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## STUDY REGARDING THE INFLUENCE OF THE PANDEMIC ON THE JUNIOR BASKETBALL TRAINING PROGRAM

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### Abstract

It is well known that the pandemic has affected all areas of activity, including sport at all levels of training and participation, especially during periods of total disruption of sports activities due to special measures introduced during the lockdown period.

*Aim.* The purpose of this study was to analyze how the training program and participation in competitions of junior basketball players were influenced and affected by the pandemic.

*Methods.* In order to identify the training models used and the differences that existed in terms of the training program during the pandemic between the players who practice performance basketball at junior level in Romania, we conducted an investigation based on the sociological investigation. We used the quantitative research method, namely the technique of administering the questionnaires by sociological survey.

*Results.* The results of the study show that the pandemic severely affected the training period of junior basketball players (73% of the respondents). If before the pandemic, 88.2% of the respondents did training 3-5 times a week, for at least one and a half hours, during the pandemic, for a period of 3-4 months, 31.6% of them did not train at all.

*Conclusions.* For both coaches and players, the pandemic was a challenge to find solutions to continue the training program and to maintain their level of physical and technical training. Most coaches kept in touch with their players, online and face to face, and offered them an individualized physical training program.

*Keywords:* pandemic, basketball, training, junior players.

### Introduction

The coronavirus epidemic has changed the world, negatively influencing all areas of activity, with sport being no exception, especially in team sports (Peña, Altarriba-Bartés, Vicens-Bordas et al., 2021). The drastic regulations regarding the development of physical activities and sports during the pandemic have seriously affected the activity of all sports clubs in the country, both in terms of training program and participation in competitions.

The measures taken by governments during the pandemic led to the interruption and partial or total cancellation of sports competitions.

The Romanian Basketball Federation (FRB) announced the affiliated structures that, after a long period in which our sports activity was stopped, starting from May 30, 2020, in accordance with the norms published by the authorities, the training activity in closed spaces can be resumed.

The regulations regarding the conditions necessary to be observed to resume the outdoor sports competitions, as well as the sports training activities indoors, by professional athletes, performance athletes and/or legitimate athletes.

Coaches were informed by the Technical Department of FRB to respect the following principles in physical and technical-tactical training of athletes, to organize the team for individual, physical and technical training, respecting the rules of social distance, without contact and without interaction between athletes, in the basis of the concept of an athlete - a ball.

After a while, the trainings took place gradually in groups/positions, working on workshops, being allowed the transmission of the ball between the group members, but without interaction.

Subsequently, depending on the relaxation measures communicated by the authorities, the

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interaction between the athletes of the same group/workshop and the moderate contact and/or collective training and specific training prior to the competitions were allowed (Joint Order MTS/MS no. 601/2020, [www.frbaschet.ro](http://www.frbaschet.ro)).

The Romanian Basketball Federation organized in Ploiesti, in September 2020, the National Junior Tournaments, both for women and men, for the Under 13, Under 14, Under 16, Under 18 and Under 20 age categories. Basketball was the first team sport in Romania to accomplish competitions at the junior level clubs during the pandemic, in conditions of maximum safety and respecting the conditions imposed by the Order of the Ministry of Health and the Ministry of Youth and Sports for outdoor sports events (<http://mts.ro/>).

A major challenge for coaches during the pandemic was how to effectively organize training sessions, without being a potential source of coronavirus spread.

Some coaches have designed home workouts for their players to minimize the effects of lack of face-to-face training and physical inactivity and to maintain their level of fitness. Other coaches proposed activities to improve specific technical and tactical skills.

During the pandemic, basketball players and coaches faced a number of problems, such as lack of organized training, lack of direct communication between athletes and coaches, restriction of movement and inadequate training conditions (Jukic, et al., 2020).

In many countries, face-to-face physical activity and team sports have been restricted suddenly and indefinitely, often being demoted to physical training at home (Hammami, Harrabi, Mohr & Krstrup, 2020). During lockdown COVID-19, regular training of athletes was interrupted. Unexpected breaks affected the quality and quantity of training, distancing the athletes from the daily routine (Andreato, Coimbra, Andrade, 2020). Home isolation and social distancing forced players to abruptly stop their training routine, leading to a decrease in their physical and technical performance (Moselhy, 2021). Social distance policies, strict return protocols and specific COVID-19 training have changed the way children and young people engage in organized sport (Elliott, Drummond, Prichard et al., 2021).

