How athletes coped with COVID-19 restrictions: differences between Switzerland and Italy

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Key Points

1. COVID-19 has significant physical and mental effects on athletes including physical deconditioning, worsening nutrition and feelings of depression.
2. There is a need for closer medical, nutritional and psychological support for athletes experiencing COVID-19 pandemic.

Introduction

The ongoing COVID-19 pandemic is a global crisis of unprecedented scale in modern times. The initial outbreak of COVID-19 in Wuhan spread rapidly, affecting other parts of China and soon other countries becoming a global threat. [1] On 11 March 2020, the WHO has declared the ‘Pandemic state’ calling the governments to take ‘urgent and aggressive action’ to delay and mitigate the peak of infection. To respond to COVID-19 public health experts and government officials are taking several measures, including social distancing, self-isolation, or quarantine; strengthening health facilities to control the disease; and asking people to work at home. To safeguard the health of athletes and others involved all forms of organized sport have been either cancelled or postponed. These range from mass participation events such as marathon races to football league and even to the Olympics and Paralympics that for the first time in the history of the modern games, have been postponed, and will be held in 2021. All sport in Italy had been suspended from early March and from April the lockdown measures had been extended to the training session for professional and non-professional athletes within all sport facilities. Unlike Italy, the Swiss government has not imposed a general curfew so athletes continued to train outdoor although training in a group was forbidden. [2,3] Some athletes in this situation will be able to build on existing coping resources while others athletes may experience psychological symptoms including fear of being infected, anxiety of physical recovery if infected, disturbed sleep, eating disorders, obsessive-compulsive disorder, and family conflicts. These cancellations and wide-spread mandates for social distancing have affected many elite athletes’ ability to practice but current understanding of these lockdown measures on training, nutrition and mental health are limited. Therefore the aim of the present research was to provide answers related to questions about how athletes of two different countries have managed this global crisis.

Methods

A cross-sectional study was designed, a Google Form survey was distributed to 200 Swiss competitive athletes and 300 Italian competitive athletes. Recreational athletes were excluded. The survey was live for 48 h during the lockdown period, from 28 April to 30 April 2020, took 5-10 min to complete and consisted of 14 questions. All athletes included in the present study
underwent, as suggested by international guidelines, an ECG based preparticipation screening. None athletes were diagnosed with a condition at risk of Sudden Cardiac Death (SCD). Athletes were asked to read the description and need for the study and click on the link to proceed after giving consent. Data were collected from Google Forms and exported to a .csv file for the analysis.

**Results**

From a total of 445 distributed surveys, 337 athletes responded (75.7%), 198 Italian athletes and 139 Swiss athletes. The majority of athletes in both groups were male (73.4% Swiss vs 62% Italian) with an age between 26 to 40 years. In the Swiss cohort 24.3% of participants had an age between 51 to 60 years. In the Italian cohort most athletes practiced track and field (61.1%), followed by cycling (25.8%) and swimming (13%). Also in Swiss athletes, the most common sport were track and field (55.4%), Cycling (36%) and swimming (12.9%).

Before the pandemic most of the Italian and Swiss athletes trained for 5 to 10 hours per week, 28.3% of Italian athletes trained more than 10 hours per week whilst in the swiss counterpart only 12.9%. During the lockdown, we found no differences in training hours, as most athletes in both groups trained for 5 to 10 hours per week. There was a trend of reduction in weekly hours in the Swiss cohort during the pandemic for exercise maintenance and other activities, most of Swiss athletes continued to train outdoors (65.5%) compared to 37.4% of the Italian athletes. In both groups the preferred time of the day to train both before and during the pandemic were the late morning and the late afternoon. However, the Swiss athletes used to train more often in the evening. The lockdown highlighted an increase in morning workouts in Swiss athletes (*Figure 1*). Most of the athletes in both group trained alone, but the Italian athletes used technology like Zoom, Swift or YouTube videos more frequently to train with other athletes (50% vs 34%). In the two groups, training sessions consisted mainly of own body weight and cardio exercises like indoor running and cycling.
Figure 1: The figure shows the time of the day used by the Italian and Swiss athletes to train before COVID (blue bars) and during lockdown (orange bars).

