

The Implication of Covid-19 Pandemic on Stress Level between Gender in Elite Athletes

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Abstract. Malaysia is one of the hardest-hit countries by the COVID-19 crisis, which has had a negative impact on the sports world. Sustained inactivity and lack of face-to-face interaction between teammates and coaches can have adverse effects on athletes. Taking stress-related performance factors into account, this study aimed to investigate the impact of the COVID-19 pandemic on perceived stress levels among elite male and female athletes. 139 male (n=63) and female (n=76) competitive athletes representing Malaysia enrolled in the PODIUM program completed the Perceived Stress Scale 10 (PSS- 10) I have answered the questionnaire. (1983) was adopted. An independent t-test showed a significant difference between male and female elite athletes in terms of perceived stress ($t(89.53) = -2.16, p = 0.033$). Female elite athletes (M=20.13, SD=5.78) reported feeling higher levels of stress compared to males (M=18.38, SD=3.02). These findings may raise awareness of the impact of COVID-19 on elite athletes, suggesting training programs and healthy behaviors as healthy habits for healthy well-being during the pandemic crisis. It may suggest that it should be adopted. The use of specific health protocols for female athletes should be encouraged.

Keywords: Elite Athletes, Male Athletes, Female Athletes, Perceived Stress

1 Introduction

In December 2019, a new type of coronavirus pneumonia broke out in China. It spread all over the country and around the world. The novel coronavirus disease (COVID-19), named after the World Health Organization (WHO), is spreading rapidly around the world, causing a detrimental impact on human lives due to the pandemic.

Its impact is reflected in morbidity and mortality, economic losses, and drastic changes in lifestyle and other normal daily activities [1]. Undoubtedly, the impact of the pandemic has had many effects on human behavior and institutions, and will likely continue for some time. The elderly, adolescents, health care workers, people with pre-existing mental illness, and athletes are also affected by this crisis[2]. This crisis has also affected the sports sector and the lives, plans and habits of athletes. Athletes reported challenges and problems related to social isolation, career interruptions, uncertainty about eligibility, effective training environments, limited and often denied access to partners and teammates. [3]. Many athletes are unable to complete sport-specific training due to travel restrictions and sports facility closures. Some sports already offer at-home training programs for their athletes or host video conferences for his coach-led online training. However, due to logistical limitations and the difficulty of implementing sport-specific training strategies, it is not possible to provide a training his solution that is applicable in normal circumstances. It is often difficult. Lockdowns, training, disrupted game schedules, and illness itself all increase anxiety and fear, leading to serious mental and mental health problems.

These psychological effects have been observed in different populations around the world during the COVID-19 pandemic. Like all mental health problems, stress, depression, and anxiety can become chronic and impair functioning in social and occupational areas [1]. Athletes, like the general public, are vulnerable to the negative psychological effects of COVID-19, including stress, anxiety, and depression [4]. Stress occurs when you are under too much pressure and become physically or mentally exhausted. The end result is long-term health hazards. Second, anger, irritation, mood swings, and frustration are examples of emotional cues. In addition, stress can cause physical symptoms such as high blood pressure, weight fluctuations, frequent colds and infections, changes in the menstrual cycle, and libido. Last but not least, inadequate self-care, lack of time for productive activities, and use of drugs and alcohol to cope are all signs of behavior to watch out for [8].]. Studies suggest that there may be biological sex differences in the incidence and onset of COVID-19 [1]. A previous study found that post-traumatic stress symptoms were lower in male athletes than in female athletes [5]. However, there are few data on the prevalence of anxiety, depression and stress among different gender identity groups during the current COVID-19 pandemic [1]. Therefore, the aim of this study was to determine its association with COVID-19. Pandemic tensions between elite male and female athletes in Malaysia.

2 Methods

Using a descriptive correlation design, the impact of the COVID-19 pandemic on stress levels between males and females in top athletes was investigated. The cross-sectional survey was conducted about a week after the athletes visited the National Sports Council's "quarantine" camp in Malaysia. Informed consent was obtained from all athletes, data were processed anonymously, and ethical approval was obtained from the university.

2.1 Recruitment and Sample Size

The study was conducted with 139 Malaysian Elite athletes of both genders (male, n=76, female n=63). The majority of the elite athletes who responded to participate in the study were aged 22-25 years old (n=36, 25.90%) followed by aged 18-21 years old (n=31,22.3%), aged 26-29 years old (n=30,21.6%), aged 30-33 years old (n=20,14.4%), aged more than 33 years old (n=12, 8.6%) and lastly less than 18 years old (n=10,7.2%) and 34.5% have experienced more than 8 years of representing Malaysia in international level (n=48).