Coaches, physical trainers, and psychologists should provide useful advice to athletes during this period, using existing technological means, such as video calls, online meetings, e-mails, telephone, applications (Jukic et al., 2020). During the training interruption period, most of the players trained at home individually. Many players did not train too

much, others focused on developing motor skills. Although they performed physical training at home, the cessation of specific sports activities by mandatory closure by COVID-19 reduced the physical abilities of basketball players (Salazar, Svilar, Garcia, González-Lago & Castellano2020). Regardless of the type of training, it was obvious that basketball players will face detraining, a phenomenon defined as a decrease in physical performance due to the cessation of training activities (French, 2016). Strict measures taken to reduce COVID-19 virus exposure and transmission have limited athletes' participation in training sessions. Reducing normal physical activity can lead to deconditioning. It can negatively affect the neuromuscular, musculoskeletal, cardiovascular, and respiratory systems (Mulcahey, Gianakos, Mercurio, Rodeo & Sutton, 2021). Athletes and coaches need to adjust, or in some cases stop, their regular training sessions and competitive routine over a period, which can lead to decreased strength and endurance after training (Mujika and Padilla, 2000).

## Methods

The purpose of the research: The purpose of this study is to obtain as much data and information as possible on how the training and participation of junior basketball players in competitions was influenced by the pandemic. Analysis of how the training program was affected by the pandemic, how the coaches and players adapted to the measures imposed in the lockdown periods during the pandemic.

### Hypotheses:

- pandemic has affected the training program of junior basketball players and their participation in competitions;

- coaches and players had to adapt to the new situations created by the pandemic and find solutions for training.

### Objectives:

- identifying the way in which the players carried out the trainings during the pandemic;

- identifying the problems that appeared in the training program of the basketball players during the pandemic;

- identification of the solutions found by the coaches during the lockdown periods when the face-to-face training sessions were suspended.

Research method, technique, and tool: In the present research we used the method of quantitative research, the technique of administering questionnaires through sociological survey. For a higher participation rate, we used the snowball sampling method, asking coaches to send the

questionnaire link to their players and to other colleagues.

The sample investigated: The subjects surveyed were the members of the men's and women's junior basketball performance teams, affiliated to the Romanian Basketball Federation, who are involved in the National Junior Championships. This study involved 152 junior basketball players (76 girls and 76 boys), with age between 11 and 18 years old, involved in the National Junior Championships.

### Results

The gender distribution of the sample shows that, out of a total of 152 junior basketball players who participated in this study, 76 (50%) were boys and 76 (50%) were girls.

The distribution regarding the teams of athletes, the age, and the period since they are playing basketball, shows that we have respondents from 5 teams of girls and 3 teams of boys. The girls are representatives of the following clubs: Gladius Targu Mures (22 players aged between 12 and 16); ACS Napoca Basketball School (18 players aged between 13 and 18); Smart Basketball Team Cluj (17 players

aged between 11 and 16); BC Startes Iasi (10 players aged between 11 and 14) and CSM Targu Mures (9 players aged between 12 and 14). The boys' teams are U BT Cluj (33 players aged between 16 and 16); CSS Stomart Unirea Iasi (29 players aged between 14 and 18) and Big Up (14 players aged between 12 and 16). 78 of the respondents, representing 51.3%, have been playing basketball for more than 5 years, 34 of the respondents, representing 22.4%, have been playing basketball for 4-5 years and 40 of the respondents, representing 26.3%, has been playing basketball for 2-3 years.

Research population: It is represented by all junior basketball players who were involved in the 2020 National Junior Championships, regardless of age, position, and team.

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### How many training sessions a week did you have before the pandemic?

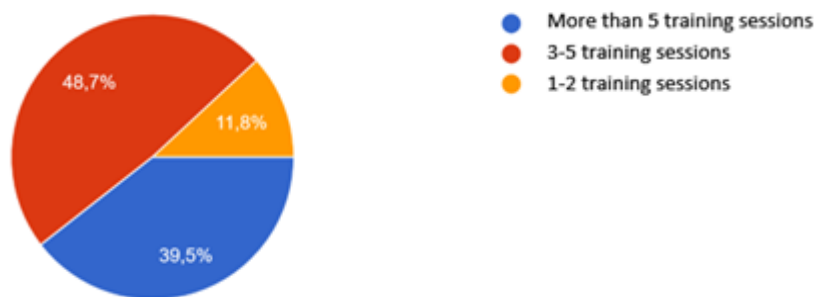


Figure 1. The number of trainings before the pandemic

Regarding the frequency and duration of training sessions before the pandemic, 39.5% of junior basketball players did more than 5 training sessions per week, while 48.7% did 3-5 training sessions per

week and 11, 8% did only 1-2 training sessions per week. The duration of training before the pandemic was an hour and a half for most teams (82% of players), only 18% of them trained for one hour.

