

Tokyo 2020 or 2021?
The Perceived Impact of the COVID-19
Pandemic on Portuguese Olympic and
Paralympic Athletes

Mestrado em Psicologia do Desporto e
Desenvolvimento Humano

Inês Miguel Santos Silva
Porto, 2021

Tokyo 2020 or 2021? - The Perceived impact of the COVID-19 Pandemic on Portuguese Olympic and Paralympic Athletes

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Dissertação apresentada com vista à obtenção do grau de Mestre em Psicologia do Desporto e Desenvolvimento Humano, na especialidade Psicologia do Desporto e Performance, da Faculdade de Desporto da Universidade do Porto e da Escola de Ciências Humanas e Sociais da Universidade de Trás-os-Montes e Alto Douro, ao abrigo do Decreto-Lei nº 74/2006, de 24 de março, na redação dada pelo Decreto-Lei nº 65/2018 de 16 de agosto.

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Supervisor: Cláudia Dias, PhD

Co-supervisor: Rui Sofia, PhD

Inês Miguel Santos Silva
Porto, 2021

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KEYWORDS: OLYMPIC GAMES, COVID-19, LOCKDOWN, COPING, SPORTS PSYCHOLOGY.

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Aos meus pais,
pelo apoio e amor incondicional.

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Abstract

For the first time in history, the Olympic Games were postponed due to the dissemination of the new coronavirus, causing a physical and psychological impact on all involved, especially athletes. Within this context, it is essential to understand how Olympic and Paralympic athletes perceived and are dealt with this crisis. The current dissertation aimed to explore the experience of Portuguese Olympic and Paralympic athletes, through their perceptions and emotions (study I), as well as the coping strategies used to manage the impact of the lockdown and of the postponement of the Olympic Games 2020 (study II). Using a qualitative methodology, data were collected through semi-structured online interviews with 15 athletes ($M = 29,9 \pm 5,5$ years) from both sexes ($n_{\text{male}} = 9$), including 13 Olympic athletes and two Paralympic athletes of various sports. A content analysis was performed in each study. Overall, our studies revealed that participants had multiple perceptions regarding the Olympic Games, their social and personal life, their physical and health conditions, and sports related areas, both on training and competition. Emotions referred comprise negative-toned and positive-toned. The negative-toned emotions were more expressive in the results, especially anxiety. The most used word to describe this event was adaptability. Athletes revealed to have used more coping strategies included in the appraisal-focused and approach coping styles, whereas the avoidance coping style was the least used. Adjusting to the constraints, looking for the positive side of negative events, negotiation, and acceptance revealed to be the most used coping strategies within this sample. The results reassure the individual, dynamic, and complex nature of athletes' experience. This one-time event created the opportunity to study the situation from the athletes' points of view. Findings can now be used to help other athletes and sports agents to prevent and deal with other stressful situations. These results highlight the importance of developing interventions directed at promoting coping strategies and social and personal competences in all athletes, regardless of their level of competition, as well as programmes that create awareness within other sports agents.

KEYWORDS: OLYMPIC GAMES, COVID-19, LOCKDOWN, COPING, SPORTS PSYCHOLOGY.

Resumo

A disseminação do novo coronavírus originou o primeiro adiamento da história dos Jogos Olímpicos, com impacto físico e psicológico em todos os envolvidos, especialmente atletas. Torna-se então essencial compreender como os atletas perceberam e lidaram com a crise pandémica. A presente dissertação teve como objetivo explorar as experiências dos atletas olímpicos e paralímpicos portugueses, através das suas perceções e emoções (estudo I), bem como as estratégias de coping utilizadas (estudo II) para gerir o impacto do confinamento e do adiamento dos Jogos Olímpicos. Através de uma metodologia qualitativa, realizou-se uma entrevista semiestruturada online para recolher os dados de 15 atletas ($M = 29,9 \pm 5,5$ anos) de ambos os sexos ($n_{\text{masculino}} = 9$), incluindo 13 olímpicos e 2 paralímpicos, de várias modalidades. Foi realizada uma análise de conteúdo para analisar os resultados de cada um dos estudos. Os resultados indicam que os participantes têm múltiplas perceções relativamente ao adiamento dos Jogos Olímpicos, à sua vida pessoal e social, às condições físicas e de saúde e ao desporto em geral, incluindo treino e competição. Surgiram emoções com tonalidade negativa e positiva, com maior expressão das primeiras, especialmente ansiedade. A palavra mais usada para descrever a experiência foi adaptabilidade. As estratégias de coping mais utilizadas enquadram-se numa abordagem de aproximação e de avaliação, com menor referência do estilo de evitamento. Ajustar aos constrangimentos, ver um lado positivo numa situação negativa, negociar/comprometer e aceitar foram as estratégias mais referidas na nossa amostra. Os resultados salientam a natureza dinâmica, individual e complexa da experiência dos atletas numa oportunidade única para explorar este evento global através dos olhos dos atletas, utilizando o conhecimento para ajudar outros atletas e agentes desportivos a prevenir e lidar com outras situações stressantes. É importante desenvolver planos de intervenção orientados para a promoção de competências pessoais, sociais e de adaptação em todos os atletas, desde a formação, bem como programas de formação de treinadores e outros agentes desportivos.

PALAVRAS-CHAVE: JOGOS OLÍMPICOS, COVID-19, CONFINAMENTO, COPING, PSICOLOGIA DO DESPORTO

List of Abbreviations

IOC – International Olympic Committee

PGDH - Portuguese General Directorate of Health

WHO - World Health Organization

General introduction

The year 2020 will forever be a mark on human history because of the dissemination of COVID-19, a disease caused by the new coronavirus, a global threat that led to numerous consequences all around the world, including a global lockdown and the postponement of the Olympic Games of Tokyo 2020.

Studies have shown the psychological impact of this unique situation (Brooks et al., 2020), with some authors considering this event as a traumatic stressor (Bridgland et al., 2021; Horesh & Brown, 2020). A lot of research has been made in the sports field regarding the impact of COVID-19 (Di Fronso et al., 2020; Jaenes Sánchez et al., 2021; Leguizamo et al., 2021; Moutaraji et al., 2021). Studies revealed that athletes have experienced a wide spectrum of emotional reactions (Bettine & Freitas, 2020; Oblinger-Peters & Krenn, 2020; Taku & Arai, 2020) and perceived different types of impact (Barbosa et al., 2020; Clemente-Suárez et al., 2020; Schinke, Papaioannou, Henriksen, et al., 2020), using a variety of coping strategies to deal with the situation (Jaenes Sánchez et al., 2021; Kirby et al., 2021; Szczypińska et al., 2021).

A stressful event is a dynamic and developing process, appraised by the individual as exceeding the personal resources and threatening the personal well-being (Folkman & Lazarus, 1985; Lazarus & Folkman, 1984). A cognitive appraisal depends on individual and environmental characteristics and it is defined as the "process of categorizing an encounter, and its various facets, concerning its significance for well-being" (Lazarus & Folkman, 1984, p. 31). The way each athlete appraises the ongoing transactions with the environment leads to an emotion, defined as an organized psychophysiological reaction (Folkman & Lazarus, 1985; Lazarus, 2000). The emotions we experience depend on the appraisal and the coping process.

