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ORIGINAL RESEARCH

Comparative Investigation of Differential Mood Responses among Elite, Non-Elite, and Non-Athletes in Total Lockdown

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Abstract

The onset of the COVID-19 global health crisis, marked by stringent restrictions on training routines and sudden cancellations of competitive events, precipitated abrupt and radical transformations within the sporting landscape. The emergency alert prompted governments worldwide to enforce various lockdown measures to curb the escalation of the viral outbreak. Recognising the potential psychological repercussions of these circumstances, a rapid assessment of mood states as well-being indicators was conducted during the initial months of the lockdown in the Philippines. A cross-sectional study using Tilly's (1984) variation-finding approach was undertaken to distinguish mood profiles between athletes of different competitive tiers and between athletes and non-athletes. Employing the 16-item version of the Profile of Mood States (POMS-16), mood responses were collected and compared across 705 elite athletes, 1,702 non-elite athletes, and 1,246 non-athletes. Analysis of mean patterns revealed that elite athletes consistently reported greater levels of dejection/anxiety, fatigue, irritability, vigour, and overall mood disturbance than did their non-elite and non-athlete counterparts. The findings affirm the substantial disparities in mood states between athletes of different competitive tiers and between athletes and non-athletes during the pandemic. Nonetheless, despite the elevated scores for negative mood responses, vigour emerged as consistently the highest among all mood responses across all three groups. The results are discussed considering the unique characteristics of elite and non-elite athletes and the protective role of vigour in mental well-being during adversity. By acknowledging athletes' distinct psychological reactions to circumstances hindering competitive sport engagement, this study contributes to understanding how disruptive health crises could affect athletes' well-being, potentially informing the development of targeted support programmes for athletes confronting similar challenges.

Keywords:
global health, mental health, moods, pandemic, psychological well-being

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Introduction

The emergence of the COVID-19 pandemic caused a worldwide health emergency with extensive ramifications, including threats to the psychological health and wellness of high-performance athletes. The intergovernmental lockdown measures to prevent the virus from spreading resulted in sweeping changes in the realm of sport, with

athletes forbidden to train, travel, or compete over a prolonged time. During these periods of halted sports activities, athletes have reported emotional distress and psychological challenges resulting from diminished exercise and training, separation from their sports teams, detachment from the broader sport network, suboptimal coach-athlete relationship, and decreased fanbase interaction and media coverage (Carnevale Pellino et al., 2022; Leguizamo et al., 2021; Örencik et al., 2024; Shukla et al., 2023).

The extant literature has elucidated the psychological repercussions exacted by the COVID-19 pandemic on the general populace, revealing increased levels of stress, anxiety and depressive symptomatology (Brooks et al., 2020; Cenat et al., 2022; Clemente-Suárez et al., 2020; Holmes et al., 2020; Nikolaidis et al., 2021; Pfefferbaum & North, 2020; Rajkumar, 2020; Sun et al., 2023; Torales et al., 2020; Violant-Holz, 2020; Xiong et al., 2020). While these studies assert the widespread psychosocial repercussions of the pandemic, there is still a lacuna in the current understanding regarding how these predicaments affect athletes, a demographic characterised by unique stressors and expectations (Arnold & Fletcher, 2012; Cutler & Dwyer, 2020; Foskett & Longstaff, 2018; Gouttebarge et al., 2015; Kegelaers et al., 2022; Reardon et al., 2019; Schaal et al., 2011; Schinke et al., 2017; Stambulova et al., 2024; Stambulova & Wylleman, 2019).

A systematic review of how the pandemic impacted athletes' mental and emotional well-being (Jia et al., 2023) confirmed that their mental health took a significant hit during the global health crisis. They found that athletes faced heightened levels of depression, anxiety, and stress, just like everyone else. However, athletes had to deal with unique career challenges due to the sudden and extended disruptions in their training schedules and competitions. Such disruptions in sport activities diminished motivation and satisfaction with their daily training regimens, particularly under severely constrained conditions, limited facilities, and restricted in-person interactions with coaches and teammates. Additionally, their findings emphasised the importance of considering competitive levels as a risk factor for athletes. Although there were variations in how the studies in the systematic review categorised athletes based on their competitive tiers (with some categorising athletes into low-level and high-level groups and others including a third category for mid-level athletes), their review highlighted that, compared to those who belong to lower or higher tiers, mid-level athletes were more susceptible to experiencing mental health challenges during the pandemic.

In explaining this situation, Jia et al. (2023) affirmed the claims of Fiorilli et al. (2021), suggesting that mid-level athletes face unique mental health challenges given their limited years of competitive experience, fewer opportunities to transition careers compared to low-level athletes, and lack of financial security or the option to retire enjoyed by high-level athletes. As such, the review team advocated for a nuanced examination of the level of competitive play in relation to mental health during the pandemic, emphasising a comparison based on relative rather than absolute terms. For a more consistent comparison, they recommended contrasting the psychological experiences of elite versus non-elite athletes rather than comparing elite athletes with non-athletes. In this vein, the current study investigated the psychological well-being of elite athletes, non-elite athletes, and non-athletes during the COVID-19 lockdown by comparing the mood responses of athletes from different competitive levels and of athletes with those of non-athletes.

This study adopted the classification system for the eliteness of athletic samples in

research generated by the systematic review of Swann and colleagues (2015). Although their classification further differentiates sport expertise into 'semi-elite,' 'competitive elite,' 'successful elite,' and 'world-class elite,' the current study uses the term 'non-elite' for the 'semi-elite' category and 'elite' to refer to any of the other three elite categories. Elite athletes are distinguished by their engagement in competing nationally or internationally at the highest levels of their sport. They have typically achieved significant success, such as winning major championships, setting records, or representing their country in high-level international competitions. Elite athletes often dedicate their lives to training and competing, investing substantial time and effort to achieve and maintain excellence in their sport. The current study categorises national athletes representing the Philippines in international competitions in this elite competitive tier. On the other hand, non-elite athletes compete at a higher level than recreational or amateur athletes. They may demonstrate exceptional skill in the sport, possess dedication to regular training, and aspire to reach elite status through continued development and success in their sport. However, their competitive performance is usually university-based, involving inter-collegiate, regional, or national competitions. In the present research, student-athletes competing at the largest inter-collegiate sport leagues in the Philippines are categorised in this non-elite competitive tier.

Elite athletes facing higher performance expectations and rigorous scrutiny (Mehrsafar et al., 2021; Reardon et al., 2020; Rice et al., 2016) may experience the psychological impacts of the pandemic distinctively compared to their non-elite and non-athlete counterparts. However, non-elite collegiate athletes have their unique challenges because they juggle academic and sport commitments, a balancing act that may lead to a different stress profile (Cutler & Dwyer, 2020; Stambulova et al., 2024; Stambulova & Wylleman, 2019). Although mental health is increasingly recognised as a crucial determinant of both athletic performance and overall well-being (Dithurbide et al., 2022; Foskett & Longstaff, 2018; Schaal et al., 2011; Schinke et al., 2017), investigations focusing on the comparison of mental health and well-being between these competitive tiers of athletes during the pandemic remain scarce (Taheri et al., 2023).