### Has your training schedule been affected by the pandemic?

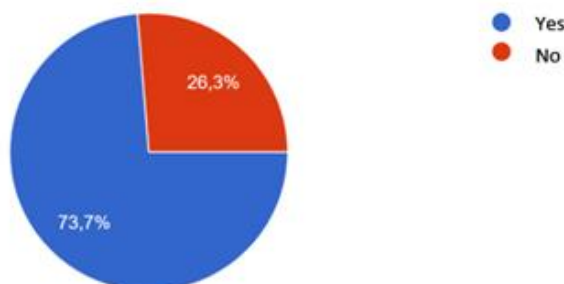


Figure 2. The training schedule during the pandemic

The constraints caused by COVID-19 and the lack of the possibility to carry out the trainings in normal and regular conditions have damaged the evolution

and development of the junior basketball players. 73,7% of them said the training program was affected by the pandemic.

### Do you think that the pandemic has negatively affected your training and performance?

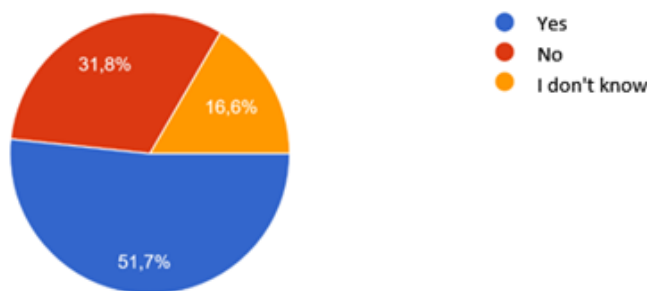


Figure 3. The influence of the pandemic on the training sessions and performance of players

Detraining means the partial or total loss of morphological and physiological adaptations induced by specific and non-specific sports training, due to the lack and/or significant decrease of training-specific

stimuli. 51.7% of the respondents consider that the pandemic negatively affected the training program and their performances, while 31.8% claim the opposite.

### How did the pandemic affect the duration of the training sessions?



Figure 4. Duration of training sessions during the pandemic

Regarding how the pandemic affected the duration of training sessions, 42% said that the training had the same duration, while 26% said that the training was shorter. Worrying is the fact that almost a third of junior basketball players, namely 31.6%, did not train

at all during the lockdown periods. This shows that some coaches have not been able, at least in the first stage of the interruption of activity, to adapt to this unforeseen situation.

### How do you evaluate your physical condition level when you started face to face trainings?

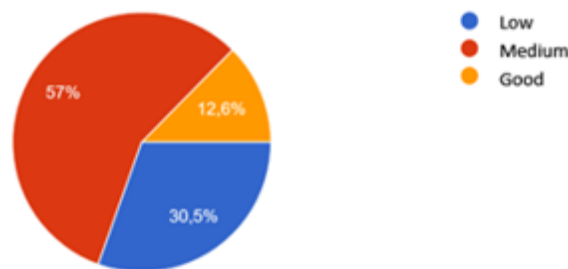


Figure 5. The level of physical training of the players after the resumption of face-to-face training

Only 12% of athletes consider that the level of physical training was good at the time they resumed the face-to-face training activity, 57% consider that

the level of training was average, while 30.5% believe that it was low, which strengthens the hypothesis that the training suffered during the lockdown periods.

### How long do you think it will take to reach the level of physical training you had before the pandemic?

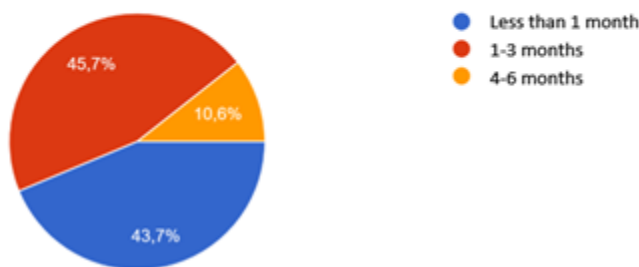


Figure 6. The time required to reach the pre-pandemic level of performance

It is well known that periods of interruption or reduction of activity in the field of sports and physical training require a long enough period of recovery to reach the previous performances. A large percentage

of respondents are very optimistic (43.7%), considering that they need less than a month to reach the pre-pandemic level, while 45.7% consider that they need 1-3 months.