In the Italian cohort, 49% of the individuals reported a change in eating habits during the
lockdown in comparison with 37% of the Swiss counterpart. Similarly, a higher percentage of Italian athletes have experienced weight gain (30.8% vs 21.6%). Regarding mental state, 8% of the Italian athletes felt depressed, in comparison with 5% of Swiss athletes. Both Italian (35%) and Swiss (28%) athletes reported energy loss and lack of motivation. In Swiss groups, 39% of athletes felt that they adapted positively to the new routine in comparison with 29% of their Italian counterparts, whilst around 20% of athletes in both cohorts reported no change in mental state (Figure 2).
Figure 2: The figure shows the weight and mental state changes during lockdown in the two cohorts of athletes.

**Discussion**

SARS-COV-2 infection is a highly contagious and fatal respiratory pandemic that is currently having a large negative impact on many different aspects of society, sports in particular.
Taking note of health authorities’ recommendations, several national and international athletic events, including the 2020 Olympics, have been postponed or canceled in an attempt to limit the virus spread by attending crowds. Videos from many well-known athletes showed that continuing with alternative training and adaptation during the pandemic has been possible; our research seems to confirm these reports, demonstrating that most competitive athletes continued to train, although with lower intensity and with alternative modalities during the lockdown. More than half of the Italian athletes used digital technology (namely Zoom or Zwift) to train with other athletes, in comparison to about 30% of the Swiss athletes. This result could be explained by the fact that lockdown measures in Italy were stricter than in Switzerland, where training outdoors, although with some distancing rules, was always allowed during lockdown. The findings of our study were in line with a survey conducted by the International Olympic Committee (IOC) showing that 50% of athletes struggled with the complexity of conducting proper training as a consequence of the restrictions imposed to contain the virus. [4]

A reduced training load may be associated with a deterioration in eating habits, especially a significant increase in carbohydrate ingestion, and weight gain that result in a myriad of issues including deteriorated performance, lifestyle-related concerns and affecting weight category sport. [5] In keeping with other reports from South Africa, the majority of athletes in our study did not report a change in eating habits, however about 30% of Italian athletes and 21% of Swiss athletes experienced weight gain. [6]

A recent consensus document on athlete mental health stressed the importance of mental wellbeing for optimal performance. In this context, the lockdown measures may have a detrimental effect on athlete mental health, so much so that the IOC launched a series of webinars to support and inspire athletes during these uncertain times and to share tips for athletes and their entourages on how to cope with the COVID-19 pandemic. Moreover, athletes and the general population alike are also exposed to the negative psychological consequences of COVID-19, like anxiety and stress reported where people are overwhelmed by the constantly changing alerts and media reports about the virus spread. In our research, we found that the majority of the participants experienced energy loss and lack of motivation since the outset of the pandemic, whilst about 10% of the Italian athletes reported feeling depressed compared to 5% of the Swiss athletes. This difference underlines once again how the lockdown measures influenced athletes’ wellbeing, since the Swiss athletes could continue to train outdoors during the pandemic. These findings underscore the deleterious effect of COVID-19 on mental health and underline the need for psychological support for athletes during and after lockdown.

In addition, the Swiss model seems to be more appropriate for elite athletes who could continue to train whilst minimizing the risk of infection. In this regard, government officials, public health experts and sports medicine physicians should work collaboratively with schools and sporting organizations to support physical activity whilst maintaining social distancing.
Conclusion
COVID-19 has significant physical and mental effects on athletes including physical deconditioning, worsening nutrition, weight gain and feelings of depression. Our survey confirmed that continuing with training is an important component to protect the mental health of the athlete, particularly to reduce the risk of anxiety and depression. Therefore, closer medical, nutritional and psychological support during and after the lockdown should be recommended.

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References