Illness, Crisis & Loss
1–26
© The Author(s) 2022
Article reuse guidelines:
sagepub.com/journals-permissions
DOI: 10.1177/10541373221119116
journals.sagepub.com/home/icl
SAGE

"This is Going to Stay": A Longitudinal Mixed Method Pilot Study on the Psychological Impact of Living Through a Pandemic

Toral Mandrekar[1] and Sahen Gupta[2,3]

Abstract

Living through the COVID-19 pandemic has been proven to have psychological impacts among individuals in both sport and non-sport populations. However, there is little available research comparing athlete and non-athlete populations in this context, especially among a non-western sample. This study employs a novel, longitudinal mixed method sequential explanatory research design to compare the impact of the COVID-19 pandemic between athlete and non-athlete populations and the role of physical activity. Phase A was a quantitative study measuring the psychological impact using the Impact of Event Scale-Revised among both groups (n = 32). Phase B was a qualitative study, with a sample (n = 7) participating in experiential interviews, exploring the lived experiences of participants over a 7-month period since Phase A was completed. Results indicated that athletes had lower psychological impact of the pandemic compared to non-athletes. Reflexive thematic analysis indicated that over the 7-month longitudinal period, athletes and non-athletes had different experiences across the themes of 'Appraisal and Coping', 'Cognitions', and 'Impact of the Pandemic'. Findings show A) a clear longitudinal impact of COVID-19 over a 7-month period; B) there is a clear contrast between sport and

[1]Department of Psychology, St. Xavier's College, Mumbai, University of Mumbai, India
[2]University of Portsmouth, School of Health, Sport & Exercise Sciences, Portsmouth, UK
[3]Doctorate student Sports and Exercise Psychology, Department of Psychology, Glasgow Caledonian University, UK

Corresponding Author:
Toral Mandrekar, St. Xavier's College, Mumbai, Department of Psychology, University of Mumbai, India.
Email: toral.mandrekar@gmail.com

non-sport populations, with participants indicating sport and physical activity to be a protective factor limiting negative psychological impact. Findings are discussed with recommendations for physical activity and sport for reducing psychological impact among both athletes and non-athletes.

Keywords
mental health, sport, COVID, longitudinal, India, mixed method, non-western

Introduction

The ongoing COVID-19 pandemic is a global emergency with a multidimensional impact. Several lockdowns, quarantines and curfews have been implemented to manage the pandemic since March 2020 (Castellano-Tejedor et al., 2022) with countries undergoing different stages of lockdowns with different waves of COVID (Zawbaa et al., 2022). The pandemic caused disruptions to sport at global and local levels (Parnell et al., 2020). Headline sport events such as the Olympics and the EUROS were postponed and grassroot/community level sport was suspended (Begović, 2020, McCloskey et al., 2020). The pandemic has impacted individuals globally, with specific implications for athletes, coaches, managers, sport organizations, federations, sport governance officers and sponsors (Byers et al., 2021). On a societal level, industry-wide disruptions caused economic insecurities, financial losses, and unemployment (Begović, 2020).

At the psychological level, COVID-19 affected the cognition, emotion, and behaviour of individuals (Li et al., 2021) with individuals experiencing guilt, shame, or stigma (Cavalera, 2020), and feelings of helplessness and fear (Polizzi et al., 2020). Research has indicated that the population is vulnerable to stress, anxiety, and depression, aggravated by suspension of physical activity, recreational and leisure sports (Begović, 2020). Low daily activity and prolonged home confinement has also affected sleep (Altena et al., 2020). Literature has also highlighted a high prevalence of post-traumatic stress symptoms and chronic psychological symptoms (Liu et al., 2020; Sun et al., 2021). Individuals have also engaged in increased ruminations about contracting COVID which has reconditioned behaviour and social interactions (Ho et al., 2020). This psychological impact is framed well by the Protection Motivation Theory (Rogers, 1975) which postulated that perception of risk is determined by the severity and vulnerability to a situation which determines the protective measures an individual undertakes (Khosravi, 2020). A disaster event like COVID-19 sets off negative reactions affecting cognitive assessment (Norris et al., 2002). Therefore, there is a clear *impact* of the pandemic on the thoughts, emotions, and behaviours of individuals.

As a population subgroup, athletes experienced uncertainty regarding their health along with anxiety for their physical fitness, occupational security, and performance (Samuel et al., 2020). Athletes have undergone physical deconditioning. They have had most competitions cancelled/postponed (Stambulova et al., 2020), in addition to nutrition deteriorations, disrupted training and sleep patterns (Pillay et al., 2020)

which has been caused due to tangible losses to athletic identity and support system (Gupta & McCarthy, 2021). Literature suggests that athletes have experienced a situation like a forced retirement (Jewett et al., 2019; Park et al., 2013). Barriers to quality training and lack of interaction with coaches and teammates have aggravated the psychological impact (Andreato et al., 2020).

The psychological impact of COVID lockdowns has impacted individuals in sport and non-sport contexts (Serafini et al., 2020; Gupta & McCarthy, 2021). However, existing literature supports the hypothesis that athletes and non-athletes will have fundamental differences in their levels and experience of negative psychological impact. Recent findings by Şenışık et al. (2021) reveal that physical activity contributes to athlete mental health compared to non-athletes even after a break from sport. This is supported by López-Gutiérrez et al. (2021) who studied psychological distress symptoms of anxiety and depression experienced by different groups during COVID-19. They found that while 50% of non-athletes experienced extreme distress, only 11% of professional athletes and 26% of amateur athletes experienced the same. In a similar vein, only 8% of non-athletes did not experience any distress while 20% of amateur athletes and 28% of professional athletes were free from any distress. Alamdarloo et al. (2019) have also found that female athletes' scores on anxiety and depression are lower compared to non-athlete females. In a comparative study, Bostani and Saiiari (2011) highlight that athlete score higher on emotional intelligence components of happiness, stress tolerance and self-assertiveness. The differences also extend to the prevalence of eating disorders which is higher among athletes compared to non-athletes (Joy et al., 2016). Evidence also indicates that athletes are more vulnerable to mental health risk factors due to previously underdiagnosed mental health risks due to the mental toughness culture promoted in sport (Schinke et al., 2018).

Due to the stressors brought about by COVID-19, pre-existing mental ill-health symptoms could have been triggered (Edwards & Thornton, 2020; Goyal et al., 2020), with an overall detrimental effect on the mental health and well-being of athletes and non-athletes (Mann et al., 2020; Reardon et al., 2021). Evidence indicates a tangible psychological impact on individuals due to the long-term temporal nature of the pandemic (Manchia et al., 2022), with some studies indicating sport and physical activity acting as a protective factor against risk factors to mental health (Canady, 2022; Şenışık et al., 2021; Wright et al., 2021).

However, little to no research has been conducted to explore impact across time using longitudinal research designs comparing sport and non-sport populations. Furthermore, as recommended by Gupta and Divekar (2022) there is a need for more representative studies with diverse samples in sport psychology literature. The importance of considering the cultural context while analysing the impact of the COVID-19 pandemic is highlighted by Lee et al. (2021). Cultural factors cause variations in the significance and adoption of protective behaviours, information seeking behaviour, along with the nature of society (collectivistic/individualistic) which influence the level of risks related to the pandemic. This constitutes a clear research gap, despite studies calling for more longitudinal evidence providing details on the

psychological impact of COVID across time, especially in the context of non-western samples (Gopal et al., 2020; Gupta & McCarthy, 2021; Hamza et al., 2021; Prati & Mancini, 2021). The primary objective of our study is to employ a mixed-method, longitudinal design to isolate and understand the impact of the COVID-19 pandemic among an Indian athlete and non-athlete group. To isolate the event-specific impact of the pandemic, we administered the Impact of Event Scale-Revised (Weiss & Marmar, 1997), to explore severity of distress, avoidant cognitions, intrusions, and autonomic arousal (Salsman et al., 2015). We followed this with a longitudinal qualitative phase to deeply understand the lived experience of the impacts of the pandemic over time.

Research Question

To explore the longitudinal impact of the COVID-19 pandemic on athlete and non-athlete groups by isolating and exploring the changes in cognition, behaviour, and emotions and the coping strategies and mechanisms used.

Method

Research Design

This longitudinal research was conducted in two parts using a sequential explanatory design. Phase A was a quantitative study with a sample of athletes and non-athletes measuring the impact of the COVID lockdown event. Phase B was a qualitative follow-up study with the same participants 7 months after Phase A, to explore the changes in lived experience.