The necessity for such targeted research becomes even more apparent when considering how athletes' mental health affects their performance, coping ability, resilience, and overall quality of life, particularly under adverse conditions (Hussain et al., 2023; Pitacho et al., 2023). However, despite the scholarly attention given to the psychological impact of the COVID-19 pandemic on athletes, the nuanced differences in psychological experiences between sport participants of varying competitive levels—particularly elite and non-elite athletes—remain insufficiently explored (Uroh & Adewunmi, 2021). The existing body of literature has predominantly focused on the aggregate psychological effects of the pandemic on athletes as a monolithic group, with limited consideration of the stratification within this population (Clemente-Suárez et al., 2020).

Addressing this oversight is essential, given the divergent stressors, expectations, and support systems accessible to elite versus non-elite athletes. Such distinctions are likely to engender varying psychological outcomes, a hypothesis that warrants further investigation. Moreover, the absence of comparative studies on the differential psychological responses to the pandemic involving elite and non-elite athletes from non-Western societies represents a conspicuous gap in the sports psychology

literature. Research in psychology and its sub-disciplines continues to be dominated by samples generated almost exclusively from Western, Educated, Industrial, Rich, and Democratic (WEIRD) societies, assuming them to be representative of the human population and upholding their experiences and views as the standard of human psychology and behaviour (Henrich et al., 2010b; Judd et al., 2012; Lamarche et al., 2023). This study supports the promotion of investigations involving participants and cultural contexts beyond WEIRD populations and settings that are disproportionately underrepresented in mainstream psychological research.

This study notably features the psychological well-being of elite athletes in the Philippines, contextualised in a lower middle-income country that reportedly implemented one of the most stringent and extended COVID-19 restrictions worldwide (Mathieu et al., 2020; See, 2021). A task force led by the armed forces and police was formed to implement the Enhanced Community Quarantine (ECQ) throughout the island of Luzon, including Metro Manila, from March 17 until May 15, 2020. These measures remained in regions with a moderate to high risk of infection until May 31, 2020. Curfews and regular checkpoints were established throughout the island of Luzon, including Metro Manila. A pass system was enforced to restrict movement to essential workers and individuals providing essential goods and services such as groceries, medicine, or healthcare. In effect, there was a total lockdown. The punitive approach proved to be unparalleled as international agencies expressed alarm over the militarised strategy to curtail the spread of COVID-19, with presidential orders to arrest, detain, or shoot to kill those who disobey the regulations (Amnesty International, 2020; International Development Law Organization, 2020).

In compliance with the government directives forbidding mass gatherings (ABS-CBN, 2020), the Philippine Sports Commission (PSC) announced the immediate cancellation of all sporting events for the remainder of the year. Participation in international competitions was likewise suspended indefinitely. Athletes were immediately advised to return to their hometowns and provinces as dormitories and facilities for national athletes were shut down. Driven by a deep concern for the mental health and well-being of the athletes amid these alarming circumstances, the first author, a sport psychologist, initiated this research project with the endorsement of the PSC leadership and the executive boards of the largest collegiate sport leagues in the country. The research project entailed conducting a large-scale survey followed by interviews with several athletes on their well-being during this period. This paper exclusively focuses on analysing the mood responses derived from the survey phase of the project. Additionally, findings from a parallel study on the mood responses of Filipino adults during the pandemic are included for comparative purposes. Through a methodical comparative analysis of the mood states of these distinct athlete cohorts, vis à vis non-athletes, this investigation hypothesises significant differences in mood responses between elite and non-elite athletes, as well as between athletes and non-athletes, during the Philippine lockdown approach to the COVID-19 pandemic.

‘Mood’ is conceptualised as a pervasive set of sentiments or a general disposition, shaping emotional responses and influencing nearly all aspects of a person's behaviour in the external world (American Psychological Association, 2018; Sekhon & Gupta, 2024). It is commonly viewed as lasting longer and being less intense than emotions, often without a clear, identifiable object or trigger (Beedie et al., 2005). For instance, anxiety

may arise when considering a pending deadline or an upcoming event. However, an anxious mood state is more enduring, with someone feeling constantly tense, worried, or on edge, even without any immediate threat. Mood states and mental health are intricately linked, as mood changes can be indicative of various mental health conditions and vice versa (American Psychiatric Association, 2013; Gross et al., 2017; Patel et al., 2015). As such, mood state assessment as a recognised marker of psychological well-being is utilised across populations (Terry et al., 2021).

Mental health is a complex construct influenced by interrelated biological, psychological, social, and environmental factors, rendering it challenging to study using just a few measures. However, examining mood states provides a valuable starting point for exploring mental well-being. Mood states, as observable indicators of an individual's emotional state at a specific time, offer an opening to understanding well-being by providing insights into how individuals react to different situations. Thus, moods are typically checked for early detection of psychological concerns such as anxiety, stress, or depression, enabling timely and targeted intervention and support (Drake et al., 2013; Furukawa, 2010; van Genugten et al., 2021). In the field of sport, mood states are extensively studied as psychological correlates of athletic output and achievement (Beedie et al., 2008; Lockbaum et al., 2021), preliminary indication of overtraining (Grant et al., 2012; Nederhof et al., 2008), a predictor of injury (Appaneal et al., 2009; Galambos et al., 2005; Kleinert, 2007; Van Wijk & Fourie, 2017), and a gauge of psychological well-being (Parsons-Smith et al., 2022; Terry & Parsons-Smith, 2021). This research focused on evaluating athletes' mood states across competitive categories to understand their overall emotional outlook. This assessment was conducted in the context of a total government lockdown, when their training routines and competition schedules were abruptly halted due to the global health crisis, with no certainty of when they might resume their sport careers.

Methodology

Study Design

A cross-sectional study using Tilly's (1984) variation-finding approach was conducted to test the hypothesis that there are statistically discernible differences in mood states between Filipino elite athletes, non-elite athletes, and non-athletes during the pandemic. This strategy focused on pinpointing distinctions to understand the changes in the manifestation or degree of an observation. Online data collection was conducted to allow broad participation despite pandemic restrictions on in-person interaction. By merging this method with a large-N approach to enhance the generalisability of the findings, the study endeavoured to identify trends in mood states among athletes from different competitive tiers compared to non-athletes.

Instrument

Mood was assessed using a shortened Profile of Mood Scale (POMS) (McNair et al., 1971). The original version of the POMS has an inventory of 65 items, capturing diverse mood states clustered into six subscales of tension-anxiety, depression-dejection, anger-hostility, fatigue-inertia, confusion-bewilderment, and vigour-activity. The respondents rated each item based on their recent experiences, with choices ranging from "not at all," "a little," "moderately," "quite a lot," to "extremely." The POMS is recognised for its comprehensive evaluation of well-being across various demographics, including the general populace (Morfeld et al., 2007; Yeun & Shin-Park, 2006), those with chronic ailments (Cella et al., 1987;

Dilorenzo et al., 1999; Guadagnolim & Mor, 1989), psychiatric patients (Lavey et al., 2005; Norcross et al., 1984), and specialised cohorts such as athletes and exercisers (Berger & Motl, 2000; LeUnes & Burger, 2000; Lochbaum et al., 2021; Terry & Lane, 2000). It has also been reported to have acceptable internal consistency in collegiate (McGurgan et al., 2020; Shichiri et al., 2016; Yamanaka et al., 2021) and athletic samples (Selmi et al., 2023; Saïdi, 2020).