Coping is a goal-directed process (Compas, 2009) that happens in response to stress appraisals. It has two main functions: managing the relationship with the source of stress and regulating stressful emotions (Folkman & Lazarus, 1980). Coping can be defined by "constantly changing cognitive and behavioural efforts to manage specific external and/or internal demands that are appraised as taxing or exceeding the resources of the person" (Lazarus & Folkman, 1984, p. 141). It is influenced by context or stressful encounters and

determined by the individual's cognitive assessment of what they can do to respond to that situation and to manage and regulate their emotions (Lazarus, 2000; Lazarus & Folkman, 1984).

The cognitive-motivational-relational theory outlines the relationship between these three aspects: appraisal, coping and emotion. According to Lazarus (1991a, 1991b), human adaptability to stressful situations depends on the source of stress, the primary appraisal of the encounter, the way the individual approaches the situation and the emotions that person feels, before, during and after the change. Therefore, if we want to understand the individual differences within our athletes, we have to understand the relational concept (Lazarus, 2000).

Therefore, the goal of the present dissertation was to explore the perceived impact of the pandemic on the Portuguese Olympic and Paralympic Athletes, understanding the way they appraised the situation, what emotions they experienced and what coping process they used to manage their emotions during this period. Despite all the studies already conducted, we found no results in the literature regarding this specific population. Although some aspects can be similar in other countries, there are important differences in the environmental and personal characteristics that result in a unique experience for Portuguese athletes. Thus, it seems important to study their experience, in order to create evidence-based interventions for Portuguese athletes in the future. This study would certainly contribute to help athletes to better manage stressful situations, as well as to develop coping strategies and mental health competencies in younger athletes.

In order to accomplish the main goal, the present dissertation is divided into two papers. The first aims to explore the perceptions and emotions of Portuguese Olympic and Paralympic athletes towards the COVID-19 lockdown and the postponement of the Tokyo 2020 Olympic Games. The second paper has the specific goal of finding which strategies were used by Portuguese Olympic and Paralympic athletes to sustain their level of training and performance during the lockdown. Lastly, a general conclusion is made, to summarize the main results and explore future directions, suggesting, as well, some practical implications of the present research to the field of Sport Psychology.

Paper I

Portuguese Olympic and Paralympic athletes' perceptions and emotions towards COVID-19 lockdown and the postponement of the Olympic Games – a qualitative study

Introduction

The new coronavirus, first identified in December 2019, in China (Portuguese General Directorate of Health [PGDH], 2020b; World Health Organization [WHO], 2020) , caused COVID-19, a disease that spread rapidly throughout the world, leading to strict mitigation measures, including lockdown. This event had a worldwide influence on everyone's freedom, routines, and mental health. The world population entered a socially distant reality and individuals became tired and cautious, with a state of constant uncertainty regarding the disease and its consequences (Brooks et al., 2020; Stambulova et al., 2020)

In Portugal, the PGDH announced the first case of coronavirus on 1 March, 2020 (PGDH, 2020a). On 11 March, the WHO categorized COVID-19 as a pandemic (World Health Organization., 2020b). On 18 March, the President of the Portuguese Republic declared a state of emergency in the country, and the specific rules for lockdown were communicated on 19 March (Council of Ministers, 2020). On 24 March, the Tokyo 2020 Olympic Games were postponed by the International Olympic Committee (IOC), which highlighted the significant impact of the current situation on athletes in preparation for the Olympic Games and the physical and psychological impact on all involved, especially athletes (IOC, 2020a).

According to the IOC (2020b), this is the first time the Olympic Games were postponed, and for the first time in history, athletes who have invested in their training for several seasons intending to participate in the Olympic Games had their goals also postponed. The literature review (Bettine & Freitas, 2020; Clemente-Suárez et al., 2020; Jaenes Sánchez et al., 2021) shows that, in general, athletes supported the decision to postpone the Olympic Games, although they had a strong expectation that they would not be definitely cancelled (Taku & Arai, 2020).

Despite their agreement, athletes have experienced a wide spectrum of emotional and cognitive reactions, such as disappointment, frustration, confusion, and relief (Bettine & Freitas, 2020; Taku & Arai, 2020). The delay of the IOC on the announcement of the postponement led athletes to also

experience distress and anger (Bettine & Freitas, 2020). This situation became an additional stressor to athletes, which according to Clemente-Suárez et al. (2020) may have caused loss of concentration, motivation and a desire to interrupt the preparation for the Olympic Games with the same energy as before.

Folkman and Lazarus (1985; Lazarus & Folkman, 1984) defined a stressful event as a dynamic and developing process, appraised by the person as exceeding the personal resources and endangering the personal well-being. Thus, perceiving a situation as stressful depends on the individuals' cognitive appraisal, which is the "process of categorizing an encounter, and its various facets, concerning its significance for well-being" (Lazarus & Folkman, 1984, p. 31) and it is influenced by the relationship between the characteristics of an individual and the nature of the environmental event. The cognitive appraisal process is divided in two, primary and secondary appraisal. A primary appraisal consists of the judgment that an encounter is irrelevant, benign-positive, or stressful. In secondary appraisal, the person evaluates coping resources and options to deal with the situation (Folkman & Lazarus, 1985; Lazarus & Folkman, 1984). The pandemic and all consequences were an unprecedented situation associated with high levels of uncertainty, aspects that influenced the individual's appraisal.

Everyone appraises the environment differently and the emotions experienced by each individual are the ultimate result of this appraisal (Folkman & Lazarus, 1985). Emotions have been defined as "an organized psychophysiological reaction to ongoing relationships with the environment, most often, but not always, interpersonal or social" (Lazarus, 2000, p. 230) and change as the person's appraisal of the transaction change. These emotions can be experienced as pleasant, when the individual is succeeding in achieving the desired goal or perceives a goal as challenging; or unpleasant, when an individual is struggling in pursuit of their goal (Lazarus, 1991a). Thus, each emotion relates to a different individual adaptational struggle and they can be categorized into "positive toned emotions", such as hope, happiness, relief, pride, joy, love, gratitude and compassion, or "negatively toned emotions", such as anger, anxiety, sadness, shame, fright, guilt, envy and disgust (Lazarus, 2000).

The health needs associated with the pandemic led to a global lockdown. Brooks et al. (2020) found symptoms of anxiety, confusion and anger in the general population, related to some different factors, such as the extent of lockdown, fear of infection, frustration, boredom, inadequate resources, false information, financial loss and stigma. Even so, the world population has shown itself to be resilient, and this historic moment will be a turning point for humanity, with long-term effects, namely in terms of mental health (Horesh & Brown, 2020). Some authors (Bridgland et al., 2021; Horesh & Brown, 2020) supported the idea that COVID-19 can be understood as a traumatic stressor event, capable of exacerbating other related mental health problems like anxiety, depression and psychosocial functioning.

Several studies have emerged to analyse the current situation of the athletes, not only focusing on how they are perceiving and appraising the pandemic, but also the potential impact it had on their sports career and well-being. Oblinger-Peters and Krenn (2020) examined the subjective perceptions of the Tokyo 2020 Olympic Games postponement among Austrian Olympic athletes and coaches and found that they experienced an immediate emotional reaction to the postponement characterized by confusion, disappointment and/or relief. These athletes also reported multiple consequences of the postponement, such as the maintenance of physical and psychological pressure, a lack of motivation, concerns about future performance, living and their occupational career, but also the opportunity for performance improvement and recovery. Many athletes and coaches also perceived the postponement as an opportunity to pursue different interests beyond sport and as a personal enrichment opportunity, as Schinke, Papaioannou, Maher, et al. (2020) stated.