Research Paradigm and Methodological Congruence

In line with the recommendations of Braun and Clarke (2021), a focus was placed on achieving a 'good fit' between theoretical and conceptual underpinning and the level of analysis employed. We ensured consistency throughout ideation, research questions, philosophical orientation, and theoretical perspectives to achieve this (Mayan, 2009). This study adopts a stance of ontological relativism (Creswell, 2013) and is based on an interpretivist-realist epistemology concerned with understanding the wide-ranging impacts of the COVID pandemic among athletes and non-athletes through a longitudinal design. Statistical analysis was chosen to gauge responses on the psychometric and thematic analysis was chosen to dive deeper to understand patterns within the lived experiences.

Recruitment and Participants

Ethical clearance for the study was obtained from university institutional ethics board. Purposive sampling was used to recruit participants. For the athlete group, Indian table

tennis athletes, residing within India during the COVID-19 pandemic were included. For the non-athlete group, individuals who did not play competitive sport, nor engaged in regular sport-based training were included. Recruitment was conducted from an applied sport environment from second author's practice. The same group of participants were invited for the qualitative study. For the interview, participants who were uncomfortable/not fluent in English were excluded to ensure linguistic standardisation in the interview process.

Participants were briefed on the parameters of the study and informed consent was obtained. Phase A of the study had 32 participants with 16 participants in the athlete group (M_{age} = 17, SD = 3.56; male/female = 9/7) and 16 participants in the non-athlete group (M_{age} = 17.13, SD = 3.86; male/female = 7/9). Phase B qualitative study had 7 participants (athlete group = 3; non-athlete group = 4) from the initial sample who consented for interview (M_{age} = 20.14, SD = 1.95; male/female = 2/5).

Measures

The Impact of Event Scale-Revised (IES-R) (Weiss & Marmar, 1997) was the psychometric used to measure the psychological impact of the pandemic. The IES-R measures subjective responses to a traumatic event experienced by an individual i.e., COVID-19 pandemic here (Weiss, 2007). IES-R has 22 items and three subscales - intrusion, avoidance, and hyperarousal. Responses were provided on a Likert scale, with 0- not at all and 4- extremely. The scale yields a total subjective stress IES-R score which is categorised as normal/minimal psychological impact (score 0–23), mild psychological impact (score 24–32), moderate psychological impact (score 33–36) or severe psychological impact (score >37) (Wang et al., 2020).

Semi-structured interviews were employed for Phase B qualitative data collection. Interview schedule included open-ended questions with probes offering participants the space to explore their experience of the psychological impacts of the pandemic over the 7-month period. The interviewer took the role of an 'active listener' (Smith & Sparkes, 2005) and encouraged the participants to share their stories by using techniques from experiential interview schemes such as reflecting upon lived situation (Janz, 1982).

Procedure

Phase A. Participants were informed about the background and purpose of the study on first contact during applied sport and exercise psychology support following which informed consent was secured. Parental consent was also obtained for participants under 18 years of age. IES-R was administered to all the participants using a printed/digital version. Participants were briefed on the instructions on the scale and were encouraged ask for any clarification. Participants were informed of their right to withdraw, protection of identifiable information and data confidentiality. Upon completion of the IES-R, participants were debriefed, and consent to contact them for Phase B was obtained.

Phase B. Participants were followed up with consent after 7 months and were invited for a 30–40-min online interview over Zoom. Participants were re-briefed on research objectives, and informed consent was obtained. Permission to audio record the interviews was obtained. The process of interview was outlined, and participants were encouraged to inform the interviewer if they experienced any discomfort while talking about the ongoing COVID-19 pandemic. Data confidentiality, storage and right to withdraw was briefed to the participants. Participants were also debriefed at the end of the interviews and the interviewer answered any follow-up questions. Authors had sole access to the data which was stored on a private drive. Verbatim transcription was conducted, and transcripts were anonymised and coded to redact any identifying information to maintain data integrity and protect participant identity (Saunders et al., 2015). Pseudonyms were assigned to participants.

Data Analysis

Phase A. Data was organised using Microsoft Excel and analysis was conducted using IBM SPSS 22. The scores for each IES-R subscale were determined by calculating the mean of items corresponding to the particular subscale. IES-R total score was calculated as sum of subscales according to psychometric scoring instructions to calculate psychological impact into minimal, mild, and moderate/severe (see Weiss & Marmar, 1997). Due to sample size limitations, inferential statistics was not conducted. Percentage of responses were calculated across total sample and divided into the three categories across athlete and non-athlete subgroup to present an overview and comparison.

Phase B. Qualitative data collected using interviews was analysed using reflexive thematic analysis (Braun and Clarke, 2019). The analysis was informed by the six phases of analysis outlined by Braun and Clarke (2006). The first author collected the data, conducted verbatim transcription, and re-read transcript for data familiarity. Manual coding was conducted. Open coding of relevant data items was done to ensure transcripts were divided into smaller, semantically meaningful groups via a data-driven process. The next step of coding was theory-informed coding. Axial coding was conducted to collate relating data together under codes/categories. For example, codes under the subtheme 'Appraisal of Stress' were included if they were "largely evaluative, focused on meaning and significance" of the event (Lazarus and Folkman, 1984, p. 31).

Finally, thematic coding was conducted to examine the relationship between codes and cluster related codes together into a thematic map. Key patterns were visualized as a hierarchy with overarching themes and sub-themes, with a few discarded and miscellaneous codes. The themes were then reviewed, merged, broken down, discarded, or newly developed keeping in mind Patton's (1990) dual criteria of internal homogeneity and external heterogeneity. Themes were refined twice to ensure a clear, central organising concept and a homogenous 'fit' with the coded data while accurately

representing the meanings reflected in the overall data set. The second author also engaged in the two levels of review to ensure that the developed themes were nuanced and relevant and to the research question. Critical friends were also used to provide feedback on the inference and coding process. Lastly, the themes were named and defined to build a coherent narrative of the data.

Results

Phase A

Psychometric scoring of the three IES-R subscales (Avoidance, Intrusion and Hyperarousal) revealed the psychological impact of the pandemic (Weiss & Marmar, 1997). The results indicate that the psychological impact for the athlete group ($M = 21.44$, $SD = 11.06$) was lower than that for the non-athlete group ($M = 25.77$, $SD = 16.95$). Among the participants ($n = 32$), 46.88% reported minimal psychological impact (score <23), 28.12% reported a mild psychological impact (score 24–32) and 25% reported moderate or severe psychological impact (score >33). The psychological impact reported by the athletes and non-athletes is represented in Figure 1.

Phase B

The reflexive thematic analysis highlighted 3 global themes, 9 organising themes and 65 basic themes (Braun and Clarke, 2006; Attride-Stirling, 2001) (see Table 1; Figure 2).

Theme 1: Appraisal and Coping

Appraisal of Stress. Results indicated stark differences across participants in how they engaged in appraisal of two waves of the pandemic over 7 months. This was highlighted by "Ethan".

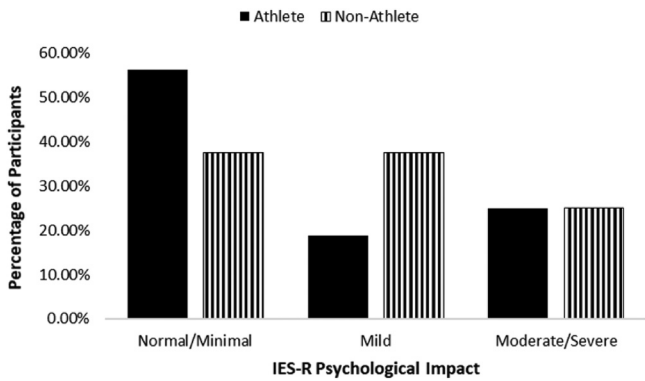

Figure 1. The IES-R psychological impact on athletes and non-athletes.

Table 1. Emergent global, organising and basic themes.