Several shorter iterations of the POMS were validated over time. The 16-item concise version developed by Petrowski et al. (2020), which was rigorously tested with a large national and representative sample from Germany, is utilised in this study. Analysis of these 16 items yielded subscores for "depression/anxiety ($\bar{X}$ = 3.1)," "vigour ($\bar{X}$ = 12.89)," "fatigue ($\bar{X}$ = 5)," and "irritability ($\bar{X}$ = 6.38)." In rapid assessments of mood states where an instrument's brevity is desirable, using the POMS-16 is highly recommended.

In the same year the POMS-16 was published, Brand et al. (2020) engaged the International Research Group (IRG) on COVID-19 and Exercise in a large-scale investigation involving 13,696 respondents from 18 countries, including the Philippines. The first author of the current study, a member of the IRG, participated in the Filipino translation of the POMS-16 and recruited the respondents from the Philippines. The POMS-16 generated "good" internal consistency, with Cronbach α = 0.89 across all translations. The POMS-16 scores from 1246 Filipino respondents yielded the following mean scores: depression/anxiety ($\bar{X}$ = 9.48), vigour ($\bar{X}$ = 12), fatigue ($\bar{X}$ = 8.76), and irritability ($\bar{X}$ = 8.63). At almost the same time, the first author initiated this study involving 2,407 Filipino athletes who were asked to describe how they felt "since the COVID-19 restrictions were imposed" by responding to the POMS-16. The scale showed "good" internal consistency (α = 0.880; ω= = 0.889), confirming that it is a reliable tool for measuring mood states in a sample of Filipino athletes.

Procedure

The data were collected from April to May 2020, amidst the extreme lockdown measures adopted by the Philippine government in response to the World Health Organisation declaration of the COVID-19 pandemic on March 11, 2020. After the first author secured the endorsement of the Philippine Sports Commission (PSC), University Athletics Association of the Philippines (UAAP), and National Collegiate Athletic Association (NCAA) executive boards for the conduct of the study, national and varsity coaches, managers, and directors were contacted to facilitate the dissemination of research instruments to their respective athletes. Potential participants were invited to join the study by sharing the link to a Google Form containing the questionnaire.

The athlete-participants could respond to the English or Filipino version of the POMS-16. A professional translator proficient in both languages ensured the accuracy of the translation. Furthermore, another translator reverted the questionnaire to its original language. This back-translated scale version underwent scrutiny against the original scale to identify discrepancies or misinterpretations. Thoughtful consideration of distinct cultural nuances and emotional expressions was instrumental in enhancing the relevance and relatability of the scale for the target sample. After this step, the translated questionnaire was piloted with a select group of participants who were fluent in both languages. Their feedback on the clarity, comprehensibility, and relevance of items in the Filipino iteration of the POMS-16 vis-à-vis its English prototype was solicited. This iterative process aimed to guarantee that the final version faithfully

captured the essence and intent of the original questionnaire.

The POMS-16 data from the Philippine sample in the study of Brand et al. (2020) were incorporated into the variation-finding research strategy to broaden the comparison of the mood states between the elite and non-elite athletes and those of the general adult population during the COVID-19 pandemic. Brand and colleagues provided access to the country datasets to the individual national representatives at the IRG, many of whom generated further research on their respective datasets. Thus, the first author of the present study included the POMS-16 results of the Filipino respondents, providing the comparative mood profiles for non-athletes.

Ethical Considerations

The investigation adhered to ethical research standards following the "Data Privacy Act of the Philippines" (Republic Act 10173 of 2012). In keeping with this governmental mandate, personal data were treated akin to personal property, warranting explicit consent from the owner prior to any entity's collection, processing, or storage unless specified by law. Furthermore, due to the conduct of the study during the COVID-19 pandemic, adherence to the implementing regulations of the "Bayanihan to Heal as One Act of the Philippines" (Republic Act 11469) was ensured, following prescribed public health protocols aimed at mitigating the spread and severity of the pandemic crisis. Face-to-face data gathering was restricted without special authorisation during this period; only clinical trials on COVID-19 were permitted for onsite and in-person research activities. Consequently, most related research has been conducted remotely, utilising online platforms such as email correspondence, mobile calls, and internet-based video communications.

Although endorsed by sport governing bodies in the Philippines, this study did not undergo formal institutional ethics due to the priority given to pandemic-related clinical trials during this period. Nonetheless, the study complied with national regulations on ethical research practices and adhered to the ethical principles of the Declaration of Helsinki. All participants were thoroughly informed about the study's purposes, procedures, potential risks, and benefits. They provided informed consent and were aware of their right to withdraw from the study at any time without consequences. Athletes under 18 were required to provide assent apart from informed consent from a parent or legal guardian. Additionally, all collected data were anonymised to protect participant privacy and confidentiality, with access restricted to the research team. Similarly, ethical review and approval were not required for the international research study involving Filipino respondents (Brand et al., 2020), as participants provided written informed consent to participate in the study following local legislation and institutional requirements.

Participants

Table 1 features the demographic profile of the athlete participants. The sample comprised 2,407 athletes, with a gender distribution of 1,051 females (43.7%) and 1,356 males (56.3%). Regarding the competitive level, 705 national players (29.3%) were classified as elite athletes, while 1,702 collegiate student-athletes (70.7%) were categorised as non-elite. The majority engaged in non-parasport activities (96.7%, n=2,328), with a smaller segment participating in parasport events (3.3%, n=79) before the pandemic.

Table 1. Demographic characteristics of athletes (n = 2,407)

Category	Frequency	Percentage
Sex		
Females	1051	43.7%
Males	1356	56.3%
Competitive Category		
Collegiate	1702	70.7%
Elite	705	29.3%
Type of Sport		
Parasport	79	3.3%
Non-Parasport	2328	96.7%
Age Group		
Below 18	152	6.3%
18-20	1325	55%
21-23	422	17.5%
24-26	158	6.6%
27-29	92	3.8%
30-33	87	3.6%
34-37	52	2.2%
38-41	30	1.2%
Above 41 years old	89	3.7%
Frequency of Training per Week		
1	16	0.7%
2	37	1.5%
3	180	7.4%
4	126	5.2%
5	645	26.8%
6	812	33.7%
7	591	24.6%

The age distribution within the athlete sample varied, with a marked concentration in the younger age groups. Individuals under 18 years of age accounted for 6.3% (n=152) of the participants. The largest age bracket consisted of athletes aged 18-20, representing 55% (n=1,325) of the sample, followed by the 21-23 age group at 17.5% (n=422). A total of 6.6% (n=158) of the participants were aged 24-26 years, and 3.8% (n=92) were aged 27-29 years. The remaining participants were distributed across older age groups, with 3.6% (n=87) in the 30-33 years range, 2.2% (n=52) in the 34-37 years range, 1.2% (n=30) in the 38-41 years range, and 3.7% (n=89) aged above 41 years.