Like the rest of the world's population, athletes faced an unexpected situation and a sense of high uncertainty with their routines and regular training restrained. Following the national and international rules, Portuguese sports facilities were closed, and the national and international sports competitions were suspended, cancelled, or postponed (Council of Ministers., 2020; Gallego et al., 2020; Guerreiro et al., 2020; Schinke, Papaioannou, Henriksen, et al., 2020). A wide number of research projects worldwide (Barbosa et al., 2020; Bettine &

Freitas, 2020; Clemente-Suárez et al., 2020; Di Fronso et al., 2020; Jaenes Sánchez et al., 2021; Schinke, Papaioannou, Henriksen, et al., 2020) reported the negative impact of lockdown and the constraints associated with the pandemic in professional athletes, who lost their daily training routines, often held outdoors or in spaces to which access was denied during this phase.

Athletes showed a negative perception of lockdown with regards to their training conditions, referring to the restraints of essential sports facilities and limitations in technical training (e.g., swimming pool) as negative factors of the lockdown (Bettine & Freitas, 2020; Clemente-Suárez et al., 2020). Some athletes were able to adapt their training routines, but most of them referred the difficulty with finding similar stimuli (Bettine & Freitas, 2020). However, Clemente-Suárez et al. (2020) found no negative perception regarding their performance. Some athletes mentioned differences between countries and also between athletes, with some having better conditions to practice than others and the impact that these conditions would have on their performance later (Bettine & Freitas, 2020). Paralympic athletes perceived the lockdown more negatively compared to Olympic athletes regarding their training and performance, probably due to their limitation of having to train at home. This also led them to perceive the lockdown as having a greater impact on their performance (Clemente-Suárez et al., 2020).

Barbosa et al. (2020) identified some consequences of lockdown in high-performance athletes, such as post-traumatic stress disorder, confusion, anger, sleep disturbances and mental fatigue. They also suggested that the need to readjust the body and the mind of athletes to new schedules and personal routines had a negative impact on mental and physical health. The results of a study with Spanish Olympic and Paralympic athletes (Clemente-Suárez et al., 2020) revealed anxiety levels similar to the ones reported for the rest of the population. Although they expressed a high perception of social alarm, they had an average concern about the pandemic. The authors linked these results to the fact that athletes have greater control over aspects of training, food and daily life, increasing their perception of control to avoid contagion, through personal care. Also, Di Fronso et al. (2020) reported an increased perception of stress among professional athletes, who showed higher levels of dysfunctional states,

accompanied by lower functional states. These changes contributed to a sense of uncertainty, confusion and frustration and made it difficult to establish a series of concrete goals (Taku & Arai, 2020). Overall, the lockdown conditions have negatively influenced elite athletes' mood state, mental health and life satisfaction (Mehrsafar et al., 2021).

Athletes who have trained for the 2020 Tokyo Olympic and Paralympic Games for a long time reported the great impact of this situation on their careers and their personal goals. Schinke, Papaioannou, Maher, et al. (2020) described this situation as an unforeseen transition period with holistic opportunities for personal enrichment and growth. Indeed, this situation provided an uncommon time away from extensive and longstanding training commitments and travel, offering an opportunity to develop their identities, existing relationships and explore other interests beyond sport. Stambulova et al. (2020) defined this situation as an unanticipated and shared career barrier with specific features, hard, unpleasant, and challenging, but also the opportunity to increase resources for dealing with other challenges in their sport and non-sport life.

For some athletes, it meant the loss of an opportunity, leading to retirement; for others, a temporal change, which led to a quick adjustment and the use of this moment to improve performance and recover from injuries; and, for others, an existential crisis bringing uncertainty to what they considered right: the holding of competitions, scheduled in advance. The pandemic fundamentally changed the cognitive assumptions of athletes, who stopped taking these events and calendars for granted (Bettine & Freitas, 2020; Taku & Arai, 2020). On a personal level, it could mean a delay in creating a family, returning to university, or investing in a professional career outside sport (Schinke, Papaioannou, Henriksen, et al., 2020).

The present study

Therefore, as we previously stated, the COVID-19 pandemic is affecting the life and mental health of the population around the world. This is a long-term event and a first-time opportunity to study how different persons perceive unexpected changes and crises. There are already a few studies examining

individual perceptions of athletes of the ongoing pandemic (Bettine & Freitas, 2020; Clemente-Suárez et al., 2020; Oblinger-Peters & Krenn, 2020; Taku & Arai, 2020). However, to our knowledge, there are no results or research regarding the perceptions of Portuguese athletes, a unique population, with different perspectives and opportunities. We hope that this study can contribute to the previous results worldwide and enrich the field of sport psychology, helping psychologists, coaches and other sports agents to understand how athletes experienced the lockdown and the Olympic postponement.

The main goal of the present study was to explore the perceptions and emotions of Portuguese Olympic and Paralympic athletes towards the COVID-19 lockdown and the postponement of the Tokyo 2020 Olympic Games. Therefore, our specific goals were to explore how Portuguese Olympic and Paralympic athletes perceived the COVID-19 lockdown and the postponement of the 2020 Tokyo Olympic Games, and what emotions they experienced during this process.

Method

Study positioning

The researchers' methodological approach was based on constructivism and followed a relativist ontology¹ and a subjective epistemology². The study was approached from an interpretative paradigm, believing that reality is socially constructed, and individuals develop subjective meanings of their personal experiences. The researcher's role is to understand the multiple realities that result from the participants' perspectives (Bloomberg & Volpe, 2018).

Therefore, a qualitative methodology was adopted aiming to create a comprehensive summary of the events, based on the athletes' "point of view". This type of methodology examines the situation, allowing the researcher to enter

¹ A relativist ontology has the purpose of understanding the subjective experience of reality and the multiple truths of each individual (Levers, 2013).

² A subjective epistemology believes that the situation perceived is dependent on the person perceiving (Levers, 2013).

the participants' reality and achieve a holistic understanding based on the complexity of the real world (Bogdan & Biklen, 1999; Patton, 2015). It is essential to understand the pandemic situation based on the participants' perspectives, looking for patterns centred on what athletes do and think, also promoting a deep understanding of the situation. The use of qualitative methodology appears to be the most appropriate to "make sense" of this atypical situation caused by the pandemic, based on the perspectives and the words of those who experience them, giving meaning to their experience.

For the data collection, we used a semi-structured interview. According to the existing literature (Bogdan & Biklen, 1999; Haag, 2004; Queirós & Lacerda, 2013), this type of interview provides an open expression, facilitates the collection of descriptive data in the subject's language, and provided access to the interviewee's thoughts and perceptions, allowing the researcher to develop an idea about how subjects understand certain aspects and respect the language and frames of reference. The data were analyzed through content analysis of the interview transcripts, an indispensable method for analyzing the content of an interview (Bardin, 1977).