Global Themes	Organising Themes	Basic Themes
Appraisal and Coping	Appraisal of Stress	Primary appraisal
		Secondary appraisal
	Coping	Getting another perspective
		Seeking professional help
		Seeking advice
		Use of drugs
		Eating
		Talking about the problem
		Letting it go
		Procrastination
		Reaching out to friends
		Distractions
		Avoidance
		Causal attribution - controllability
	Support System	Familial support
		Support from friends
		Support from partner
		Support from neighbours
		Occupational support - coach, peers, seniors
		Social media
		Loss of support
Cognitions	Ruminations	Passive brooding
		Active self-reflection
		Infection and vaccine-related ruminations
	Attitudes towards Occupation	Online college
		Questioning priorities
		Interested in the interactions than learning
	Attitudes towards Mental Health	Beneficial
		Curiosity regarding MH
		"No need"
		Need for/Lack of sport psychology help
Impact of the Pandemic	Lifestyle Changes - Behavioural Change	Changes in sleep schedule
		Change in eating habits

(continued)

Table 1. (continued)

Global Themes	Organising Themes	Basic Themes
		Routine related changes
		COVID- 19 related practices
		Active-sedentary change
		Staying occupied
	Lifestyle Changes - Activities	Picking up new skills
		College activities
		Internships
		Physical activity
		Leisure activities
		Hobbies
		Use of recreational drugs
	Emotional Experience	Anxiety
		Worry
		Uncertainty
		Fear
		Happiness
		Gratitude
		Guilt
		Sadness
		Boredom
		Loneliness
		Fatigue
		Helplessness
		Irritation
		Anger
		Frustration
		Relief
		Empathy
	Impact on Sport	Impact on training and competition
		Working on sport at home
	Inter and Intrapersonal Changes	Positive changes
		Negative consequences

> "So 2nd lockdown at least was a lot heavier mentally, physically, just very fatiguing … the first lockdown still felt a little refreshing like being at home … but second lockdown I just completely blanked out on like anything positive."

However, for some participants, the primary appraisal of the pandemic changed when the gravity of the situation set in. "Sakshi" illustrates this shift, stating:

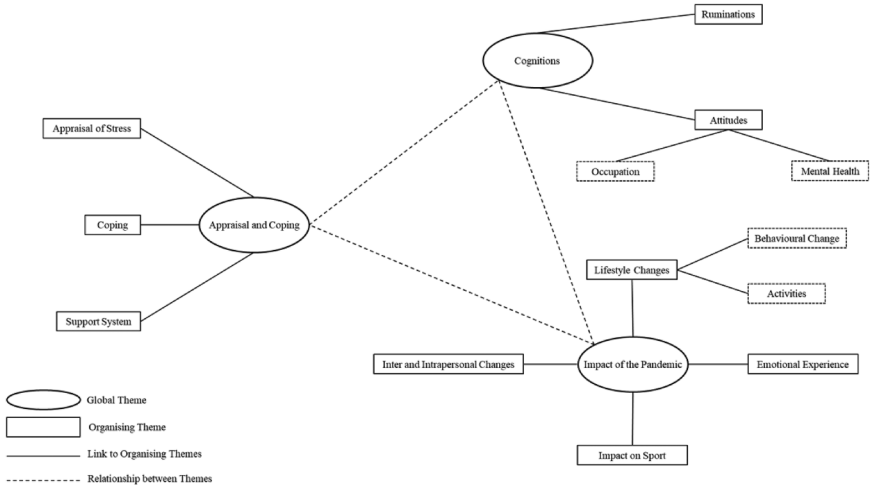

Figure 2. Thematic map resulting of the longitudinal experience of psychological impact of the pandemic.

> "As the cases kept rising, I think everyone came to terms with the fact including me that this is going to stay and we don't really have a solution for it and that is when uh anxiety, stress everything started mounting." (Participant "Sakshi")

"Sanvi" experienced an increase in anxiety due to her appraisal of this event as something stressful that she could not imagine coping with i.e., an example of a secondary threat appraisal.

> "I was very anxious because the second wave was very … it was very prominent in terms of number of deaths, number of people getting COVID and like really rise number of people losing their loved ones so I was very anxious."

Among the athletes, both "Aditya" and "Sneha" initially appraised the pandemic as beneficial which protected them from a severe negative impact and allowed them to use this time for personal, interpersonal, and professional development.

> "This had never happened in our life we always keep on training and there's a heavy routine of practice and matches and we hardly have time to breathe so like at first in the first 10 days of the lockdown it was kind of a welcome change." (Participant "Sneha").

Coping. Among the non-athletes, some participants deployed various problem-focused strategies, one of which was described by "Sanvi".

> "I would plan, that's the first thing I would do, I would assess the situation … and assess what the current situation is and what are the other different ways I can go about it and try to deal with it."

Both groups used various emotion-focused and/or avoidance-focused strategies like using drugs, consuming food, talking about the problem, letting it go, procrastinating, reaching out to friends, using distractions and avoidance. "Disha" shared that she had never felt "this stressed" as she did during the pandemic. Some participants reported an improvement in their mental health when they engaged in structured coping resources, while others experienced no change and came up with new strategies (see Table 1). Among the athlete group, most athletes engaged in emotion-focused coping determined by the controllability of the situation. This process of coping is best highlighted by "Arzoo's" focus on appraisal and coping,

> "But if something is not in my hand, I can't stress about it and stretch it so if it's not in my hand I try to let it go, it takes time but I try to let it go but if something is in my hand, I try to search for other options … what can I do about it and then I try to do that thing." (Participant "Arzoo")

Support System. Family, partners, and friends were a crucial part of the support system for all the participants as they provided emotional, esteem and tangible support. For athletes, their support system also comprised sport-related individuals like coaches and senior players.

> "Few of my close friends (from sport) who were always in touch we used to uh discuss together about picking up new skills or doing something or keeping each other on track with our fitness routines and all that so if one does it and he you know makes sure that the other guys do it as well" (Participant "Aditya")

"Ethan" recalled the distress he experienced caused by the loss of his best friend's support and "That is another huge change in my life because I don't have that number 1 person to go to for a problem, for an issue. So that's been a pretty heavy, like a pretty big change"

Social media also served as a medium of support. For example, feedback and validation was a source of esteem support for "Arzoo" and a way to be connected with her sport life through the digital space. She stated, "I was really happy, I was posting it everywhere, I'm getting comments and all so I'm feeling good about it."

A key distinguishing factor of social support during the pandemic was the complete shift of social support via virtual, digital medium where most social interactions were taking place due to lockdowns and social distancing laws. Some participants adapted to these novel circumstances by using online video call applications to their advantage. "Sanvi" illustrated this change by saying, "So my friends and I … we started this group, every week group call and we would play like games and like talk and like see movies or something to like lift each other up"

However, at times, participants expressed that virtual media served as a barrier in communication which caused a great deal of annoyance and frustration. "Disha" highlights,

> "It's kinda difficult to communicate with people through you know virtually and I couldn't meet a lot of people … I think overall I just sort of shut down in the middle and I was just keeping things to myself"

Theme 2: Cognitions

Ruminations. For most non-athletes, the focus of their thoughts and feelings described the active self-reflection component of rumination.

> "We all know that life moves on, but this pandemic has taught me that it DOES move on like whatever happens the world might come to a stop, you might lose people, you might lose billions of people but life continues regardless of whatever happens and you have to pick yourself up." (Participant "Sakshi")

Participants also experienced intrusive thoughts centred around infection and vaccine-related ruminations. Furthermore, history of mental health concerns also had an impact on ruminations.

> "I have anxiety and like generalised anxiety and anticipatory anxiety so that really got enhanced in the entire in the entire thing of what is going to happen, what is the future so those thoughts of overthinking." (Participant "Sanvi")

The athlete participants' ruminations were mainly process-focused, or avoidance-focused based on controllability. This was expressed as beneficial since it allowed higher levels of mastery during daily life activities.

> "For some time during the day even if you feel you know a bit sad or whatever I don't- I didn't dwell on that is what I'd say. I was trying to you know do something or the other to keep myself occupied or do something which would either help me in my academics or with my sport." (Participant "Aditya")

Attitudes towards occupation and mental health. The majority of the participants were full-time students (in addition to sport and/or part time occupation) and shared their experience with online university and education. Nearly all participants highlighted why students were asked to focus on college and assignments when "there are like much greater things of like COVID happening" (Participant "Sanvi").

Among the athlete participants, "Aditya" highlighted a different pattern, because he used to miss university due to travelling to tournaments across the year. He noted, "I used to make sure that I attended those I used to make sure I attended all the casual video calls and group chats after that, lecture part me I'm not interested." This indicates how education and occupation also contributes directly to social support.

When it came to attitudes towards mental health, nearly half of the participants did not access therapy either due to a perceived lack of need or due to financial restrictions. The other half expressed a different opinion which "Sanvi" described as "I like it

{therapy} it's like a calming way of I get to deal and rational out my emotions in a way of like why am I thinking the way I am thinking."