Table 2 shows the demographic profile of the non-athlete participants. The sample (n=1246) consisted primarily of females (56.3%), followed by males (40.7%). Transgender, non-binary, and other gender identities accounted for a small percentage (3.1%) of the non-athlete cohort. The mean age of this group was 32.3 years old, while the median age was 28 years old.

Table 2. Demographic characteristics of non-athletes (n = 1,246)

Category	Frequency	Percentage
Gender		
Females	702	56.3
Males	507	40.7
Prefer not to say	16	1.3
Non-binary	12	1.0
Other	7	0.6
Transgender	2	0.2
Category	Mean	Median
Age	32.3	28.0

Data analysis

The data from Google Forms were exported to JAMOVI for analysis. The socio-demographic characteristics and sport played by the athlete-participants before the lockdown were examined using frequency and percentage data. Cronbach's alpha and McDonald's omega were used to assess the scale's reliability.

Raw POMS scores were converted to standardised T-scores to facilitate meaningful comparisons between the three cohorts in our sample and account for individual variability within each group. The mean T-scores were then calculated to present the results in a line graph visually.

The researchers used the Kruskal-Wallis test to investigate whether there was a statistically discernible difference in the mood states between elite, non-elite, and non-athletes. This approach is suitable given that the scores in all dimensions of POMS follow a non-normal distribution, as confirmed by the Shapiro-Wilk test (p= <.001). The Kruskal-Wallis test is typically used in behavioural sciences research to analyse non-normally distributed data. (McIntosh et al., 2010). This approach is coherent with studies (Baez, 2021; Santiago & Kang, 2022) employing nonparametric statistics to compare groups with non-normally distributed data.

Results

Table 3 presents the top 10 sporting events played by the 2,407 athlete participants prior to the pandemic. The most common sport was volleyball, with 259 participants (10.8%). This sport is closely followed by athletics, with 248 players (10.3%). Cheerleading and football also garnered substantial participation from 184 (7.6%) and 169 (7.0%) individuals, respectively. Among the other sports, baseball yielded 113 participants (4.7%), while basketball and taekwondo each garnered the participation of 116 (4.8%) and 118 (4.9%) players, respectively.

Table 3. Top 10 sports of athlete participants by frequency and percentage

Sport Played	Counts	% of Total	Cumulative %
Volleyball	256	10.7	10.7
Athletics	248	10.3	21.0
Cheerleading	184	7.6	28.6
Football	169	7.1	35.7
Taekwondo	118	4.9	40.6
Basketball	116	4.8	45.4
Baseball	113	4.7	50.1
Fencing	92	4.0	54.2
Table Tennis	92	3.8	58.0
Chess	87	3.6	61.6

Although not shown in Table 3, the survey findings revealed several sports with lower participation rates among the athlete participants. Wheelchair racing, trampoline, wheelchair badminton, and windsurfing had only two participants, collectively contributing a marginal 0.1% to the sample size. Boccia, dancesport, and powerlifting were among the sport events with minimal representation, with 6, 6, and 10 participants contributing less than 0.5%, respectively. Among the other sports, cycling involved 62 (2.6%), swimming 86 (3.6%), badminton 81 (3.4%), and fencing 96 (4.0%) participants. Unique sports such as *Sepak Takraw*, *Wushu Sanda*, and underwater hockey were also represented by 9 (0.4%), 9 (0.4%), and 22 (0.9%) participants, respectively. Finally, less frequently played sports, such as billiards and shooting, had only 1 participant each, yet they contributed to the diverse spectrum of sports in the dataset.

Table 4 displays the descriptive statistics pertaining to different mood states among elite, non-elite, and non-athletes, as assessed by the POMS-16. In terms of dejection/anxiety, elite athletes exhibited a greater mean score of 8.72 than non-elite athletes, whose mean score was 5.63, but a lower mean score than non-athletes, whose mean score was 9.48. This observation suggested the heightened manifestation of dejection and anxiety symptoms among elite athletes and non-athletes. Furthermore, the lower standard deviation among elite athletes (σ = 0.792) implied greater response consistency than among non-elite and non-athletes, whose standard deviations were 0.999 and 0925, respectively.

A similar pattern is evident for fatigue. Elite athletes demonstrated a mean score of 8.36, indicative of heightened fatigue, as opposed to non-elite athletes, who presented a mean score of 4.56 for this mood but a lower mean score than non-athletes, whose mean score was 8.76. Similarly, the standard deviation was marginally lower for the elite cohort (σ = 0.779), suggesting less variability in their experience of fatigue. In contrast, the trend diverges in the case of vigour. Elite athletes exhibit greater vigour, with a mean score of 13.16, than non-elite and non-athletes, with mean scores of 9.28 and 12.00, respectively. However, the variability in vigour, denoted by the standard deviation, was somewhat greater among elite athletes (σ = 0.977) than among non-elite athletes (σ = 0.955) and non-athlete individuals (σ =

0.768). In other words, while elite athletes, on average, exhibit higher levels of vigour, there is more diversity in their vigour scores, with some reporting very high levels of vigour and others reporting lower levels. On the other hand, non-elite athletes and non-athletes tend to have more consistent levels of vigour, with less variation among their scores.

With reference to irritability, elite athletes exhibited higher average scores of 8.36, suggesting a greater prevalence of irritability, in contrast to non-elite athletes, whose mean score was 5.88, but lower than that of the non-athlete group, who presented a mean score of 8.63. A lower standard deviation among elite athletes ($\sigma = 0.796$) implies greater response consistency. Finally, elite athletes and non-athletes demonstrated a higher mean score of 8.48 for total mood disturbance, indicating a greater degree of overall mood disruption than non-elite athletes, with an average score of 6.00. The narrow standard deviation observed among the elite and non-athletic groups ($\sigma = 0.711$) suggests less variability in their total mood disturbance compared to the non-elite group ($\sigma = 0.899$).

Table 4. Comparison of POMS-16 scores between sub-groups during the COVID-19 pandemic

Mood States	Competitive Category	Mean	Median	SD
Dejection/Anxiety	Elite	8.72	8.00	0.792
	Non-Elite	5.63	6.00	0.999
	Non-Athlete	9.48	9.00	0.925
Fatigue	Elite	8.36	8.00	0.779
	Non-Elite	4.56	5.00	0.960
	Non-Athlete	8.76	8.00	0.984
Vigour	Elite	13.16	13.00	0.977
	Non-Elite	9.28	9.00	0.955
	Non-Athlete	12.00	12.00	0.768
Irritability	Elite	8.36	8.00	0.796
	Non-Elite	5.88	5.00	1.004
	Non-Athlete	8.63	8.00	0.923
Total Mood Disturbance	Elite	8.48	8.00	0.711
	Non-Elite	6.00	5.32	0.899
	Non-Athlete	8.48	8.00	0.711

Figure 1 displays distinct mood profiles expressed as the mean T-scores among elite, non-elite, and non-athletes, as assessed by the POMS-16. Elite athletes consistently scored higher across all POMS dimensions than non-elite and non-athletes. This finding suggests that elite athletes experienced greater mood disturbance than the other two groups during the COVID-19 pandemic. However, their vigour scores emerged highest among their

mood responses. In contrast, non-elite athletes and non-athletes had the lowest vigour scores compared to their scores for dejection/anxiety, fatigue, and irritability. Thus, although elite athletes showed significant mood disturbance, their vigour scores remained notably high. Interestingly, non-athletes exhibited elevated levels of dejection/anxiety and fatigue similar to elite athletes but had lower vigour scores. Additionally, non-athletes displayed mood patterns akin to those of non-elite athletes, albeit with different T-scores.