Participants

The sample comprised a total of 15 Portuguese elite athletes ($M = 29,9 \pm 5,5$ years) from both sexes ($n_{\text{female}} = 6$; $n_{\text{male}} = 9$), 13 Olympic and two Paralympic. At the time of the interview, three athletes had already qualified for the Olympic Games. Our athletes practice different individual (swimming, kayak slalom, athletics, taekwondo, judo, kayak flatwater, road cycling) and team sports (kayak flatwater and rowing). All participants were included in the Tokyo 2020 Integration Project of the Portuguese Olympic and Paralympic Committees, which includes athletes who were already in qualifying conditions for the Olympic Games.

Instruments

A semi-structured individual interview was developed based on the goals of this study for data collection. The interview included five main topics: perceptions about the pandemic, the postponement of the Olympic Games,

training at home, future perspectives and the end of the lockdown. To allow the participants to freely answer, the questions were asked without following a specific order. Moreover, probing questions were also used to clarify certain topics (Queirós & Lacerda, 2013), some examples are: "Can you tell me more about how you felt?", "Can you be more specific?" and "Can you give me an example?".

To explore athletes' perceptions about the pandemic, we have included questions such as: "In one word, how was it to deal with all the changes that the pandemic brought to our lives in society and to your sports practice particularly?", and "How did you face this moment? Can you identify any negative aspects [of the pandemic/lockdown]? And positive ones?". Regarding the postponement of the Olympic Games, we asked questions as follows: "Which were your first thoughts when you received the news of the postponement?", and "Did this have an impact on your motivation to practice and on your goals?". To understand the impact of this event in athletes' life and summarize their experience, we've asked the participants to describe "in one word how was it to deal with all of the changes that the pandemic brought to our lives in society and to your sports practice particularly?".

The interviews were performed through digital means, mainly using the Zoom platform, a videoconference platform available for free. The use of this platform granted the quality of data collection, as well as recording the interview for further analysis. In cases in which the participants could not use this platform, interviews were conducted using different digital media. The interviews were conducted between August and December 2020.

Procedure

In order to collect data for the present study, the authors recruited participants through their personal connections and with the support of the Portuguese Olympic Athletes Commission. The main investigator applied an online interview to all the participating athletes. The authors ensured that the ethical guidelines of the Helsinki Declaration and respective revisions were followed, as well as the approval by the Ethical Commission of the authors'

institution (CEFADE 17 2021). A briefing about the objectives of this investigation was properly done to all the athletes, who gave verbal and written consent to participate and record the interviews. They were also ensured about the possibility to leave the interview whenever they wanted, as well as the confidentiality of their personal information.

Data Analysis

Based on the methodology and methods used in this study, data analysis was performed through content analysis of the interview transcripts. As suggested by Bardin (1977), the analysis included several steps of reading, exploring, and coding, using emerging categories, in an inductive method. The Nvivo 11 software was used to facilitate data organization.

All 15 recorded interviews were transcribed verbatim and read by the first researcher. Codes were assigned to each participant to ensure confidentiality throughout the analysis process. The unity of analysis was defined by quotes or paraphrased quotes representing a meaningful point or thought (Bardin, 1977; Gould et al., 1999). One researcher listed all the perceptions and emotions about this experience, referred by athletes during the interview, making an inventory, as proposed by Bardin (1977). The words used by athletes to describe this period were also listed.

Subsequently, following the second step proposed by the same author, a classification of these perceptions and emotions was made, grounded on previous studies and perspectives (e.g., Crespo et al., 2021; Lazarus, 2000). Perceptions were divided by areas, according to the results listed, finding four major categories: Olympic Games, Physical and Health, Social and Personal and Sport. It was decided to separate the Olympic Games theme from the Sports Career one because of the importance of this major event (the Olympic Games) for athletes' and because this was a major theme explored in the interviews and one that is very representative in the transcripts. The results found were comprised of these four themes, as displayed in Table 1. Emotions were divided into positively toned and negatively toned, according to Lazarus (2000).

Table 1. Perceptions reported by athletes on the transcripts, falling into major themes.

Type of Coping	Coping Strategy
<i>Olympic Games</i>	- Agreement with the postponement - Already expecting the news - Delay on the postponement - More qualifying opportunities - Possibility to lose the opportunity - Reassurance of the IOC - Uncertainty about the decision
<i>Physical and Health</i>	- Being older - Health concerns - Keeping the diet - Time to grow - Time to rest - Uncertainty about the pandemic
<i>Social and Personal</i>	- Changes in personal life - Lack of freedom - Lack of physical contact - Not being able to be with family and friends - Spending time with family - Time to invest in other things - Uncertainty about the future
<i>Sports</i>	- Change of plans - Demotivation - Keeping motivated - Lack of competition - Loss of physical and technique condition - Not the same conditions and the need to adapt - Regaining the pleasure of training - Same conditions worldwide - Time to improve - Training alone - Uncertainty about the competition

suggestion as previously reviewed. The final result is presented in Table 2. The meaningful words were summarized into a word cloud, represented on Figure 1.

Trustworthiness

In order to increase the reliability and trustworthiness of the data, as suggested by Elo et al. (2014), some steps were taken in every phase of the analysis process. The authors started by discussing the data collection method to ensure that it was the best approach to answer the research question and to collect the most fitting data for analysis. It was guaranteed that the sample was appropriate and allowed data saturation. The unity of analysis was chosen to contain all the important information to the analysis. During the coding process, the first researcher was responsible for the analysis. The whole process of categorization was carefully followed by the other researchers. The authors discussed and debriefed about the categorization and any divergent opinions found, working towards an agreement through multiple meetings (Creswell, 2013; Elo et al., 2014). The second author served as devil's advocate, an individual who keeps the researcher honest; asks hard questions about methods, meanings, and interpretations; and provides the researcher with the opportunity for catharsis by sympathetically listening to the researcher's feelings (Lincoln & Guba, 1985).

As an additional measure to ensure trustworthiness, a random interview was coded by the second author, to find the inter-rater agreement and calculate Cohen's kappa. This analysis revealed a coefficient of .88, which suggests a "very good" degree of agreement (Altman, 1991).

Results

Perceptions

The analysis of the transcripts revealed different perceptions about four major themes: the postponement of the Olympic Games, their physical and health conditions, their social and personal experience, and all occurrences regarding the world of sports, including training and competition.

Olympic Games

Table 1 summarizes the different perceptions that participants in this study reported about the postponement of the Olympic Games. A great number of athletes reported *uncertainty about the decision*. For example, one athlete referred to this situation as follows: "Then there was that anxiety in March, of the Olympic Games...Will they be postponed, will they not be postponed? Will they be cancelled, will they not be cancelled? It was a mess and a huge adrenaline rush" (Athlete 6). Overall, the references indicate a difficulty in making decisions and knowing what to do regarding the training routine or the adjustment to the situation, mentioning difficulty to deal with that uncertainty. An athlete referred to the *possibility to lose the opportunity* as a negative aspect of the postponement, as well as the *delay on the postponement* by the IOC, which took too long.

Despite that, some athletes were already expecting the news.

... it wasn't overnight that they decided they were going to cancel. The news reports were coming out, a lot of sports events were being cancelled, everything... we were seeing that the most certain path that things were taking, would lead to an outcome of them postponing, so it wasn't a shock. It was an assimilation of several things, that just had to lead to what happened, which was a postponement. (Athlete 8)

On the positive side, some participants revealed an *agreement with the postponement*, referring mostly to health issues and the lack of equal opportunities around the world to prepare for the qualification and the Olympic Games.