All athletes shared that they did not feel the need to seek help from a mental health professional. For some, it was because they had a positive experience with the pandemic or because they had a support system that met their needs. For others, there was a perception that the negative impact that they were facing was "manageable." However, when it came to seeking help from a sport psychologist (SP), participants had different experiences. Since there were no tournaments, "Aditya" did not feel the need to speak to an SP. However, "Arzoo" said,

> "I was a little scared… that I'm not a- I'm working so hard, I'm playing well but when I'm playing matches there was something- something is going wrong, so I just went once to Dr P and he just explained me some things." (Participant "Arzoo")

Theme 3: Impact of the Pandemic

Lifestyle changes. The first aspect of lifestyle changes included behavioural change. All non-athlete participants reported a complete change in sleep schedules due to a lack of externally set routines, which was a behavioural change. "Sakshi" shared how her internship was "pretty flexible in its timings" which allowed her to sleep in in the morning and work till late. COVID-19-related practices along with routine-related changes were an aspect of behavioural change.

> "A simple thing like washing your hands once you get back home so that I would I don't know if I was doing it pre-pandemic but right now it's such a rigid thing … so that behaviour I think has really set into me." (Participant "Sanvi")

A major point of difference among athletes across the longitudinal time period was the shift from an active sport lifestyle to a home-contained, sedentary lifestyle where "staying occupied" was difficult. All athletes highlighted the impact of lethargy that set in after loss of their normally sporting and active lifestyle which also had self-esteem, and self-regulatory effects. "Sneha" shared her experience of how "Lethargy had kicked in and uh even though I was keeping myself busy I was not practising, so there was this constant thing I was feeling that what I'm doing is not enough right now."

As a result of this change, all athletes shared the sentiment of trying to stay occupied to avoid self-critical thoughts and maintain a behavioural pattern. All athletes engaged in some form of explorative behaviour over the seven-month time period such as in in leisure, hobbies (e.g., painting), learning new skills (e.g., knitting) or household chores. "Arzoo" specifically stated how painting and other creative pursuits allowed her to explore her identity beyond that of her athletic one. "Arzoo" highlighted how she was "feeling happy that I'm doing something good…if it turned out well, I'm more happy that yeah it's looking good…I can do this also, except than playing I can do this…so I was feeling very good about that."

Such activities were examples of autonomy, personal development and task-focused coping and reduced the psychological impact "Aditya" shared, "I was trying to you know do something or the other to keep myself occupied or do something which would either help me in my academics or with my sport or with my general fitness level."

Among non-athletes, college activities, internships and other daily life processes became behavioural engagements. Interestingly, over the seven-month period, participants picked up and engaged in physical activity for fitness and health purposes. This was different to athletes who engaged in it for professional purposes. For some participants, physical activity was also a way of coping with the lifestyle impact of the pandemic. "Disha" recounts how,

> "You know there was no physical exercise like I have always throughout my life since I was like 5 years old, I have been doing something physically … so that was making me really restless and fidgety at the start because I was getting no physical exercise in and I was putting on weight that was making me feel very anxious about myself as well."

Emotional experience. Anxiety, worry, uncertainty and fear were common emotions among the participants during the pandemic. This was due to multiple factors including the rising number of deaths, the prolongation of the pandemic, fear of losing family, uncertainty about college and anxiety about missing practice. Some participants also experienced an increase in the intensity of these emotions which is best captured in the narrative of "Sakshi".

> "Once the pandemic started obviously these feelings of anxiety, tension, worry all arose and as the cases kept increasing these feelings kept increasing so if I like didn't have these feelings at all, if that's the baseline then all these feelings came to like a mid-level high and they've stayed that way."

Being able to catch a break and be safe from the virus made many participants happy and grateful but it was accompanied with guilt. "Sakshi" shared that there was "A lot of emotional sort of imbalance because you're sort of happy that you're safe but that the same time you know it's so bad out there that you can't really be happy." Boredom, loneliness, fatigue, and helplessness were also among the emotions experienced by different participants. However, frustration, irritation and anger were potent emotions when it came to contracting the virus and being limited by the restrictions and lockdowns.

Mental health concerns also had a role to play in exacerbating the emotional impact of the pandemic. The intensity and expression of "Ethan's" emotions were affected and sometimes led to breakdowns.

> "On some days I feel I'm at an 8, 8 out of 10 pain scale and the 8 is a good day, the 11 is a bad day so that's how it is like. So…my emotions are like either like they are polar opposites."

Athletes experienced similar emotions to those of their non-athlete counterpart, but the intensity and frequency was considerably lower. They also did not speak about feeling sad, guilty, or angry. However, one emotion that was expressed solely by the athletes was that of relief, especially for "Aditya" who was dealing with "injury issues."

Impact on sport. The impact on sport was categorised into two basic themes. The first one was the impact on training and competition. Athlete participants' experiences with the gap in training, the effect on performance, and the emotions they felt when training resumed were quite unique. "Aditya" shared how he "didn't lose anything in terms of the sporting aspect." When lockdown restrictions were partially lifted after the 1st wave had subsided, "Arzoo" shared that her lockdown training made her feel confident about the efforts she had put in, which was further validated by her good performance in the national tournament. However, there was a longer gap to training and return to sport after the second COVID-19 wave. This resulted in longer disengagement from sport which caused numerous challenges such as "getting tired so early" (poor sleep cycle) and "getting back in shape" (body image and fitness concerns), as well as a fear of losing to a junior and/or less experienced/lower ranked player.

Similar to other athletes, "Sneha" shared feeling "REALLY great" (emphasis during interview) when training resumed and for her, the feelings of loneliness went away. The second basic theme was related to how athletes adapted and continued to work on their sport at home, mental or physical. "Aditya" spent time doing yoga and pranayama to increase his flexibility along with,

> "I was also doing my well regular fitness stuff as in I mean like I said, it gave time to do a lot of rehab work as well, like suppose injury-specific work and all, so to strengthen that particular area."

> "Arzoo" and her husband, also a professional table tennis player, used to work out and practice on the table they had at their second home. She used various techniques as a supplement for on-table training like, "I used to visualize that I'm playing before sleeping, after waking up I used to see some good TT matches, some old matches of mine, some old matches of some players, some good players which I follow."

Like the others, "Sneha" also continued working on her fitness during the pandemic. She also engaged in activities which would indirectly help her when she resumed training. She described one such activities, "I even learned knitting, so it helped kind of to like uh it helps for focus and mindfulness so uh whenever uh like not much time was given to negative thoughts."

Inter and intrapersonal changes. The inter and intrapersonal changes were perceived as positive and negative by the participants. Individual differences were found in the perception of these changes as the positive changes were not very extensive for the non-athlete participants. For "Disha", it was an improvement in health while for "Ethan" it

was gaining self-awareness as he expressed "I've started recognising myself for a lot more of personal reasons like I know a lot more about who and what I am now than I did before."

The experiences of athletes were specifically focused on the themes of 'Relationships and family' and having 'Time for themselves'. "Arzoo" talked about how she was able to "spend quality time" with her family while "Aditya" shared how the pandemic gave him "time to take care of" himself and:

> "It allowed me to work on a few things on myself as well which I wouldn't had the time to if this hadn't happened. So, for me, I would say it had a positive impact and although you do miss out on some things but I gained some things as well."

Among non-athletes, primary focus was placed on negative changes in their education and university. "Disha" specifically evoked how "I felt I mean I have been in college since like the 11th grade, so I felt robbed of the two years." However, athletes did not specifically consider the loss of education or university life as a major interpersonal change important to them. This could be indicative of individuals perceiving themselves as 'athlete-first' and 'student-second'.

Discussion

The results of the study indicate that athletes had minimal psychological impact from the COVID-19 pandemic lockdowns over a longitudinal period as compared to non-athlete populations. The two waves of the pandemic that participants experienced throughout the two data collection points of this longitudinal study align with "Coronavirus Stage A and B" of Samuel et al. (2020)'s conceptualisation of the COVID-19 pandemic as a career change event. Specifically, the athletes noted that in the initial Stage A, there was an environmental change which caused physiological and psychosocial changes in motor skills, performance and achievement, motivation, and relationships. Across time, this also impacted them through issues such as (but not limited to) changes to their sleep schedules and exercise regimen, which led to lowered mastery, competence, and confidence (Gupta & McCarthy, 2021). This also led to feelings of inadequate preparation and higher pre-competitive anxiety (see Results section), which is indicative of athletes returning to competitive sport after a prolonged period out of it (Aravind et al., 2022; Pineda-Espejel et al., 2015).