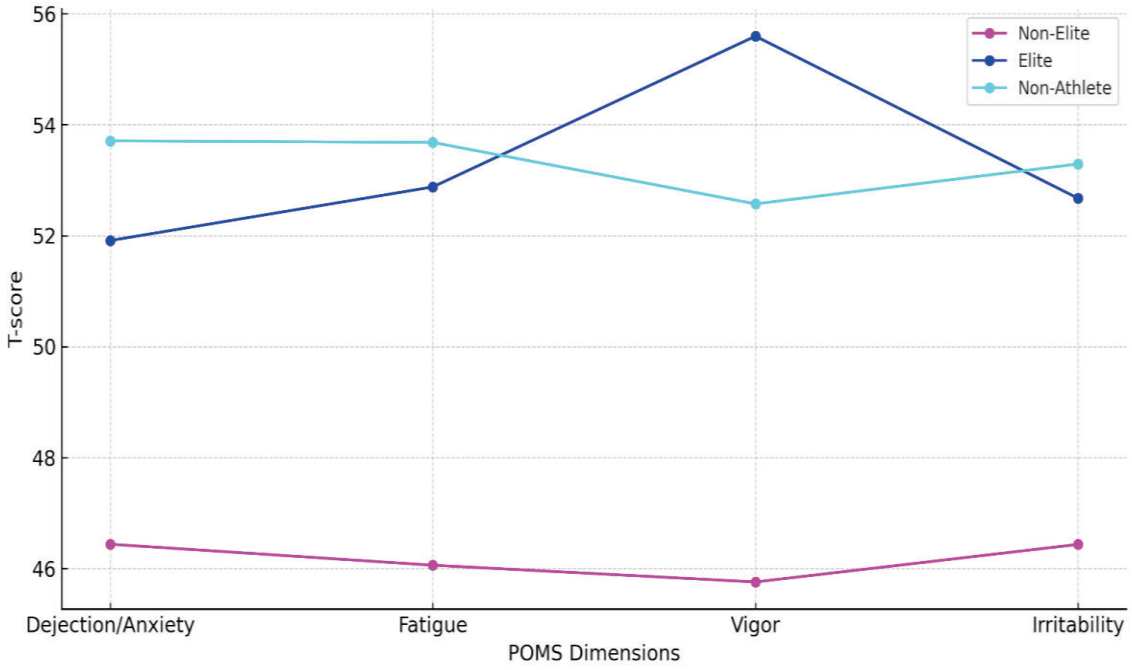

Figure 1. Line graph comparing POMS-16 T-scores by sub-groups

In summary, the elite athletes and non-athletes surveyed in this study reported elevated levels of dejection/anxiety, fatigue, irritability, vigour, and overall mood disturbance compared to non-elite athletes. Moreover, except for vigour, there tends to be less variability with the cohort of elite athletes in these mood states than with non-elite college student-athletes. These findings suggest that elite athletes experienced more pronounced mood states during the first few months of the COVID-19 pandemic.

Table 5 presents the outcomes of the Kruskal-Wallis test statistic alongside corresponding p-values and effect sizes for each mood state, demonstrating noteworthy disparities between the three cohorts. Remarkably, across all categories — irritability, vigour, fatigue, dejection/anxiety, and total mood disturbance—the p-values fall below 0.001. This outcome strongly indicates that the variances in mood states observed between elite, non-elite, and non-athletes hold considerable statistical significance, thus diminishing the possibility of these differences arising by random chance.

Examining the effect size for each mood state, measured by the epsilon square, offers insight into the magnitude of these distinctions. The effect sizes range from moderate to relatively strong, underscoring substantial cohort differences. Specifically, the effect size for vigour was 0.172, which

was the most pronounced among all mood states and indicated a robust presence of this mood state in elite athletes. Fatigue had an effect size of 0.151; irritability an effect size of 0.123; dejection/anxiety an effect size of 0.125; and total mood disturbance an effect size of 0.156. These effect sizes underscore the statistically significant disparities in mood states between the three cohorts, highlighting the considerable magnitude of these differences.

Table 5. Kruskal Wallis Test comparing the POMS-16 between elite and non-elite athletes during the COVID-19 pandemic

POMS Dimensions	χ^2	*p*	ε^2
Dejection/Anxiety	454	<.001	0.125
Fatigue	549	<.001	0.150
Vigour	625	<.001	0.171
Irritability	445	<.001	0.122
Total Mood Disturbance	572	<.001	0.156

To further understand the significant differences in the POMS scores of the three participant groups, as highlighted by the Kruskal Wallis test, the Dwass-Steel-Critchlow-Fligner pairwise comparison test was conducted. The results shown in Table 6 reveal significant disparities across various mood dimensions. The non-elite collegiate athletes reported lower POMS scores than did either of the two groups. Specifically, compared to both elite athletes and non-athletes, collegiate athletes exhibited notably lower levels of dejection/anxiety (W = -19.56, p < .001; W = -28.12, p < .001), fatigue (W = -24.82, p < .001; W = -29.398, p < .001;), irritability (W = -21.76, p < .001; W = -26.85, p < .001;), total mood disturbance (W = -23.88, p < .001; W = -30.75, p < .001;), and lower vigour (W = -28.62, p < .001; W = -28.91, p < .001;) On the other hand, elite athletes displayed significantly lower levels of dejection/anxiety (W = 5.61, p < .001), and higher levels of vigour (W= -8.94, p <.001) than non-athletes, but comparable fatigue (W = 0.824, p = 0.30), irritability (W = 1.27, p = 0.641), and total mood disturbance (W = 3.10, p = 0.072).

Table 6. Dwass-Steel-Critchlow-Fligner Pairwise Comparison of the POMS-16 between sub-groups during the COVID-19 pandemic

POMS Dimensions	Dejection/ Anxiety		Fatigue		Vigour		Irritability		Total Mood Disturbance	
	W	*p*	W	*p*	W	*p*	W	*p*	W	*p*
Elite & Non-Elite	-19.56	<.001	-24.82	<.001	-28.62	<.001	-21.76	<.001	-23.88	<.001
Elite & Non-Athlete	5.64	<.001	9.09	0.87	-9.09	<.001	1.11	0.72	3.10	0.072
Non-Athlete & Non-Elite	-28.15	<.001	-28.83	<.001	-28.83	<.001	-26.75	<.001	-30.75	<.001

The overall evaluation, incorporating the differential T-scores among the groups, Kruskal-Wallis test outcomes, effect size analysis, and the Dwass-Steel-Critchlow-Fligner pairwise comparison confirmed that elite athletes and non-athletes experienced

more negative mood states during the COVID-19 pandemic than non-elite athletes. The moderate to large effect sizes reveal a stark contrast in mood state changes between athletes and non-athletes during the pandemic, with non-athletes experiencing more significant adverse effects.

