains were different and statistically significant. The most difference was observed between DOM1 and DOM4.

*Graph depicting the mean deviation and standard deviation for the four domains of WHOQOL (BREF)*

**VI. DISCUSSION**

The present study described for the ﬁrst time the detraining produced by the COVID-19 home conﬁnement in youth basketball players. While the result of our study showed 72% participants were affected at psychological level (e.g., depression, anxiety, stress) due to home confinement. Results highlight the multifaceted experiences and perspectives of these youth, with variations occurring both across and within individuals in all three domains (i.e., physical activity, mental health, social connections) during COVID-19 restrictions. Data have shown the difference in all the four domains of quality of life. The most difference was observed between environmental and physical domain. The isolation from their athletic team reduced activity and training, lack of formal coaching, have caused emotional distress in athletes12. Consistent with past studies which have highlighted the importance of social support for improving the psychological aspects among college athletes, more research is needed to address the past practices for supporting student athletes during quarantine/future pandemics. (Graupensperger, et al).

The majority of student athletes feel that COVID-19 has negatively impacted their mental health an extreme amount coincides with previous research that COVID-19 has brought many new strains onto student athletes which heavily increases their vulnerability to mental health13. Overall our study results highlights the need for proactive engagement with professional athletes, coaches, trainers, and sports councils to facilitate understanding and awareness-raising, process optimization, and delivery of consistent training and psychosocial aid and occupational therapy programs that maintain the health and well-being of athletes while minimizing occupational stress during a pandemic12. During the COVID-19 period, restriction measures and physical distancing undoubtedly have made quality basketball training quite difficult to achieve. This drawback will potentially affect not only the players’ game performance in the near future, but also their post-game recovery, especially if too many games are scheduled within a short period in order to finish the season in time. Team players have to deal with many psychological problems, such as lack of communication with teammates, feelings of isolation, high levels of perceived stress, and maladaptive psycho biosocial states.

Given that lockdown has wide-ranging, substantial, and potentially acute or/and long-term psychological effects (e.g., depression, anxiety, adverse behaviors, smoking, alcohol use, eating and sleep disorders) , identifying and controlling these consequences should be also a priority for players and coaches, which should motivate the players to seek professional assistance and social support when it is needed . As mental health and mental preparation of basketball players should not been ignored , players may benefit from psychological interventions provided by sport psychologists on cognitive–emotional regulation strategies, and develop psychological skills like stress management, attentional focus, communication, goal setting, mental practice, self-talk, and confidence in order to contribute to team performance efficiency and effectiveness.

**VII. LIMITATION**

1. Small sample size, so results derived from the study cannot be generalized.
2. No Intervention was given.

**VIII. FUTURE RECOMMENDATIONS**

1. Domain of fatigue and sleep deprivation can also be studied.
2. The sample study can be replicated in a larger population.
3. The Co-relation between male and female can also be studied.

**IX. CONCLUSION**

The study concluded that there is significant impact of COVID-19 on psychological aspects in basketball players.

**Conflict of Interest:** The authors report no conflict of interest in this study.

**Ethical Clearance:** Verbal and written consent were obtained from all participants.

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