The psychological impact measured by the IES-R revealed that half of the participants reported a minimal psychological impact. This is in contrast to Wang et al. (2020) who found that majority of participants reported a moderate or severe psychological impact. One contributing factor to this difference could be the time frame and longitudinal nature of the study. Wang et al. (2020)'s study was conducted in the beginning period of quarantine whereas the current study was conducted from February to September 2021. Research indicates that individuals have gotten habituated and had cognitive adjustments to the reality of living while the pandemic was

going on (Daly & Robinson, 2021; Fancourt et al., 2021), which may explain the divergence of results. Athletes reported experiencing many challenges such as selection and qualification uncertainty, restricted access to training avenues, need for an opponent, on-location practice and need for equipment (Andreato et al., 2020; Schinke et al., 2020; Tayech et al., 2020). However, results indicated that they actively engaged in self-determined intrinsic motivational processes guided by autonomy, in search for competence (skill maintenance) and relatedness (social support) (Bartholomew et al., 2011) across the longitudinal period of time.

The results of this study did not support the findings of Xiong et al. (2020) stating that prolonged quarantine periods are associated with a higher prevalence of psychological distress and posttraumatic stress disorder symptoms. Only 20% of the participants in our study scored severe in the IES-R and did not link the psychological impact to quarantine factors, but other factors such as pre-existing mental health conditions or distinct lifestyle changes during the interviews. Interestingly, non-athletes scored higher than athletes on the IES-R, indicating a higher psychological impact. From the qualitative study, it was clear that athletes were making greater attempts at being physically active by incorporating physical and skills training into their lifestyle, as compared to non-athletes who were generally sedentary during the lockdown periods. This engagement in physical activity has been associated with reduced event stress levels (Şenışık et al., 2021), along with reduction of anxiety and depression symptoms (Mammen and Faulkner, 2013; Schuch et al., 2019) and could be one reason for the differences between athlete and non-athlete group.

Our findings also support the assertions that COVID-19 is a non-normative adversity for sporting populations (Gupta & McCarthy, 2021). Aligning our findings to Nicholls et al., (2016)'s sport-specific classification of coping, it is seen that athletes adopted internal regulation coping strategies like emotion-focused coping and acceptance compared to non-athlete group. Examples of common strategies across both groups were 'remain busy', 'sharing feelings with others', 'talk to others', and 'struggling to deal' (see Kar et al., 2020). A key finding of our longitudinal study is the process and utilisation of social support. There was a clear shift to the dimension or means of social support. All participants accessed social support, interactions, and connectedness through the digital world via online medium of text messaging, and videoconferencing which contributed to positive coping (Garfin, 2020; Marcin et al., 2016; Naslund et al., 2016; Seabrook et al., 2016; Tsai et al., 2010). Participants also used online medium for value driven social activities such as educational activities, training, celebratory events, pursuing hobbies which increased psychological well-being (Dekel et al., 2016; Polizzi et al., 2020)

Interestingly, results indicate both athlete and non-athlete groups were in direct contact with their occupational support systems. All athletes were in direct contact with coaches or other athletes which helped dealing with lockdown stress (see di Fronso et al., 2022). This form of tangible (sending equipment to train at home) and informational support (video calling for skills technique corrections and support) from coaches was found to promote resilience and buffer the stress-burnout

relationship (Gupta & Sudhesh, 2019; Lu et al., 2016; Pété et al., 2022). Non-athletes relied on family and peer support to promote resilience behaviours (Mummery et al., 2004). Results also indicate that although athletes experienced a loss of sport, they retained support through sport and other means throughout the longitudinal term of the study compared to non-athletes. This supports the assertions of research which noted an active process of resilient adaptation using psychological skills learned through sport to adapt to changing routines, isolation (common during sport travel), emotional challenges and applying it to COVID-19 related difficulties (Andreato et al., 2020; Gupta & McCarthy, 2021; Stambulova et al., 2020). Non-athletes did not report this transfer of psychological skills to deal with the COVID-19 challenges. Therefore, the difference in emotional intensity between athletes and non-athletes (see Knowles et al., 2021) could be explained by the resilience protective factors which sport has built in athletes but was absent for non-athletes (Serafini et al., 2020). To this end, both populations could benefit from time-limited, realistic goal setting, which helps in planning during uncertainty (McCarthy & Gupta, 2022).

Implications and Future Directions

This study finds its significance as being one of the few studies to investigate the psychological impact of COVID-19 pandemic on a non-western population sample. The findings highlight the similarities and some major differences that arise from the context, including population differences and differences in coping styles. This adds on to the foundation for future research to build research designs with diverse samples aligned with cultural sport psychology principles and avoid "context evacuated methodology" (Eubank et al., 2017, p. 14).

The study supports existing studies in extending the evidence on the psychological impact of COVID-19 on athletes over a longitudinal 7-month period. Tracing the impact, and qualitatively exploring their experiences provides literature with the transitions in experience of athletes and non-athletes through the course of the pandemic. By doing so, the study validates Samuel et al. (2020)'s conceptualisation of COVID-19 as a "change event" (p.4). The results of our study also provide longitudinal evidence which can be used as a foundation for future research which seeks to understand other change-events such as injuries, deselection, transitional moments in careers and others. Additionally, the longitudinal change experience provided is also relevant to applied practice, which is not a single, one-time event, but rather interventions over a period of time (Andersen, 2000). Despite these strengths, this study has two notable limitations. Firstly, the sample is very limited, especially for the quantitative phase of the study. The small sample limits the external validity of the study in terms of the comparisons made as well as the generalisability to other sports. However, this limitation was partially compensated by the in-depth qualitative analysis of the participants' lived experiences. Secondly, the group comparison was manipulated to highlight the differences and identify the role of physical activity mitigating the psychological impact of an event.

Our results also outline the stark differences in the experience and psychological impact across athlete and non-athlete groups over the longitudinal period, highlighting a few of the psychological protective factors that sport and physical activity provide (see Landers & Arent, 2007; Rodriguez-Ayllon et al., 2019). This also provides support to the results of Uroh and Adewunmi (2021) which stated that strong athletic identity reduces predisposition to psychological distress to a degree in a Nigerian sample. Future research needs focus on understanding the mechanisms that differentiate athletes and non-athletes in order to contribute to evidence-informed interventions specific for sport populations in applied sport and exercise psychology (Gupta, in press; Gupta & Divekar, 2022; Tod et al., 2017; Winter & Collins, 2015).

Conclusion

This paper provides a mixed method, longitudinal evidence over a 7-month period on the psychological impact of COVID-19 pandemic across athlete and non-athlete groups in a non-western sample. By providing psychometric overview and a deep dive into the experiences, the evidence from this study extends Eubank et al. (2017) proposition that individuals must not be studied in isolation of the cultural and social context they operate within. Our findings highlight differences in the psychological impact across athlete and non-athlete groups. The findings of this pilot study form a fertile ground for future longitudinal investigations and research into differences between athletes and non-athletes to inform applied sport and exercise psychology interventions.

Acknowledgements

We would like to extend our gratitude and thanks to SD, RA, DS, GV, DV, RV and NC at Discovery Sport & Performance Lab for their feedback and comments on an earlier version of the manuscript. We would also like to AB, SD, JS and SF for their help with brainstorming and facilitating a flow of ideas.

Author Contributions

Both TM & SG: Conceptualisation, Methodology, Validation, Formal analysis, Visualisation, Supervision, Project Administration **TM**: Investigation, Data curation, Writing - Original Draft **SG**: Resources, Writing - Review & Editing.

Author's Note

Toral Mandrekar, Discovery: The Sport & Performance Lab, Mumbai, India.

Declaration of Conflicting Interests

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Funding

The author(s) received no financial support for the research, authorship, and/or publication of this article.

ORCID iD

Toral Mandrekar https://orcid.org/0000-0003-3730-1774

References

Alamdarloo, G. H., Shojaee, S., Asadmanesh, E., Shahin, H. S., Rangani, A., & Negahdarifard, S. (2019). A comparison of psychological well-being in athlete and non-athlete women. *Baltic Journal of Health and Physical Activity*, *11*(2), 109–116. https://doi.org/10.29359/BJHPA.11.2.11

Altena, E., Baglioni, C., Espie, C. A., Ellis, J., Gavriloff, D., Holzinger, B., Schlarb, A., Frase, L., Jernelöv, S., & Riemann, D. (2020). Dealing with sleep problems during home confinement due to the COVID-19 outbreak: Practical recommendations from a task force of the European CBT-I academy. *Journal of Sleep Research*, *29*(4), Article e13052. https://doi.org/10.1111/jsr.13052

Andersen, M. B. (2000). *Doing sport psychology*. Human Kinetics.