Discussion

The current comparative analysis of mood responses among elite athletes, non-elite athletes, and non-athletes during the initial phase of the COVID-19 pandemic surfaced several noteworthy trends. The heightened levels of dejection/anxiety and fatigue among elite athletes, in contrast to their non-elite counterparts, emphasise the distinct pressures and uncertainty faced by these cohorts during the global health crisis. These factors may have aggravated pre-existing stress and exhaustion associated with highly competitive sports for elite athletes or the exigencies of adult daily living for non-athletes. Additionally, the low variability in mood states among elite athletes suggests a more uniform emotional experience within this group, indicating a more consistent mood profile. On the other hand, despite experiencing higher levels of dejection/anxiety and fatigue, elite athletes also exhibited higher levels of vigour than did their non-elite counterparts. However, as mentioned earlier in the results section, the vigour scores of the elite athletes were more variable.

Heightened Mood Responses among Elite Athletes

This seeming paradox in the mood responses of elite athletes during the global health crisis highlights the complex nature of their psychological experience. This complexity is likewise reflected in a related investigation by Mehrsafar et al. (2021) on the mental health status, life satisfaction, and mood state of elite athletes over several phases of the COVID-19 lockdown measures. Their study presented elevated depression, irritability, fatigue, tension, and confusion scores for elite athletes from the shortened 30-item POMS version. The authors ascribed the heightened negative feelings of elite athletes to the pandemic-induced fear and loss, including health threats to themselves and loved ones, isolation from team and sport communities, lowered income, lack of societal support, and loss of normality.

Several factors may contribute to elite athletes' more pronounced mood responses than non-elite athletes during the pandemic-induced lockdown. One involves higher performance expectations. Elite athletes often face tremendous pressure to perform at the highest level, whether from themselves, coaches, or sponsors. The disruption of training routines and competition schedules during the pandemic may aggravate stress and anxiety among elite athletes who are intensely concerned about maintaining their performance standards in close anticipation of sport resumption after the pandemic. Research by Stambulova et al. (2021) emphasises the significant stressors elite athletes face, including the pressure to succeed, fear of failure, and uncertainty about the future, amplifying negative affect and mood during times of crisis.

Another factor involves the considerable investment in time and effort elite athletes commit to sport training and competition. In their seminal research on athletic identity, Brewer and colleagues (1993) defined the concept as “the degree to which an individual identifies with the athlete role” (p. 237). They developed the Athletic Identity Measurement Scale (AIMS) to operationalise the construct. Their work has generated extensive sport psychology research, identifying multiple beneficial and adverse effects of a strong athletic identity. For instance, a robust athletic identity is linked to high levels of

commitment to sport training and goal orientation (Horton & Mack, 2000), higher performance outcomes (Lochbaum et al., 2022), and increased levels of sport enjoyment (Babić et al., 2015). However, the literature reveals that a strong and exclusive athletic identity may engender lower tendencies to seek help and higher levels of gender role conflict (Steinfeldt et al., 2011), entice athletes to exceed optimal training regimens as a function of over-conformity (Coker-Cranney et al., 2018), and leave them vulnerable in career transitions such as injuries, deselection from a team, or career termination (Brewer & Petitpas, 2017).

A study by Rice et al. (2021) further revealed the psychological impact of the identity crisis among athletes during the COVID-19 pandemic, particularly among those who strongly identified with their sport. An examination of athletic identity and emotional regulation during the pandemic (Costa et al., 2020) showed that elite athletes exhibited significantly greater levels of the sub-dimensions of social identity, exclusivity, and negative affectivity, as measured by the AIMS than non-elite athletes. Moreover, these elite athletes with higher athletic identity scores demonstrated greater tendencies toward rumination and catastrophising. They attributed this observation to the peculiarities of the forced isolation that put athletes' careers on hold indefinitely. Elite athletes face limited timeframes within which to pursue their career objectives, and the compulsory cessation of their usual training routines and competition schedules during the pandemic may hinder the progression of their skills, impede their career trajectories, and jeopardise their prospects of success.

Non-Elite Athletes and Athletic Identity

Although the non-elite athletes in the study of Costa and colleagues (2020) were not necessarily all collegiate athletes but were competing at local and regional levels as opposed to elite athletes competing at the international level, their lower scores on the AIMS indicated relatively less investment in their athletic identity, thus reducing negative affectivity. Brewer and colleagues (1999) explained how college athletes distance themselves from their athletic identity after defeat, injury, sustained periods of underperformance, expulsion from their team, or retirement from the sport. This dissociation from their athletic persona ushers a psychological shift amidst adversity in their sporting journey. Such circumstances may compel athletes to re-evaluate their self-concept and redefine their identities as they grapple with the emotional toll of setbacks and transitions within their sport careers.

Settles and colleagues (2002) offered a different explanation for this apparent identity disengagement among collegiate athletes as a conscious shift in the centrality of domain-specific identities. They position this as essential to managing challenges involving role conflict, balancing academic and athletic demands, and finding mental health support. For instance, the athletic identity during the competition season will likely be highly central to collegiate athletes. In contrast, academic identity is expected to become more central during the examination period of the school year. This view was affirmed in the study of Yopyk and Prentice (2005) among student-athletes who quickly shifted the centrality of their academic and athletic identities within one experimental session. This self-regulation strategy may help student-athletes balance their dual careers. The collegiate non-elite athletes in the current study may have utilised this strategy because their academic engagement transferred to online platforms, requiring considerable time to adapt to synchronous and asynchronous learning. In the meantime, while their athletic careers took a back seat during the pandemic, this shift in the

centrality of their identities shielded them from heightened negative moods experienced by their elite counterparts.

Non-Athletes and Physical Activity

Interestingly, non-athletes experience comparable levels of dejection, anxiety, and fatigue as elite athletes but exhibit lower levels of vigour. This observation suggests that while non-athletes may experience similar levels of negative mood states as elite athletes, they may not possess the same psychological resources or coping mechanisms to maintain high levels of energy and motivation. Rahim and colleagues' study (2023), which investigated the health-related factors during the COVID-19 pandemic among the Iraqi adult population, may explain the mood responses of adult non-athletes during the pandemic. They found that physical activity levels and vigour levels are significantly correlated, whereas lower levels of physical activity correlate with decreased vigour levels. The fact that non-athletes do not engage in the same rigorous and structured physical training routines as elite athletes could explain the differential vigour levels observed in our study.