It was positive! On the one hand because, apart from the fact that we were not able to train, this is a greater problem in terms of world health. It was not the best time to hold the Olympic Games with this pandemic going on, with many families being sad, with many sick people, with the actual risk of the disease itself... So, for these two reasons, the postponement was a good thing! (Athlete 4)

An athlete also referred that this postponement will give him *more opportunities to qualify*, viewing this situation from a positive side.

Physical and Health

Regarding the perceptions about their physical and health conditions, some participants reported *health concerns* about COVID-19 and *uncertainty about the pandemic* as a negative aspect. A few also struggled to *keep the diet* in a situation where they could not anticipate what was going to happen. Maintaining a restricted food plan during lockdown was considered to be difficult for some of them.

Being older is an aspect that appears both negatively and positively on the transcripts. Although being one year older was a negative factor to three older athletes, as we can see in the following speech:

It has some impact because we get older, we get weaker as time goes by and for all intents and purposes it's another year. This next month I'll already be X years old and it's not easy to be at a very high level as we, frankly, get older. That's the impact I feel the most these days. I don't recover in the same way anymore, so this year must be programmed in a very surgical way: to be well at the right times, basically, recover well. This, I think, is the most physical, most physiological part of this change. (Athlete 15)

On the other hand, three younger athletes experienced this time-lapse as a positive thing, earning *time to grow*, as a person and as an athlete, "...it's another year of experience, of maturity... Going to the Olympic Games at X and not Y years old, it's an extra year. I think that in my case, yeah, it was very good!" (Athlete 9).

A great number of participants also perceived this as a *time to rest*, something they usually do not have in between training sessions, competitions, trips and logistics. "I was able to rest a lot, relieve my head in terms of training concentration, worry about other things, but nothing related to training" (Athlete 5).

Social and Personal

On a social and personal side, we have found that this was an event with different types of consequences, leading to *changes in personal life*, including

some professional changes, "...and I studied medicine and the goal was to train to go to the Olympic Games, and in January 2021 start the regular year. So, that part of my life was delayed by a year" (Athlete 12); and family decisions "and even in this process of being a mother, it was a one-year delay" (athlete 6). Athletes also reported the *uncertainty about the future*, the *lack of freedom*, the *lack of physical contact* and *not being able to be with family and friends* as negative aspects of this period.

On the other hand, this seemed to be an opportunity to *spend time with family*, for the ones who lived with them, and also a *time to invest in other things* besides sport: "exactly, the good stuff. The time for me, to read, to be with my girlfriend, to watch movies, to write my thesis... it was good, I enjoyed it." (Athlete 11).

Sports

All athletes referred to perceptions regarding the sports world, mentioning some positive and negative aspects. The negative perceptions were more expressive on the transcripts. The most negative aspect identified by the participants is the *lack of conditions and the need to adapt*:

On top of everything else, having to adapt all the workouts... It's just that in ideal training conditions, things... Well, we were used to it... Now, having to learn new routines, knowing that we're not doing the best we can, it was a bit difficult to deal with. (Athlete 3)

They also referred to the *uncertainty about the competition*, not knowing when and how they will compete again, living day by day. They also referred to the *lack of competition* itself, not being able to measure the results of their effort during this period and the *change of plans* as negative aspects of the pandemic event. This also led to the *loss of physical and technical conditions*, something influenced by the constraints found on training at home and with fewer conditions than usual. *Training alone* was found as a negative aspect referred to by athletes, with some of them also mentioning *demotivation* to training during the lockdown and after the postponement of the Olympic Games, referring: "It had an impact.

I'm much more unmotivated. I mean, I'm training a lot. I'm working out like I never have before, but I'm less motivated... I'm more discouraged..." (Athlete 2).

There were also some positive aspects mentioned by athletes. The most positive aspect perceived by athletes of all major themes was the *time to improve*. Athletes referred to this as an opportunity to get better, to improve physical, technical, and mentally, and some of them also referred they were at a better performance status than before: "I faced this extra year to evolve physically and psychologically since I still have a good evolution margin." (Athlete 11).

Some athletes related that they could *keep motivated*, despite the circumstances, and *regain the pleasure of training* because of the lockdown, mostly because of the changes of stimulus and the distance they had from their normal training routines. A few participants also reported as positive the fact that all athletes in the world were in *the same situation*, not having an advantage over each other.

Emotions

Table 2 illustrates the emotions found in the transcripts, divided by two major categories, positively toned, and negatively toned. The negatively toned emotions were found with a larger expression on the transcripts and with a greater variability, comparing with the positively toned ones.

The emotion most found on the transcripts was *anxiety*, with athletes referring to this as an emotion that emerged with the uncertainty of the pandemic and the decision about the Olympic Games.

It's good to be at home and I was with family, but as the days went by, I got more anxious, more stressed, more worried too, because I also didn't know very well what the situation was like with the Olympic Games with qualifying, so it was a bit of a complicated period. (Athlete 15)

Athletes also referred to *the feeling of disappointment and frustration* with the situation, as well as *sadness, boredom and fear*. One athlete also reported *loneliness* and another mentioned feeling *angry*.

Table 2. Emotions reported by athletes on the transcripts, falling into major categories

Category	Subcategory
<i>Positively toned</i>	Calmness Enthusiasm Relief Satisfaction
<i>Negatively toned</i>	Anger Anxiety Boredom Disappointment Fear Frustration Sadness Loneliness

The positively toned emotions found in the transcripts were *calmness*, *enthusiasm*, *satisfaction*, and *relief* with the last one with a larger expression. Athletes felt relieved with the decision of the postponement.

On a first instance it was a relief, I confess. I was very relieved because, that's the thing, without work, without decent preparation, we can't be at our best level. Not being at our best level, we will compete without great style, without great motivation, without great confidence, basically. And so, I felt relieved. (Athlete 4)

Meaningful words

Figure 1 comprises a summary of the meaningful words that athletes have mentioned to describe the experience they have lived. The word cloud gives us a graphical representation of the word frequency. We found a great variability within the results, with participants choosing different meaningful words, leading to results with only one reference. *Uncertainty* was referenced twice, and *adaptability* was the most mentioned one, mentioned by five athletes.

Maybe adaptation. I think it's the word that better fits here because we all have to adapt ourselves and create adaptations to go through our day to day. Everything that now involves leaving the house... so yes, adaptation is the keyword. (Athlete 8)



Figure 1. Word cloud summarizing athletes experience through one word

Discussion

The present study aimed to explore the perceptions and emotions of Portuguese Olympic and Paralympic athletes with reference to the COVID-19 lockdown and the postponement of the Tokyo 2020 Olympic Games. Overall, findings may suggest that the COVID-19 lockdown and the postponement of the Olympic Games have been perceived with multiple consequences on their personal and social life, sport-related areas (as practice and competition) and their physical and health conditions. The results presented highlight the complexity of the event, with a perceived distinct impact for each participant. The way we appraise and perceive each event depends not only on the event itself and the environment we lived in, but also on the individual characteristics and the relationship between these factors (Lazarus & Folkman, 1984). Participants have different points of view, considering their personal characteristics and personal goals, which enriches the understanding of the collective experience they are going through.