Andreato, L. V., Coimbra, D. R., & Andrade, A. (2020). Challenges to athletes during the home confinement caused by the COVID-19 pandemic. *Strength and Conditioning Journal*, *42*(3), 1–5. https://doi.org/10.1519%2FSSC.0000000000000563

Aravind, R., Gupta, S., & RA, G. S. K. (2022). A pilot study on emotional intelligence & its impact on pre-competitive anxiety: How does it operate in the non-WEIRD Indian sport context? *International Journal of Physiology, Nutrition and Physical Education*, *7*(1), 8–16. https://doi.org/10.22271/journalofsport.2022.v7.i1a.2407

Attride-Stirling, J. (2001). Thematic networks: An analytic tool for qualitative research. *Qualitative Research*, *1*(3), 385–405. https://doi.org/10.1177%2F146879410100100307

Bartholomew, K. J., Ntoumanis, N., Ryan, R. M., Bosch, J. A., & Thøgersen-Ntoumani, C. (2011). Self-determination theory and diminished functioning: The role of interpersonal control and psychological need thwarting. *Personality and Social Psychology Bulletin*, *37*(11), 1459–1473. https://doi.org/10.1177%2F0146167211413125

Begović, M. (2020). Effects of COVID-19 on society and sport a national response. *Managing Sport and Leisure*, *27*(3), 241–246. https://doi.org/10.1080/23750472.2020.1779115

Bostani, M., & Saiiari, A. (2011). Comparison emotional intelligence and mental health between athletic and non-athletic students [Special issue]. *Procedia-Social and Behavioral Sciences*, *30*, 2259–2263. https://doi.org/10.1016/j.sbspro.2011.10.441

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, *3*(2), 77–101. https://doi.org/10.1191/1478088706qp063oa

Braun, V., & Clarke, V. (2019). Reflecting on reflexive thematic analysis. *Qualitative Research in Sport, Exercise and Health*, *11*(4), 589–597. https://doi.org/10.1080/2159676X.2019.1628806

Braun, V., & Clarke, V. (2021). One size fits all? What counts as quality practice in (reflexive) thematic analysis? *Qualitative Research in Psychology*, *18*(3), 328–352. https://doi.org/10.1080/14780887.2020.1769238

Byers, T., Gormley, K. L., Winand, M., Anagnostopoulos, C., Richard, R., & Digennaro, S. (2021). COVID-19 impacts on sport governance and management: A global, critical

realist perspective. *Managing Sport and Leisure*, *27*(1–2), 99–107. https://doi.org/10.1080/23750472.2020.1867002

Canady, V. A. (2022). Impact of psychological distress on physical activity during COVID examined. *Mental Health Weekly*, *32*(2), 1–6. https://doi.org/10.1002/mhw.33066

Castellano-Tejedor, C., Torres-Serrano, M., & Cencerrado, A. (2022). Psychological impact in the time of COVID-19: A cross-sectional population survey study during confinement. *Journal of Health Psychology*, *27*(4), 974–989. https://doi.org/10.1177%2F1359105320985580

Cavalera, C. (2020). COVID-19 psychological implications: The role of shame and guilt. *Frontiers in Psychology*, *11*, 2727. https://doi.org/10.3389/fpsyg.2020.571828

Creswell, J. W. (2013). *Qualitative inquiry and research design choosing among five approaches* (3rd Ed). Sage Publications.

Daly, M., & Robinson, E. (2021). Psychological distress and adaptation to the COVID-19 crisis in the United States. *Journal of Psychiatric Research*, *136*, 603–609. https://doi.org/10.1016/j.jpsychires.2020.10.035

Dekel, S., Hankin, I. T., Pratt, J. A., Hackler, D. R., & Lanman, O. N. (2016). Posttraumatic growth in trauma recollections of 9/11 survivors: A narrative approach. *Journal of Loss and Trauma*, *21*(4), 315–324. https://doi.org/10.1080/15325024.2015.1108791

di Fronso, S., Costa, S., Montesano, C., Di Gruttola, F., Ciofi, E. G., Morgilli, L., Robazza, C., & Bertollo, M. (2022). The effects of COVID-19 pandemic on perceived stress and psychobiosocial states in Italian athletes. *International Journal of Sport and Exercise Psychology*, *20*(1), 79–91. https://doi.org/10.1080/1612197X.2020.1802612

Edwards, C., & Thornton, J. S. (2020). *Athlete mental health and mental illness in the era of COVID-19: Shifting focus with a new reality*. British Journal of Sports Medicine. https://blogs.bmj.com/bjsm/2020/03/25/athlete-mental-health-and-mental-illness-in-the-era-of-covid-19-shifting-focus-a-new-reality/.

Eubank, M. R., Nesti, M. S., & Littlewood, M. A. (2017). A culturally informed approach to mental toughness development in high performance sport. *International Journal of Sport Psychology*, *48*(3), 206–222. https://doi.org/10.7352/IJSP.2017.48.206

Fancourt, D., Steptoe, A., & Bu, F. (2021). Trajectories of anxiety and depressive symptoms during enforced isolation due to COVID-19 in England: A longitudinal observational study. *The Lancet Psychiatry*, *8*(2), 141–149. https://doi.org/10.1016/S2215-0366(20)30482-X

Garfin, D. R. (2020). Technology as a coping tool during the COVID-19 pandemic: Implications and recommendations. *Stress and Health*, *36*(4), 555–559. https://doi.org/10.1002/smi.2975

Gopal, A., Sharma, A. J., & Subramanyam, M. A. (2020). Dynamics of psychological responses to COVID-19 in India: A longitudinal study. *PloS one*, *15*(10), Article e0240650. https://doi.org/10.1371/journal.pone.0240650

Goyal, K., Chauhan, P., Chhikara, K., Gupta, P., & Singh, M. P. (2020). Fear of COVID 2019: First suicidal case in India!. *Asian Journal of Psychiatry*, *49*. https://doi.org/10.1016/j.ajp.2020.101989

Gupta, S. (in press). Reflect In and Speak Out: An autoethnographic study on Race and the embedded Sport Psychology Practitioner. *Case studies in sport and exercise psychology, Special Issue on Making Good Trouble*.

Gupta, S., & Divekar, S. (2022). A symmetry or asymmetry: Reflecting upon realities of cultural practice in sport psychology. *Sport and Exercise Psychology Review*, *17*(1), 60–72.

Gupta, S., & McCarthy, P. J. (2021). Sporting resilience during COVID-19: What is the nature of this adversity and how are competitive elite athletes adapting? [Special issue]. *Frontiers in Psychology*, *12*, 374. https://doi.org/10.3389/fpsyg.2021.611261

Gupta, S., & Sudhesh, N. T. (2019). Grit, self-regulation and resilience among college football players: A pilot study. *International Journal of Physiology, Nutrition and Physical Education*, *4*(1), 843–848.

Hamza, C. A., Ewing, L., Heath, N. L., & Goldstein, A. L. (2021). When social isolation is nothing new: A longitudinal study on psychological distress during COVID-19 among university students with and without preexisting mental health concerns. *Canadian Psychology/ Psychologie Canadienne*, *62*(1), 20–30. https://doi.org/10.1037/cap0000255

Ho, C. S., Chee, C. Y., & Ho, R. C. (2020). Mental health strategies to combat the psychological impact of COVID-19 beyond paranoia and panic. *Annals of the Academy of Medicine, Singapore*, *49*(1), 155–160. https://doi.org/10.47102/annals-acadmedsg.202043

Janz, T. (1982). Initial comparisons of patterned behavior description interviews versus unstructured interviews. *Journal of Applied Psychology*, *67*(5), 577–580. https://doi.org/10.1037/0021-9010.67.5.577

Jewett, R., Kerr, G., & Tamminen, K. (2019). University sport retirement and athlete mental health: A narrative analysis. *Qualitative Research in Sport, Exercise and Health*, *11*(3), 416–433. https://doi.org/10.1080/2159676X.2018.1506497

Joy, E., Kussman, A., & Nattiv, A. (2016). 2016 Update on eating disorders in athletes: A comprehensive narrative review with a focus on clinical assessment and management. *British Journal of Sports Medicine*, *50*(3), 154–162. https://doi.org/10.1136/bjsports-2015-095735

Kar, S. K., Yasir Arafat, S. M., Kabir, R., Sharma, P., & Saxena, S. K. (2020). Coping with mental health challenges during COVID-19. In *Coronavirus disease 2019 (COVID-19)* (pp. 199–213). Springer.

Khosravi, M. (2020). Perceived risk of COVID-19 pandemic: The role of public worry and trust. *Electronic Journal of General Medicine*, *17*(4). https://doi.org/10.29333/ejgm/7856

Knowles, C. R., Breslin, G., Shannon, S., & Prentice, G. (2021). Comparing mental health of athletes and non-athletes as they emerge from a COVID-19 pandemic lockdown. *Frontiers in Sports and Active Living*, *3*, 125. https://doi.org/10.3389/fspor.2021.612532

Landers, D. M., & Arent, S. M. (2007). Physical activity and mental health. In G. Tenenbaum, & R. C. Eklund (Eds.), *Handbook of sport psychology* (pp. 469–491). John Wiley & Sons, Inc.