2.2 Instruments

The instruments that used in this study were Perceived Stress Scale questionnaire (PSS-10) from [6] measure stress level. In PSS-10, 10 items in questionnaire ask you about your feelings and thoughts during the last month. It is a measure of the degree to which situations in one's life are appraised as stressful. There are 4 scales that are also included in this questionnaire which are 0) never 1) almost never 2) sometimes 3) fairly often and lastly is 4) very often.

3 Result

Table 1 reported the descriptive results of the demographic profile of the respondents. The majority of the elite athletes who responded to participate in the study were aged 22-25 years old (n=36, 25.90%). In addition, 54.70% are male (n=76), 64.70% are involved in the individual type of sports (n=76), and 34.5% have experienced more than 8 years of representing Malaysia (n=48). Table 2 reported the level of stress among elite athletes. It showed that majority of the athletes have a moderate level of stress (n=116, 83.50%), followed by 11.50% with low-level stress (n=16) and 5.00% have a high level of stress (n=7). Table 3 showed that there is a significant difference in perceived stress between gender in elite athletes. Female (M=20.13, SD=5.78) elite athletes reported having high perceived stress compared to males (M=18.38, SD=3.02), $t(89.53) = -2.16, p=0.033$.

Table 1 Descriptive results of demographic profile

		Frequency (n)	Percentage (%)
Age	<18 years old	10	7.2
	18-21 years old	31	22.3
	22-25 years old	36	25.9
	26-29 years old	30	21.6
	30-33 years old	20	14.4
	>33 years old	12	8.6
Gender	Male	76	54.7
	Female	63	45.3
Years representing Malaysia	<1 year	7	5.0
	1-2 years	10	7.2
	3-4 years	36	25.9
	5-6 years	21	15.1
	7-8 years	17	12.2
	>8 years	48	34.5

Table 2 Descriptive result of perceived stress scale

		Frequency	Percent
Level of stress	Low	16	11.50
	Moderate	116	83.50
	High	7	5.00
	Mean (SD)	19.17(4.55)	

Table 3 Comparison of perceived stress scale between gender in elite athletes

		Gender	N	Mean	SD	t	df	Sig. (2-tailed)
Perceived Stress Scale	Male		76	18.38	3.02	-2.16	89.53	.033*
	Female		63	20.13	5.78			

4 Discussion

The purpose of this study was to investigate the impact of COVID-19 on stress levels among male and female elite athletes. Regarding the current results of this study, the majority of athletes had moderate stress levels, 83.50% had low stress levels, followed by him with 11.50% and 5.00% with low stress levels. big straight. This finding is supported by the mention of [7] that repeatedly subjecting an athlete to the same training program can lead to adaptations of the stress response system and a reduction in the resulting ratings. negative consciousness. During the pandemic, most athletes have been forced to train alone and unsupervised at home. Some sports already offer at-home training programs for their athletes or host video conferences for his coach-led online training. However, due to logistical limitations and the difficulty of implementing sport-specific training strategies, it is not possible to provide a training his solution that is applicable in normal circumstances. It is often difficult. Withdrawal restrictions, training breaks, match schedules, and illness itself contribute to increased stress levels. A recent comparison of gender-related stress levels among elite athletes during the COVID-19 pandemic showed significant differences in perceptions of gender-related stress among elite athletes. Overall, female athletes performed better than male athletes at self-reported stress levels. This finding is supported by previous studies showing that women experience stress more frequently than men, possibly due to differences in their biological responses to stressors. Candor, self-

concept, or coping style [7]. As confirmed by previous research, male athletes are more likely than female athletes to use avoidable coping strategies, focusing on actively eliminating thoughts and avoiding actions. Situations reminiscent of stressful situations [7,9].

5 Conclusion

The results of this study show differences in gender identity associated with the prevalence of anxiety, depression, and stress during the COVID-19 pandemic. Differences in the psychological impact of the pandemic compared to different gender identity groups underscore the need for careful consideration of possible factors that may explain cisnormativity theories and prejudices. Gender stakeholders in formulating pandemic health policies and interventions to address gender issues. - Identity-related inequalities will be more efficient in the future. In summary, long-term psychological effects need to be investigated to determine how starting sport after a period of isolation changes mental health status.

6 Acknowledgements

The author would like to thank National Sports Council, Malaysia for providing the industry grant to complete this study. The authors would also like to express their gratitude to Universiti Teknologi MARA especially Faculty of Sports Science and Recreation as well as the participants for the support and cooperation in completing this study.

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