To better contextualise these findings, reviewing the measures provided by Petrowski et al. (2020) might be beneficial for gauging how these pandemic-related responses align with the standard mood states presumed by the POMS-16 before the pandemic. As a pre-pandemic baseline, the German sample employed to establish the POMS-16 exhibited lower levels of dejection/anxiety, fatigue, and irritability than all groups in the current study. Although the vigour scores of the German sample ($\bar{X}$=12.89) surpassed those of the non-elite ($\bar{X}$=9.28) and non-athlete ($\bar{X}$=12) groups, they fell below the vigour scores of the elite athletes ($\bar{X}$=13.16). This comparison highlights the pandemic's likely link between the pandemic and elevated negative mood states across the three samples in the study. Intriguingly, the non-athletes in our study exhibited the highest levels of dejection/anxiety. Elite athletes, on the other hand, consistently demonstrated more significant fatigue and irritability. However, the elite athletes also displayed greater vigour than the German pre-pandemic sample and their non-elite counterparts, suggesting a resilience or internal drive that persists even amidst increased mental and emotional pressure.

Vigour and Resilience

The observed high levels of vigour among elite athletes during the COVID-19 pandemic, despite experiencing high levels of negative mood states, may indicate their increased levels of resilience and coping ability (Leguizamo et al., 2021; Pellino et al., 2022). Elite athletes typically demonstrate greater psychological resilience than non-elite athletes (Taheri et al., 2023), allowing them to sustain peak performance levels under pressure. This resilience is cultivated through constant exposure to stressors and challenges and the implementation of effective coping strategies like goal setting, focus control, and seeking social support (Ozbay et al., 2007). Coping in sport psychology refers to individuals' cognitive and behavioural efforts to manage external or internal demands that exceed their resources (Birrer & Morgan, 2010). Elite athletes are known to employ a wide range of coping strategies, including problem-focused, emotion-focused, and avoidance-oriented strategies, depending on the nature of the stressor (Hamilton & MacDougal, 2007). The elevated vigour observed among elite athletes in this study could be attributed to successful engagement with problem-focused and emotion-focused coping strategies, enabling them to sustain motivation and energy despite severe restrictions resulting from the pandemic lockdown measures.

The findings revealed a fascinating pattern of vigour across all three samples involved in the study. Notably, vigour consistently emerged as the highest-rated dimension among the various mood subscales examined. This observation indicates that whether the research participants were elite, non-elite, or non-athletes, they reported higher vigour levels than participants in other mood states, such as dejection/anxiety, fatigue, and irritability. Despite facing unprecedented disruptions to their daily lives and routines, contextualised in a country that utilised extreme quarantine measures, the study participants demonstrated a remarkable capacity to maintain high vigour and energy. This unique finding could reflect Filipinos' resilience and adaptive coping mechanisms during adverse circumstances, such as natural disasters that frequently occur in their country (Adviento & de Guzman, 2010; Guinto & Logan, 2021). However, further empirical investigations are warranted to ascertain the individual and socio-cultural factors contributing to these distinct mood profiles and their implications for mental health and well-being, particularly within athletic populations.

The mood profiles generated from the current study present an intriguing contrast to findings from previous research. Lochbaum et al. (2021) synthesised pre-pandemic literature on athlete mood profiles, noting that while some studies have linked specific moods such as vigour and depression to athletic performance, the findings were not always consistent. However, the visual representation of the results, as shown in Figure 1, reveals an elevated mood profile among elite athletes across all POMS dimensions, including vigour. This deviation from the typical "iceberg profile," characterised by lower negative mood states and heightened vigour among elite athletes, suggests an atypical iceberg profile where all mood states are elevated, with vigour being the highest. The iceberg profile in sports, as proposed by Morgan (1985), is a visual representation of "desirable emotional health," featuring low scores in tension, depression, anger, fatigue, and confusion, with a high score in vigour (above the "water line"), as measured by the POMS. This metaphorical image is used to understand better the relationship between mood states and performance and the well-being of competitive and high-level athletes (Hanin, 2013).

Unlike elite athletes, non-elite and non-athletes exhibited notably different mood profiles. The non-elite athletes presented a "flat" profile, with T-scores consistently falling 4-5 points below the “water level” of 50, aligning with patterns observed in unsuccessful athletes (Gai, 2024). This observation suggests a relative absence of the heightened positive emotions often associated with high performance and elevated negative mood states in some populations experiencing adversity. Conversely, the non-athletes in the present study demonstrated an elevated mood profile across all POMS dimensions, indicating a heightened emotional state compared to non-elite athletes, but without the distinct peaks and valleys characteristic of the classic "iceberg profile".

Mood Responses and Culture

The preceding discussion on the mood responses of elite, non-elite, and non-athletes during the pandemic lockdown offers insights into their respective challenges, coping mechanisms, and resilience during unprecedented crises. Although this study did not endeavour to hypothesise that cultural differences affect the participants' mood responses to the COVID-19-related restrictions, a vital element in contextualising this study includes the cultural milieu of the Filipino samples in this study. Researchers often examine the interplay between culture

and psychological responses to circumstances. Cultural context plays a pivotal role in shaping individuals' psychological experiences, coping mechanisms, resilience, and overall mental health (Ji et al., 2022). Different cultures have varying norms, values, beliefs, and practices that influence how individuals perceive stress, approach challenges, and utilise coping strategies (Brady et al., 2018; Eid & Diener, 2001). This interplay between culture and psychological experiences is evident in Filipino culture, where emotions are intricately connected to understanding the self in relation to others.

Church and colleagues (1999) investigated how emotional concepts are structured within the Filipino culture, as evidenced by local terms for specific emotions, confirming the commonality of certain emotional experiences across different cultures while highlighting the unique cultural nuances of some emotions. They affirm what most lexical approach proponents hypothesise: certain emotions are more salient in some cultures than in others (Saucier & Goldberg, 1996). Similarly, they uphold what Levy (1984) proposed: that certain emotions are highly emphasised within a culture, a phenomenon that he termed "hypercognised." This tendency is evident in those emotions' extensive and refined vocabulary. By applying Levy's proposition to the findings of their study, Church et al. (1999) deduced that the predominant or hypercognised emotions among speakers of Filipino (*Tagalog*) include anger, anxiety/fear (and its absence), happiness, contentment, sadness, and arousal. In contrast, some emotional categories within the Filipino lexicon are comparatively underemphasised or "hypocognised." With minimal linguistic representation, they include feelings such as tiredness, guilt, surprise, contempt, and aspiration. Moreover, examining indigenous terms for emotions confirms that specific terms are more accurately classified as moods or experiential states rather than emotions. In their subsequent study investigating the structure of affect in the Filipino culture and comparing the results to those found in Western populations, Church and colleagues (1999) assert the cross-cultural comparability of emotions. However, they surmised that these cultural variations might significantly influence previous circumstances, frequency of occurrence, interpretative contexts, and responses linked with similar emotions rather than the structure of emotion itself.