The first major aspect to emphasize is that some athletes revealed to agree with the postponement of the Olympic Games, essentially reporting reasons of health and lack of training conditions, which is aligned with the results found in the literature (Bettine & Freitas, 2020; Clemente-Suárez et al., 2020; Jaenes Sánchez et al., 2021). In line with Taku and Arai (2020) study, athletes in our study also had the hope that the Olympic Games would not be cancelled, revealing at the same time, a sense of uncertainty about the situation, the difficulty to establish a series of concrete goals and the possibility to lose the opportunity. Some participants mentioned the expectation they already had about the postponement. Although, as known, the IOC did not announce the decision right away, and as time went by, athletes were perceiving the expected outcome.

Regarding physical and health, uncertainty about the pandemic and health concerns were two aspects that emerge from the results and that are in line with previous studies (e.g., Brooks et al, 2020; Stambulova et al., 2020) . An interesting finding is related to the perceived impact athletes have about this one-year gap in their performance regarding their age. Being older was an aspect mentioned both negatively and positively. For older athletes this could have been an extent of another intensive year with consequences in their physical skills. However, for younger athletes, this could mean more time to improve and become more mature. However, previous studies have only pointed out the possibility of early retirement for older athletes (Stambulova et al., 2020). This dualistic perception about the same year gap reassures the individual experience and the weight of personal characteristics and circumstances to the appraisal of each situation (Lazarus & Folkman, 1984).

The perceived consequences on training and competition, regarding the theme of sports, were the most expressive and the only major theme referred to by all athletes. The lack of conditions and the need to adapt is also found in the literature as a negative consequence of the lockdown (Bettine & Freitas, 2020; Clemente-Suárez et al., 2020), leading to the perceived loss of physical and technical condition. These results are different from the ones reported in a sample of Spanish athletes, for example, who did not perceive a negative impact regarding their performance (Clemente-Suárez et al., 2020). This can possibly be

explained by the differences in restrictions and circumstances between countries, with some athletes having better conditions and a different perception of the impact of the lockdown and the constraints on their performance (Bettine & Freitas, 2020). The uncertainty about the calendar and the competitions is also found in the literature as a negative aspect mentioned by athletes, who stopped taking these events for granted (Bettine & Freitas, 2020; Taku & Arai, 2020). The demotivation to keep the work was expected, as suggested by Clemente-Suárez et al. (2020). This can be linked to the uncertainty about the postponement and the competition (Côte et al., 2020). Without being able to compete and pursue their goals (Taku & Arai, 2020), athletes could have become less motivated.

On the other hand, this situation was also perceived in a positive light, as a time to rest, improve and recover, which is in line with the results found in other studies (Oblinger-Peters & Krenn, 2020; Schinke, Papaioannou, Maher, et al., 2020; Taku & Arai, 2020). Nonetheless, a new perspective was found within our results. For some athletes, being at home and taking a break from their workout routine and travelling schedule, shifting the focus to other goals, provided a newfound pleasure in training. The schedule of elite athletes is often full of training hours, competition, travelling and other sports-related responsibilities all year round (Weinberg & Gould, 2019). Many athletes that we interviewed suggested that this current situation was the first time they were taking such a long break from their routine since they were younger and started their journey to become elite athletes. In the competitive sports industry, people often work under continuous pressure all year round, without a long period of vacations or rest, which produces mental and physical fatigue (Weinberg & Gould, 2019). Taking some time off is essential and can provide new perspectives and a different motivation to work and improve.

On a personal and social sphere, our participants referred to changes in personal life, regarding family and professional decisions (Schinke, Papaioannou, Henriksen, et al., 2020). It was also a period to spend time with family and invest in other things besides sport (Oblinger-Peters & Krenn, 2020; Schinke, Papaioannou, Maher, et al., 2020). As in the general population,

athletes referred to the lack of freedom, not being able to be with friends and the uncertainty about the future (Brooks et al., 2020; Stambulova et al., 2020).

The emotions found in the transcripts are also similar to the ones reported all around the world regarding the lockdown and the postponement. The emotion with greater expressiveness in the transcripts was anxiety (Brooks et al., 2020), but also anger (Barbosa et al., 2020; Bettine & Freitas, 2020; Brooks et al., 2020), disappointment and frustration (Oblinger-Peters & Krenn, 2020; Taku & Arai, 2020). Within the negatively toned ones, our results also indicate feelings of fear, sadness, loneliness and boredom. Regarding positively toned emotions, the results reveal relief as found in the literature (Oblinger-Peters & Krenn, 2020; Taku & Arai, 2020) but also enthusiasm, calmness and satisfaction.

As displayed by the word cloud presented on Image 1, the word that better describes this experience to the athletes that have participated in our study is adaptability. According to previous works (Gaudreau & Blondin, 2004), elite athletes are used to dealing with a lot of psychological demands during their regular training and competition routines, being able to adapt and learn from their previous experiences. Therefore, it seems that athletes are used to *adapting* and dealing with *challenges*, with *patience* and *determination*. It was sometimes *complicated*, including the confrontation with *reality*, but with *willpower* they became more used to the *new normality*, using this as a *learning experience* to their future encounters with stressful and *uncertain* situations.

Conclusion

To conclude, this period was, without a doubt, a time of uncertainty and adaptability. Athletes are used to dealing with different types of pressure and uncertainty and actively cope with stressful situations (Polman, 2012). However, considering that effective coping skills promote positive emotions, superior performance and adaptive results (Nicholls et al., 2012; Yih et al., 2020), this event seems to emphasize the need to invest in this area. There are already some studies exploring the coping skills used by athletes during this situation (Di Fronso et al., 2020; Rettie & Daniels, 2021; Szczypińska et al., 2021). However,

it would be interesting to find out how our participants dealt with the lockdown and the postponement.

It also seems important to create awareness between coaches and other sports agents about how certain events are appraised and what are the emotional and performance consequences of that perception. It would be important to include the intervention of sport psychology within the training routine, to promote personal and social skills on athletes since the beginning, anticipating not only the adversities within the sports context, but also in their daily life.

Moreover, it seems important to accentuate the importance of the individual experience within every situation (Lazarus & Folkman, 1984). As suggested by our findings, each athlete revealed a different perspective and dissimilar emotions regarding the same event. To really understand the individual experience through the eyes of who lived the moment and being able to understand the collective perception with an inclusive view, more qualitative studies should be conducted. This would allow us to create a stronger and deeper understanding of these type of experiences and be prepared not only for crises, like the COVID-19 pandemic but also in their daily challenges.

Despite the individual nature of each athlete' perceptions, results also appear to suggest that athletes also have shared perceptions of the event, in line with previous works in the field. These findings suggest the importance of developing programmes that can be applied with athletes from different cultures, with a common basis, but at the same time, with specific characteristics regarding culture, conditions and individual perceptions. Sports psychologists have, more than ever, an important role and should learn from this experience and develop programmes to help athletes and sports agents deal with uncertainty and stressful situations, using coping skills training, mindfulness or other client-specific approaches, within a comprehensive and holistic intervention based in evidence (Moore & Bonagura, 2017).