Lazarus, R. S., & Folkman, S. (1984). *Stress, appraisal, and coping*. Springer Publishing Company.

Lee, C. T., Kanji, R., Wang, A. H., Mamuji, A., Rozdilsky, J., & Chu, T. (2021). Cultural contexts during a pandemic: A qualitative description of cultural factors that shape protective behaviours in the Chinese-Canadian community. *BMC Public Health*, *21*(1), 1–11. https://doi.org/10.1186/s12889-021-11928-w

Li, S., Wang, Y., Xue, J., Zhao, N., & Zhu, T. (2021). The impact of COVID-19 epidemic declaration on psychological consequences: A study on active Weibo users. *International Journal of Environmental Research and Public Health*, *17*(6), 2032. https://doi.org/10.3390/ijerph17062032

Liu, N., Zhang, F., Wei, C., Jia, Y., Shang, Z., Sun, L., Wu, L., Sun, Z., Zhou, Y., Wang, Y., & Liu, W. (2020). Prevalence and predictors of PTSS during COVID-19 outbreak in China hardest-hit areas: Gender differences matter [Special issue]. *Psychiatry Research*, *287*, 112921. https://doi.org/10.1016/j.psychres.2020.112921

López-Gutiérrez, C. J., Benet, P. V., Rosado, J. D., & Castro-Sánchez, M. (2021). Psychological discomfort and stress during confinement due to the COVID-19 pandemic. Comparative study between athletes and non-athletes. *Ibero-American Journal of Exercise and Sports Psychology*, *16*(4), 1–3.

Lu, F. J., Lee, W. P., Chang, Y. K., Chou, C. C., Hsu, Y. W., Lin, J. H., & Gill, D. L. (2016). Interaction of athletes' resilience and coaches' social support on the stress-burnout relationship: A conjunctive moderation perspective. *Psychology of Sport and Exercise*, *22*, 202–209. https://doi.org/10.1016/j.psychsport.2015.08.005

Mammen, G., & Faulkner, G. (2013). Physical activity and the prevention of depression: A systematic review of prospective studies. *American Journal of Preventive Medicine*, *45*(5), 649–657. https://doi.org/10.1016/j.amepre.2013.08.001

Manchia, M., Gathier, A. W., Yapici-Eser, H., Schmidt, M. V., de Quervain, D., van Amelsvoort, T., Bisson, J. I., Cryan, J. F., Howes, O. D., Pinto, L., van der Wee, N. J., Domschke, K., Branchi, I., & Vinkers, C. H. (2022). The impact of the prolonged COVID-19 pandemic on stress resilience and mental health: A critical review across waves. *European Neuropsychopharmacology*, *55*, 22–83. https://doi.org/10.1016/j.euroneuro.2021.10.864

Mann, R. H., Clift, B. C., Boykoff, J., & Bekker, S. (2020). Athletes as community; athletes in community: COVID-19, sporting mega-events and athlete health protection. *British Journal of Sports Medicine*, *54*(18), 1071–1072. http://dx.doi.org/10.1136/bjsports-2020-102433

Marcin, J. P., Shaikh, U., & Steinhorn, R. H. (2016). Addressing health disparities in rural communities using telehealth. *Pediatric Research*, *79*(1), 169–176. https://doi.org/10.1038/pr.2015.192

Mayan, M. J. (2009). *Essentials of qualitative inquiry*. Left Coast Press.

McCarthy, P. J., & Gupta, S. (2022). Set goals to get goals: Sowing seeds for success in sports. *Frontiers for Young Minds*, *10*. https://doi.org/10.3389/frym.2022.684422

McCloskey, B., Zumla, A., Ippolito, G., Blumberg, L., Arbon, P., Cicero, A., Endericks, T., Lim, P. L., & Borodina, M. (2020). Mass gathering events and reducing further global spread of COVID-19: A political and public health dilemma. *The Lancet*, *395*(10230), 1096–1099. https://doi.org/10.1016/S0140-6736(20)30681-4

Mummery, W. K., Schofield, G., & Perry, C. (2004). Bouncing back: The role of coping style, social support and self-concept in resilience of sport performance. *Athletic Insight: The Online Journal of Sport Psychology*, *6*(3), 1–15.

Naslund, J. A., Aschbrenner, K. A., Marsch, L. A., & Bartels, S. J. (2016). The future of mental health care: Peer-to-peer support and social media. *Epidemiology and Psychiatric Sciences*, *25*(2), 113–122. https://doi.org/10.1017/S2045796015001067

Nicholls, A. R., Taylor, N. J., Carroll, S., & Perry, J. L. (2016). The development of a new sport-specific classification of coping and a meta-analysis of the relationship between different coping strategies and moderators on sporting outcomes. *Frontiers in Psychology*, *7*, 1674. https://doi.org/10.3389/fpsyg.2016.01674

Norris, F. H., Friedman, M. J., Watson, P. J., Byrne, C. M., Diaz, E., & Kaniasty, K. (2002). 60,000 Disaster victims speak: Part I. An empirical review of the empirical literature, 1981–2001. *Psychiatry: Interpersonal and Biological Processes*, *65*(3), 207–239. https://doi.org/10.1521/psyc.65.3.207.20173

Park, S., Lavallee, D., & Tod, D. (2013). Athletes' career transition out of sport: A systematic review. *International Review of Sport and Exercise Psychology*, *6*(1), 22–53. https://doi.org/10.1080/1750984X.2012.687053

Parnell, D., Widdop, P., Bond, A., & Wilson, R. (2020). COVID-19, networks and sport. *Managing Sport and Leisure*, *27*(1-2), 72–78. https://doi.org/10.1080/23750472.2020.1750100

Patton, M. Q. (1990). *Qualitative evaluation and research methods* (2nd ed.). Sage Publications, Inc.

Pété, E., Leprince, C., Lienhart, N., & Doron, J. (2022). Dealing with the impact of the COVID-19 outbreak: Are some athletes' coping profiles more adaptive than others?

European Journal of Sport Science, *22*(2), 237–247. https://doi.org/10.1080/17461391.2021.1873422

Pillay, L., van Rensburg, D. C. C. J., van Rensburg, A. J., Ramagole, D. A., Holtzhausen, L., Dijkstra, H. P., & Cronje, T. (2020). Nowhere to hide: The significant impact of coronavirus disease 2019 (COVID-19) measures on elite and semi-elite South African athletes. *Journal of Science and Medicine in Sport*, *23*(7), 670–679. https://doi.org/10.1016/j.jsams.2020.05.016

Pineda-Espejel, H. A., López-Walle, J., & Tomás, I. (2015). Situational and dispositional factors as predictors of pre-competitive anxiety and self-confidence in college athletes. *Cuadernos de Psicología del Deporte*, *15*(2), 55–69. https://doi.org/10.4321/S1578-84232015000200007

Polizzi, C., Lynn, S. J., & Perry, A. (2020). Stress and coping in the time of COVID-19: Pathways to resilience and recovery. *Clinical Neuropsychiatry*, *17*(2), 59–62. https://doi.org/10.36131%2FCN20200204

Prati, G., & Mancini, A. D. (2021). The psychological impact of COVID-19 pandemic lockdowns: A review and meta-analysis of longitudinal studies and natural experiments. *Psychological Medicine*, *51*(2), 201–211. https://doi.org/10.1017/S0033291721000015

Reardon, C. L., Bindra, A., Blauwet, C., Budgett, R., Campriani, N., Currie, A., Gouttebarge, V., McDuff, D., Mountjoy, M., Purcell, R., Putukian, M., Rice, S., & Hainline, B. (2021). Mental health management of elite athletes during COVID-19: A narrative review and recommendations. *British Journal of Sports Medicine*, *55*(11), 608–615. https://doi.org/10.1136/bjsports-2020-102884

Rodriguez-Ayllon, M., Cadenas-Sánchez, C., Estévez-López, F., Muñoz, N. E., Mora-Gonzalez, J., Migueles, J. H., Molina-García, P., Henriksson, H., Mena-Molina, A., Martínez-Vizcaíno, V., Catena, A., Löf, M., Erickson, K. I., Lubans, D. R., Ortega, F. B., & Esteban-Cornejo, I. (2019). Role of physical activity and sedentary behavior in the mental health of preschoolers, children and adolescents: A systematic review and meta-analysis. *Sports Medicine*, *49*(9), 1383–1410. https://doi.org/10.1007/s40279-019-01099-5