Sta. Maria (2010), on the other hand, used a componential frame analysis to study the cultural underpinnings of negative emotions, identifying three clusters representing varying degrees of emotional intensity. He argued that such variations depend on the level of interpersonal relationships involved in the emotional experience. In the Philippine socio-cultural context, emotions are profoundly experienced within deeply meaningful relationships, characterised by a sense of shared humanity. In contrast, they tend to be less intense in superficial relationships. His study also suggested a process of re-appraising emotions involving members of an in-group, allowing the person to reassess the motives and intentions of others. Furthermore, he underscores that this view of relationships as integral to the experience of emotions is not limited to the experience of negative emotions but also applies to instances when someone's behaviours profoundly affect the *core* of one's humanity (recognised as *loob* in Filipino terms), despite the lack of a previous relationship with them. For instance, he cites the feeling of sympathy for a child who has been abandoned, even if one has had no prior involvement with the child. Although *loob* literally means 'inside' (which may refer to a physical demarcation, as in the case of the inner part of a house), it

is also used to refer to the subjective experience of the innermost self in relation to fellow human beings (known as *kapwa* in the vernacular). Alejo (2018) explains this phenomenon as the "relational interiority" of *loob* vis-a-vis *kapwa* (p. 29), highlighting how an individual's inner self (*loob*) is interconnected with others (*kapwa*).

Acknowledging these cultural considerations in understanding the differential mood responses of Filipino individuals in this study affirms our contribution beyond the evolving literature beyond WEIRD populations in psychological research, particularly within the sport psychology sub-discipline. Such WEIRD populations do not necessarily represent the global population (Beyebak et al., 2021), reinforcing earlier statements by Henrich and colleagues (2010a) that individuals from WEIRD societies are among the least representative populations to justify generalisations about humans. This reliance on a narrow sample for psychological research poses significant challenges to the applicability and universality of its findings, including those related to athletes' mood states and well-being during the COVID-19 pandemic.

Understanding the mood responses, as a quick assessment of well-being among Filipino elite athletes, non-elite athletes, and non-athletes amidst a global health crisis, also offers insights for providing culturally competent care in psychological practice, particularly sports psychology interventions for elite and non-elite athletes (Ryba et al., 2013). While the study's findings showcase variations in athletes' psychological experiences during the pandemic, they nonetheless underscore the need for culturally appropriate support systems to enhance the well-being of Filipino athletes, regardless of their elite or non-elite status. Such support mechanisms promote positive outcomes, such as cultivating inner strength or resilience (locally known as *tibay ng loob*) and promoting connectedness to a fellow human being (i.e., *kapwa* in family, teammates, society, and humanity).

Recognising the cultural nuances of psychological interventions for athletes in crises can enhance the effectiveness of support programmes, ensuring that they are adapted to meet the unique needs of athletes (and non-athletes) from diverse contexts. While the idea of tailored psychological interventions is not novel, this study engages in the expanding theory and practice of cultural sport psychology (CSP; Schinke & Hanrahan, 2009), aligning with its persistent calls to challenge the assumptions that Eurocentric paradigms are universally relevant and applicable across the disciplines of psychology, sport, and health sciences (Ryba et al., 2024). Indeed, ignoring the underlying cultural, social, and historical nuances in response to the COVID-19 health crisis perpetuates the normalisation of Western-centric perspectives and practices (Fox et al., 2009), ultimately reinforcing the unequal power dynamics dictating legitimate knowledge within the global sport psychology discourse.

Conclusion and Recommendations

The current investigation comparing the mood profiles of Filipino elite, non-elite, and non-athletes during the pandemic lockdown provides insights into the differential psychological responses of these sub-groups to the global crisis. Despite the elevated levels of fatigue, dejection, and anxiety among elite athletes, they also exhibit higher vigour compared to non-elite and non-athletes. Their atypical iceberg profile is a novel finding that highlights the intricate balance between resilience and vulnerability within this sub-group. In contrast, non-elite athletes, such as collegiate athletes, face unique challenges and demonstrate a

different mood profile, possibly due to lower performance expectations and a more adaptable approach to their shifting athletic and academic roles. The study also found that non-athletes displayed the most significant mood disturbance among the three groups. These diverse outcomes could be attributed to various factors, including differences in coping mechanisms, social support networks, structured routines and goals, and physical activity levels. However, despite the dissimilarities in mood responses among the three cohorts, all the participants demonstrated high levels of vigour, which may reflect the resilience of Filipinos in maintaining a positive mood amidst adversity.

This research expands the discourse on athlete well-being in several ways. First, the engagement of marginalised sub-groups from a non-Western culture in this study challenges the dominance of Western perspectives, which often shape our understanding of mental health within sport. Second, it emphasises the critical role of socio-cultural context in interpreting findings during a global pandemic, where experiences are invariably shaped by distinct social, political, geographic, and cultural factors. The specific focus on Filipino elite and non-athletes, in comparison to non-athletes, adds valuable nuance to our understanding of how competitive tiers that differentiate mood responses in the context of cultural values and norms might influence resilience, mental health challenges, and the types of support programmes that prove most effective.

Despite these notable contributions of the study, the authors acknowledge that the four-year delay between collecting data at the height of the pandemic-induced lockdown and writing this article poses potential problems, particularly concerning data relevance in the current context. Some scholars might question the significance and applicability of findings after significant changes have occurred in the conditions under which the data were gathered. Several factors account for the unintended delay in this study's report. The sudden shift to remote working conditions and the reallocation of personnel and funding due to the pandemic significantly impacted the research timeline. The research team faced logistical challenges in coordinating with collaborators and stakeholders, extending the original time needed for data verification, analysis, and manuscript preparation. However, these hurdles permitted a more thorough analysis of the data, incorporation of additional relevant literature that emerged during this period, and engagement in a more in-depth discussion of findings within the evolving scientific landscape.

The authors further assert the study's relevance beyond the psychological ramifications of the 2020 global health crisis to inform policy and programmes that better equip sports participants, coaches, leaders, and stakeholders for similar challenges in the future. The literature indicates that the psychological consequences tend to outweigh and outlast the physical effects of a pandemic. A meta-analysis of 65 independent studies by Rogers and colleagues (2020) revealed that those who survived serious coronavirus infections, including severe acute respiratory syndrome (SARS) and Middle East respiratory syndrome (MERS), remained at risk for mental health issues in the longer term, even years after discharge from hospitalisation.

The authors likewise recognise the limitations of conducting a survey at a single point during the pandemic. The limited perspective of the study may not capture the full extent of fluctuations or changes in moods and well-being indicators over time. People's subjective experiences and perceptions can evolve as the pandemic progresses. A single research snapshot taken from responses to a questionnaire may not

adequately capture these dynamics. Because the data were not collected over time, the present study's findings may be limited to a specific period during the two-year pandemic. Therefore, caution is advised when generalising these interpretations. Future studies could benefit from longitudinal survey designs where data are collected from participants at various stages of the pandemic. This strategy may offer insights into how individual emotions, attitudes, moods, and behaviours develop in response to changing pandemic circumstances. Despite these limitations, this study advances the understanding of how the pandemic impacts athletes' mental health and well-being. By broadening perspectives beyond the WEIRD cultures often observed in sports psychology research, our results contribute to the broader knowledge landscape in this field.

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Disclosure statement

The authors report no potential competing interests. The data are not publicly available because they contain information that could compromise the privacy of research participants. They did not consent to sharing their data with anyone outside the research team.

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