

## Commentary

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# The effect of COVID-19 quarantine on physical and social parameters of physical education providers and youth sport coaches

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**Abstract.** The potential ramifications of the COVID-19 pandemic global shut down on physical education providers and youth sport coaches may be particularly severe due to substantial cutbacks on many of their normal activities. This population faces unique challenges in engaging in “virtual learning” given the physical nature of their job, potentially leading to sedentary lifestyle, weight gain, and the development of depressive mood disorders. This commentary aims to explore options to mitigate worsening of stress, depression, physical inactivity, and social disconnection in youth sport coaches following the guidelines of the American College of Sports Medicine (ACSM) and to call attention to this vulnerable demographic which has been substantially impacted by the COVID-19 pandemic.

**Keywords:** Depression, social activity, physical activity, lifestyle

## 1. COVID-19 and coaches

Although the exact prevalence of COVID-19 is currently unknown due to asymptomatic cases, all age groups appear to be susceptible to infection [1]. Much emphasis has been placed on adverse effects of the COVID-19 lock down on youth demographics [1]. Physical education providers and youth sport coaches, collectively referred to this article as “coaches”, are potentially neglected populations that have likewise been particularly affected by the shutdown, given the difficulty in carrying out their profession

through “virtual” web-based means. Broadly speaking, the difficulty experienced by coaches (as well as other professionals whose normal lives have been derailed by the COVID-19 pandemic) can be categorized as falling under social parameters and physical parameters [2].

Social parameters are bolstered through active participation in a religious or cultural organization, or through participation in recreational, political, and volunteer activities while physical parameters refer to continuation of day-to-day physical activities [2]. The World Health Organization (WHO) has defined a close relationship between physical health and social participation [1]. Various studies have reported protective effects of social participation on physical health, and more socially engaged groups tend to be more physically active [1, 3].

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Many coaches across the world have lost these important daily physical and social activities during the Covid-19 pandemic. Evidence suggests that with decreasing physical inactivity and increasing social isolation, coaches could experience worsening of problems such as depression, anxiety, weight gain, and inactivity [4, 5]. Thus, the aim of this commentary is to propose a three-pronged approach to mitigating the effects of the COVID-19 lock down on coaches. Through careful attention to physical activity, mental health, and proper nutrition, improved coping with the “new normal” brought on by quarantine can be achieved.

Maintaining physical activity during the COVID-19 pandemic is especially essential for coaches. Thus, we suggest utilizing online-based exercise protocols, emphasizing aerobic and strength conditioning. According to the American College of Sports Medicine (ACSM), performing resistance training two times per week and moderate aerobic exercise three times per week is optimal with regards to exercise allocation [6]. Aerobic exercise includes marching in place, jumping rope, dancing, online aerobic activities, and walking or running on a treadmill. Resistance exercise includes isometric exercise, sit and stand movements, and other forms of weight training [2]. Other low impact physical activities could also be helpful such as walking around the home when talking on a cellular phone, cooking food, or cleaning the home [7, 8].

Attention to mental health during this time can decrease stress and depressive symptoms by focusing on regular and intentional exercises, which can improve mood and cognitive function. These activities may include using Apps to perform calming guided meditation, listening to music, and sport imagery visualizations. Social engagement should also be emphasized, and can be bolstered through a largely virtual approach, making efforts to call close friends, chat using online platforms such as WhatsApp, and through visual interaction using FaceTime [9–12].

Lastly, our nutrition suggestions can broadly be defined as emphasis on eating fresh foods, drinking a lot of water, and eating food with low fat and low salt. Coaches should consider reducing dietary intake because they may be less physically active during COVID-19. A challenge for this intervention includes intense food cravings. It may be helpful to understand that food craving is a multidimensional concept involving emotional (intense desire to eat), behavioral (seeking food), cognitive (thoughts about food), and physiological (salivation) processes [13, 14].

## 2. Conclusion

Through careful adoption and dissemination of coping strategies for physical education providers and youth sport coaches, a group that has been particularly affected by the COVID-19 shut down, we believe many adverse ramifications can be avoided. Maintaining a healthy and motivated core of coaches is imperative to continue to provide support to the youth who benefit tremendously from their mentorship and guidance.

## Conflict of interest

The authors declared no potential conflicts of interests with respect to the research, authorship, and/or publication of this article

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