Even though the present study was the first, to our knowledge, to explore Portuguese Olympic and Paralympic perceptions about the COVID-19 pandemic, the lockdown and the postponement of the Olympic Games, some limitations should be taken into account. The first one is the timeline where participants have

been interviewed, implying a recall of their past experiences and memories. This is a possible type of investigation, where participants offer a retrospective of events (Bogdan & Biklen, 1999). However, longitudinal studies would provide additional and interesting data on this issue, describing how athletes' perceptions and emotions develop and change over time. Indeed, it would be interesting to perform a study with the same athletes at later moment, in order to understand how this experience has impacted their performance and their sports career. It is also important to note that the sampling of this study is not representative of the population of Portuguese Olympic and Paralympic athletes. Consequently, findings must be interpreted with some carefulness without making general affirmations about our population.

Nevertheless, we believe that the present results provide valuable information that can be used in the future, in the sports psychology field, providing scientific base knowledge to develop programmes and better interventions.

Paper II

How are Portuguese Olympic and Paralympic athletes dealing with the COVID-19 lockdown? A qualitative study about their coping strategies³

³ Paper presented at IJUP'21 (University of Porto Youth Research Meeting 2021)
distinguished in the field of Sport Sciences

Introduction

COVID-19 is a disease caused by the new coronavirus, first identified in December 2019, in China (Portuguese General Directorate of Health, 2020; World Health Organization, 2020) . This disease spread rapidly throughout the world, leading to strict mitigation measures, including lockdown. The world population was forced to redefine their daily routine, with a direct influence on their freedom and contact with their family and friends. People entered a socially distant reality and became tired and cautious, with a state of constant uncertainty regarding the disease, its spread and its consequences (Brooks et al., 2020; Stambulova et al., 2020).

The pandemic has also affected the world of sports. Like the rest of the world's population, athletes faced an unexpected situation and an atmosphere of high uncertainty. Their regular training was interrupted due to the lockdown and the health needs associated with the pandemic. Following international and national health's recommendations, Portuguese sports facilities were closed, and all the competitions were postponed or cancelled (Council of Ministers., 2020). For the first time in history, the Olympic Games were postponed, causing a physical and psychological impact on all involved, especially athletes (International Olympic Committee, 2020a). The pandemic is still developing and the long-term effects are still unknown.

Folkman and Lazarus (1985) define a stressful event as a dynamic and developing process. Some authors (Clemente-Suárez et al., 2020; Li et al., 2020) compare the pandemic to a period of crisis, representing a new threat that challenges the adaptive mechanisms of human beings, which may lead to a great number of consequences, including psychological. Brooks et al. (2020) have recently reviewed the existing evidence on the psychological impact of quarantine on people and concluded that this situation can have adverse psychological effects such as post-traumatic stress symptoms, confusion and anger. During this challenging period where the world population readjusts itself at all levels, athletes also need to adapt their routines to maintain their practice and pursue their goals, developing coping strategies directed at dealing with these new demands.

Coping is a process influenced by context or stressful encounters defined by "constantly changing cognitive and behavioural efforts to manage specific external and/or internal demands that are appraised as taxing or exceeding the resources of the person" (Lazarus & Folkman, 1984, p. 141). It is determined by the individual's cognitive assessment and how they answer the most important question in the entire process: "What can I do?". Individual and environmental characteristics impact on this response, as do available resources and constraints that inhibit the use of those resources. The individual response is determined by the way each person makes use of these resources, whether they are available or not (Lazarus & Folkman, 1984). Coping is goal-directed, wherein individuals organize their efforts around a specific motive or goal. It is not limited to successful efforts but includes all attempts to manage stress regardless of their effectiveness (Compas, 1987, 2009).

A wide range of coping categories is described in the literature, with a lack of consistency in the terminology used by different authors, which makes it difficult for comparisons between studies (Skinner et al., 2003). Nicholls and Polman (2007) suggested five types of coping in sport: appraisal-focused coping (re-evaluation of the situation to reduce its importance), approach coping (the ability to confront the source of stress and deliberately attempting to reduce it), avoidance coping (both behavioural and cognitive efforts to avoid a stressful situation), emotion-focused coping (active attempts to deal with the emotional distress associated with the situation) and problem-focused coping (individual attempts to alter the stressful situation, doing something to relieve the problem).

Elite athletes undergo intensive training and competitive pressure, being confronted with a series of psychological demands. The coping process is essential for succeeding in sport, allowing athletes to deal with challenges, success and failure. Indeed, athletes may depend on their capacity to cope effectively with these various demands to achieve their performance goals and maintain psychological well-being (Daumillier et al., 2021; Gaudreau & Blondin, 2004; Richards, 2012).

Several studies have investigated coping strategies used by athletes in stressful situations over the years. Gould et al. (1993) explored the strategies

used by American wrestlers to deal with the adversities of the Olympic Games competition and found that athletes use a variety of coping strategies, such as thought control strategies (e.g., blocking distractions, positive thinking), task focus strategies (e.g., more immediate focus, concentrating on goals), behavioural based strategies (e.g., changing the environment, following a routine) and emotional control strategies (e.g., arousal control, visualization). Holt and Hogg (2002) also studied how female soccer players coped with stress during preparations for the 1999 World Cup finals and found that participants used numerous strategies such as reappraisal, seeking support from family and friends, performance behaviours and blocking thoughts. These are based on a range of problem-focused, emotion-focused, appraisal-reappraisal and avoidance coping styles. More recently, Didymus and Fletcher (2014) demonstrated that swimmers used a variety of coping strategies, used both in isolation and in combination to deal with different organizational stressors. The perceived most effective coping strategy used in isolation was self-reliance and in combination was escape and negotiation.

The existing literature (Gaudreau & Blondin, 2004; Nicholls et al., 2009; Tamminen & Holt, 2012) also indicates that athletes of all ages can employ several coping strategies to deal with a specific stressful situation, applying different coping strategies depending on the stressors they encounter. In this lockdown situation, there were several limitations, such as the global situation of the pandemic and its constraints, the lack of resources in the sports context and personal constraints. The effective use of the available resources can have a positive impact on how athletes handled this moment. This can be an important factor to better deal with this current stressful and demanding situation (Lazarus & Folkman, 1984; Stambulova et al., 2020).

Previous works on coping strategies applied by athletes during the COVID-19 pandemic indicated that positive cognitive restructuring of the COVID-19 pandemic situation was associated with positive mood states (Iancheva et al., 2020). Similarly, cognitive restructuring and emotional calming were found to be negatively correlated with negative emotional states, such as depression, stress, anxiety and fatigue (Leguizamo et al., 2021). Szczypińska et al. (2021) also found

that athletes most often applied cognitive and behavioural coping strategies such as positive re-evaluation, acceptance, planning and active coping.

An international study conducted by Kirby et al. (2021) with participants from 12 countries found that the use of appraisal coping (such as high accommodation-focused coping potential and the ability to meet one's physical needs), problem-focused coping (like problem-solving) and accommodative coping (such as positive reappraisal and self-encouragement) were associated with positive outcomes of mental health and wellbeing during the pandemic. Moutaraji et al. (2021) developed a study with elite athletes from various sports and found that the coping strategies adopted during lockdown varied significantly depending on the type of sport. More specifically, team sport athletes are at advantage in terms of coping with adversity and have more confidence and motivation to succeed in terms of coping strategies adopted when compared to athletes who practice an individual sport. These differences can be explained, in part, by the additional social dimension of team sports and, on the other hand, by the fact that individual sport athletes focus their energy on a single activity while team athletes are used to counting on the support of their teammates. In another study conducted during the lockdown, athletes have reported that being in contact via the internet with coaches or other professionals helped them to cope with stress during lockdowns (Di Fronso et al., 2020).