### Discussion

The objective of this study was to explore the perceived impact of COVID-19 on junior basketball players in Romania.

Basketball competitions for all age groups have suffered because of the pandemic, coaches and

athletes have had to find ways to overcome obstacles to the optimal development of the training program.

The working hypotheses were confirmed, the respondents' answers clearly showing that the pandemic severely affected the training program of junior basketball players and their participation in

competitions. Communication and connection between coaches and players played a key role in continuing training programs during lockdown periods. Most of the coaches kept in touch with the players, some organized online training sessions, and most offered the athletes an individual training program, through which they focused on physical training.

### Conclusions

The training program of the junior basketball players was affected during the pandemic, both in terms of duration and intensity of training. The quality and quantity of training sessions decreased during the period of social distance, in which coaches and players had to adapt and find solutions to overcome barriers to participation and comply with the rules imposed by the authorities.

Because social distance rules and movement restrictions were imposed and group training sessions were banned, for many months the players were forced to train alone at home, under the close supervision and guidance of coaches, who through online platforms provided individualized training programs.

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### References

- Andreato LV., Coimbra DR., & Andrade A., 2020, Challenges to Athletes During the Home Confinement Caused by the COVID-19 Pandemic. *Strength and Conditioning Journal*, <https://doi.org/10.1519/SSC.0000000000000563>
- Elliott S., Drummond MJ., Prichard I. et al., 2021. Understanding the impact of COVID-19 on youth sport in Australia and consequences for future participation and retention. *BMC Public Health* 21, 448. <https://doi.org/10.1186/s12889-021-10505-5>
- French D., 2016, Adaptations to anaerobic training programs, In: *Essentials of Strength Training and Conditioning*, 4th ed. Editors: Haff, G.G., Triplett, N.T. NSCA.
- Hammami A., Harrabi B., Mohr M. & Krustup P., 2020, Physical activity and coronavirus disease 2019 (COVID-19): specific recommendations for home-based physical training, *Managing Sport and Leisure*, DOI: 10.1080/23750472.2020.1757494
- Jukic I., Calleja-González J., Cos F., Cuzzolin F., Olmo J., Terrado, N., Njaradi N., Sassi R., Requena B., Milanovic L., Krakani I., Chatzichristos K., & Alcaraz PE., 2020, Strategies and Solutions for Team Sports Athletes in Isolation due to COVID-19. *Sports (Basel, Switzerland)*, 8(4), 56. <https://doi.org/10.3390/sports8040056>
- Moselhy S., 2021, Effect of Online Training amidst Covid-19 Pandemic on Maintaining Physical and Technical Level for Junior Female Basketball Players. *The International Scientific Journal of Physical Education and Sport Sciences*. DOI: 10.21608/isjpes.2021.56016.1035
- Mujika I., Padilla S. (2000). Detraining: Loss of training-induced physiological and performance adaptations. Part II: Long term insufficient training stimulus. *Sports Med* 30:145–154
- Mulcahey MK., Gianakos AL., Mercurio A., Rode, S. & Sutton KM, 2021, Sports Medicine Considerations During the COVID-19 Pandemic. *The American Journal of Sports Medicine*, 49(2), 512–521. <https://doi.org/10.1177/0363546520975186>
- Peña J., Altarriba-Bartés A., Vicens-Bordas J., Gil-Puga B., Piniés-Penadés G., Alba-Jiménez C., Merino-Tantiña J., Baena-Riera A., Loscos-Fàbregas E., Casals M., 2021, Sports in time of COVID-19: Impact of the lockdown on team activity, *Apunts Sports Medicine*, Volume 56, Issue 209, 2021,100340, ISSN 2666-5069, <https://doi.org/10.1016/j.apunsm.2020.100340>
- Salazar H., Svilar L., Garcia L., González-Lago L., & Castellano J., 2020, Negative Impact of COVID-19 Home Confinement on Physical Performance of Elite Youth Basketball Players. *Sport Performance & Science Reports*. <https://www.frbaschet.ro/stiri/stiri/informatii-importante-referitoare-la-reluarea-pregatirii-sportive>
- <http://mts.ro/wp-content/uploads/2020/06/ORDIN-619-1077-Comple.pdf>