Rogers, R. W. (1975). A protection motivation theory of fear appeals and attitude change1. *The Journal of Psychology*, *91*(1), 93–114. https://doi.org/10.1080/00223980.1975.9915803

Salsman, J. M., Schalet, B. D., Andrykowski, M. A., & Cella, D. (2015). The impact of events scale: A comparison of frequency versus severity approaches to measuring cancer-specific distress. *Psycho-Oncology*, *24*(12), 1738–1745. https://doi.org/10.1002/pon.3784

Samuel, R. D., Tenenbaum, G., & Galily, Y. (2020). The 2020 coronavirus pandemic as a change-event in sport performers' careers: Conceptual and applied practice considerations. *Frontiers in Psychology*, *11*. https://doi.org/10.3389/fpsyg.2020.567966

Saunders, B., Kitzinger, J., & Kitzinger, C. (2015). Anonymising interview data: Challenges and compromise in practice. *Qualitative Research*, *15*(5), 616–632. https://doi.org/10.1177%2F1468794114550439

Schinke, R., Papaioannou, A., Henriksen, K., Si, G., Zhang, L., & Haberl, P. (2020). Sport psychology services to high performance athletes during COVID-19. *International Journal of Sport and Exercise Psychology*, *18*(3), 622–639. https://doi.org/10.1080/1612197X.2020.1754616

Schinke, R. J., Stambulova, N. B., Si, G., & Moore, Z. (2018). International society of sport psychology position stand: Athletes' mental health, performance, and development. *International Journal of Sport and Exercise Psychology*, *16*(6), 622–639. https://doi.org/10.1080/1612197X.2017.1295557

Schuch, F. B., Stubbs, B., Meyer, J., Heissel, A., Zech, P., Vancampfort, D., Rosenbaum, S., Deenik, J., Firth, J., Ward, P. B., Carvalho, A. F., & Hiles, S. A. (2019). Physical activity

protects from incident anxiety: A meta-analysis of prospective cohort studies. *Depression and Anxiety*, *36*(9), 846–858. https://doi.org/10.1002/da.22915

Seabrook, E. M., Kern, M. L., & Rickard, N. S. (2016). Social networking sites, depression, and anxiety: A systematic review. *JMIR Mental Health*, *3*(4), 59–77. https://doi.org/10.2196/mental.5842

Şenışık, S., Denerel, N., Köyağasıoğlu, O., & Tunç, S. (2021). The effect of isolation on athletes' mental health during the COVID-19 pandemic. *The Physician and Sportsmedicine*, *49*(2), 187–193. https://doi.org/10.1080/00913847.2020.1807297

Serafini, G., Parmigiani, B., Amerio, A., Aguglia, A., Sher, L., & Amore, M. (2020). The psychological impact of COVID-19 on the mental health in the general population. *QJM: An International Journal of Medicine*, *113*(8), 531–537. https://doi.org/10.1093/qjmed/hcaa201

Smith, B., & Sparkes, A. C. (2005). Men, sport, spinal cord injury, and narratives of hope. *Social Science & Medicine*, *61*(5), 1095–1105. https://doi.org/10.1016/j.socscimed.2005.01.011

Stambulova, N. B., Schinke, R. J., Lavallee, D., & Wylleman, P. (2020). The COVID-19 pandemic and Olympic/paralympic athletes' developmental challenges and possibilities in times of a global crisis-transition. *International Journal of Sport and Exercise Psychology*, *20*(1), 92–101. https://doi.org/10.1080/1612197X.2020.1810865

Sun, L., Sun, Z., Wu, L., Zhu, Z., Zhang, F., Shang, Z., Jia, Y., Gu, J., Zhou, Y., Wang, Y., Liu, N., & Liu, W. (2021). Prevalence and risk factors for acute posttraumatic stress disorder during the COVID-19 outbreak. *Journal of Affective Disorders*, *283*, 123–129. https://doi.org/10.1016/j.jad.2021.01.050

Tayech, A., Mejri, M. A., Makhlouf, I., Mathlouthi, A., Behm, D. G., & Chaouachi, A. (2020). Second wave of COVID-19 global pandemic and ahletes' confinement: Recommendations to better manage and optimize the modified lifestyle. *International Journal of Environmental Research and Public Health*, *17*(22), 8385. https://doi.org/10.3390/ijerph17228385

Tod, D., Hutter, R. V., & Eubank, M. (2017). Professional development for sport psychology practice [Special issue]. *Current Opinion in Psychology*, *16*, 134–137. https://doi.org/10.1016/j.copsyc.2017.05.007

Tsai, H. H., Tsai, Y. F., Wang, H. H., Chang, Y. C., & Chu, H. H. (2010). Videoconference program enhances social support, loneliness, and depressive status of elderly nursing home residents. *Aging and Mental Health*, *14*(8), 947–954. https://doi.org/10.1080/13607863.2010.501057

Uroh, C. C., & Adewunmi, C. M. (2021). Psychological impact of the COVID-19 pandemic on athletes. *Frontiers in Sports and Active Living*, *3*, 78. https://doi.org/10.3389/fspor.2021.603415

Wang, C., Pan, R., Wan, X., Tan, Y., Xu, L., Ho, C. S., & Ho, R. C. (2020). Immediate psychological responses and associated factors during the initial stage of the 2019 coronavirus disease (COVID-19) epidemic among the general population in China. *International Journal of Environmental Research and Public Health*, *17*(5), 1729. https://doi.org/10.3390/ijerph17051729

Weiss, D. S. (2007). The impact of event scale: Revised. In J. P. Wilson, & C. S. Tang (Eds.), *Cross-cultural assessment of psychological trauma and PTSD. International and cultural psychology series* (pp. 219–238). Springer. https://doi.org/10.1007/978-0-387-70990-1_10.

Weiss, D. S., & Marmar, C. R. (1997). The impact of event scale – revised. In J. P. Wilson, & T. M. Keane (Eds.), *Assessing psychological trauma and PTSD* (pp. 399–411). Guilford Press.

Winter, S., & Collins, D. (2015). Why do we do, what we do? *Journal of Applied Sport Psychology*, *27*(1), 35–51. https://doi.org/10.1080/10413200.2014.941511

Wright, L. J., Williams, S. E., & Veldhuijzen van Zanten, J. J. (2021). Physical activity protects against the negative impact of coronavirus fear on adolescent mental health and well-being

during the COVID-19 pandemic. *Frontiers in Psychology*, *12*, 737. https://doi.org/10.3389/fpsyg.2021.580511

Xiong, J., Lipsitz, O., Nasri, F., Lui, L. M., Gill, H., Phan, L., Chen-Li, D., Iacobucci, M., Ho, R., Majeed, A., & McIntyre, R. S. (2020). Impact of COVID-19 pandemic on mental health in the general population: A systematic review [Special issue]. *Journal of Affective Disorders*, *277*, 55–64. https://doi.org/10.1016/j.jad.2020.08.001

Zawbaa, H. M., Osama, H., El-Gendy, A., Saeed, H., Harb, H. S., Madney, Y. M., Abdelrahman, M., Mohsen, M., Ali, A. M., Nicola, M., Elgendy, M. O., Ibrahim, I. A., & Abdelrahim, M. E. (2022). Effect of mutation and vaccination on spread, severity, and mortality of COVID-19 disease. *Journal of Medical Virology*, *94*(1), 197–204. https://doi.org/10.1002/jmv.27293

Author Biographies

Toral Mandrekar is studying for a MSc in Sport and Exercise Psychology (commencing September 2022) from Brunel University. She currently holds a position as a junior researcher at Discovery Sport & Performance Lab. She is interested in exploring and understanding the role that athletic identity plays on the performance and well-being of an athlete. She is driven by her passion to create a psychological scaffolding for athletes, who can use it to safely reach for their optimal performance.

Sahen Gupta is a practicing Sport & Performance Psychologist (BPS-QSEP) and holds a position of Lecturer in Applied Sport and Exercise Psychology at University of Portsmouth, UK. His research focuses on developing resilience through psychological skills training in high-performance individuals and environments. Fundamentally, he translates this into applied work to help develop resilience and make athletes psychological fit to overcome sporting adversities such as loss, injury, transitions to maintain mental health and optimal performance. He specializes in international elite cricket and tennis. Having started his scientific research at age 18, he firmly believes in the importance of spreading scientific knowledge to everyone, especially pre-university students with scientific curiosity. He has published multiple peer-reviewed articles, edited books, and is currently writing two books. He is also the founder of Discovery Sport & Performance Lab.