Jaenes Sánchez et al. (2021) have analysed how Spanish high-performance athletes are adjusting to the COVID-19 lockdown and found that receiving coaching, support, and completing frequent training routines seemed to be valuable tools to prevent or reduce some of the harmful effects of isolation on athletes' emotional well-being. It was also found that using coping strategies helped athletes accept the rules of confinement, the loss of mobility and freedom and the restrictions caused by the pandemic situation. Oblinger-Peters and Krenn (2020) have conducted a study with Austrian athletes and coaches and reported the use of various coping strategies, such as distancing themselves from sports, cognitive reframing, appealing for acceptance and planning behaviour.

To our knowledge, no studies were found in the literature with elite Portuguese athletes regarding their coping strategies during the COVID-19

lockdown. However, Portuguese adults from the general population reported acceptance, planning and active coping as the most employed coping responses to deal with the stress of the national lockdown (Jarego et al., 2021). It was also found that the use of instrumental and emotional support, self-blame, venting, denial, behavioural disengagement, avoidance and substance use were associated with poorer mental health. Active coping, positive reframing, planning, acceptance and humour were associated with better mental health (Ferreira et al., 2021; Jarego et al., 2021).

Previous results with elite Portuguese athletes from various sports regarding their use of coping strategies during distinctive stressful events showed the use of multiple strategies simultaneously, mostly considered adaptative, including active coping, planning, positive reframing, acceptance, problem-solving and managing emotions (Dias et al., 2009, 2010). An investigation conducted by Barbosa and Cruz (1997) with Portuguese elite handball players concluded that problem-solving and positive reframing were the most used strategies applied by them to confront the competitive stress experienced. Portuguese football players also reported active coping strategies and positive reframing of the situation (Ribeiro et al., 2014).

Although several investigations explore the use of coping strategies by athletes in stressful situations, especially in competitive contexts, these events are usually predicted and expected from every sports agent and can be prepared. The lack of investigations about the athletes' behaviour on this specific crisis, characterized by its unpredictable nature which goes beyond the control of the world population highlights the value of the present study.

The present study

The main goal of the present study was to identify and explore the coping strategies used by Portuguese Olympic and Paralympic athletes to manage the perceived impact of COVID-19 lockdown and the postponement of the Tokyo Olympic Games 2020. Therefore, our specific goal was to find which strategies were used by Portuguese Olympic and Paralympic athletes to sustain their level of training and performance during the lockdown.

Method

Study positioning

To fulfil the purpose of this study, a qualitative methodology was adopted aiming to create a comprehensive summary of the events, based on the athletes' reality. It is essential to understand the pandemic situation based on the participants' perspectives, looking for patterns centred on what athletes do and think. This would certainly help others in similar unpredictable situations in the future. The use of qualitative methodology appears to be the most appropriate to “make sense” of this atypical situation caused by the pandemic, based on the perspectives and the words of those who experience them, giving meaning to their experience. Additionally, as stated by Tamminen and Holt (2010), qualitative approaches are useful to studying coping, as it is a subjective and individual process.

The researchers' methodological approach was based on constructivism and followed a relativist ontology⁴ and a subjective epistemology⁵. The study was approached from an interpretative paradigm which states that reality is socially constructed and individuals develop subjective meanings of their personal experience resulting in multiple meanings. The researcher's role is to understand the multiple realities from the perspectives of participants (Bloomberg & Volpe, 2018). Therefore, this was considered the most appropriate methodology because it promotes a deep understanding of an environment or situation, capturing the different perspectives of the participants in this specific case. It examines the situation, allowing the researcher to enter the world of the participants and achieve a holistic understanding, based on the complexity of the real world (Bogdan & Biklen, 1999; Patton, 2015).

⁴ A relativist ontology has the purpose of understanding the subjective experience of reality and the multiple truths of each individual (Levers, 2013).

⁵ A subjective epistemology believes that the situation perceived is dependent on the person perceiving (Levers, 2013).

For the data collection, we used the semi-structured interview because, according to the existing literature, this type of interview provides an open expression, allows access to the interviewee's thoughts and perceptions, facilitates the collection of descriptive data in the subject's language, allowing the researcher to develop an idea about how subjects interpret certain aspects and respect the language and frames of reference (Bogdan & Biklen, 1999; Haag, 2004; Queirós & Lacerda, 2013). The data were analyzed through content analysis of the interview transcripts, an indispensable method for analyzing the content of an interview (Bardin, 1977).

Participants

A total of 15 Portuguese elite athletes ($M = 29,9 \pm 5,5$ years) from both sexes ($n_{\text{female}} = 6$; $n_{\text{male}} = 9$) voluntarily participated in this study. The sample comprised 13 Olympic and two Paralympic athletes from individual sports (kayak slalom, swimming, taekwondo, athletics, kayak flatwater, judo, road cycling) and team sports (rowing, kayak flatwater). Among these, three were already qualified for the Olympic Games at the time of the interview. All athletes were included in the Tokyo 2020 Integration Project of the Portuguese Olympic and Paralympic Committees, which includes athletes who were already in qualifying conditions for the Olympic Games.

Instruments

Data were collected through a semi-structured individual interview, which was developed based on the goals of this study and included five main topics: Perceptions about the Pandemic, the Postponement of the Olympic Games, Training at Home, Future Perspectives and End of the Lockdown. The questions were formulated without following a specific order, allowing the participants to freely answer. Moreover, probing questions were also used to clarify certain topics, as suggested by Queirós and Lacerda (2013). Some examples are: "Can you be more specific?" and "Can you give me an example?".

To investigate which coping strategies athletes used to deal with the restrictions of the pandemic, we asked questions such as: "Have you kept the

motivation for training during all this time? If yes, how did you do it? If you didn't, what strategies did you use to deal with it?"

The interviews were conducted through digital means, mainly using the Zoom platform, a videoconference platform available for free. The use of Zoom allowed assuring the quality of data collection, as well as recording the interview for further analysis. In cases in which it was not possible for the participants to use this platform, interviews were conducted using alternative digital media. The interviews were conducted between August and December of 2020.

Procedure

Participants were recruited via personal contacts of the authors of this study, as well as through an email request sent to the Portuguese Olympic Athletes Commission. All athletes were asked to participate in an online interview conducted by the main researcher to collect data for the present investigation. This study was approved by the Ethical Commission of the authors' institution (CEFADE 17 2021) and was conducted following its ethical guidelines, as well as the guidelines of the Helsinki declaration and its subsequent revisions. All participants were informed about the purpose of the research and gave verbal and written consent to participate in the study and record the interview for future analysis. They were also informed of the possibility of leaving the interview if they wanted to.

Data Analysis

Based on the methodology and methods used in this study, data analysis was performed through content analysis of the interview transcripts. This analysis included several steps of reading, exploring and coding, as suggested by Bardin (1977). Therefore, *a priori* and emerging categories were used in a complementary way, thus combining the deductive with the inductive methods. The NVivo 11 software was used to facilitate data organization.

All 15 recorded interviews were transcribed verbatim and read by the researcher involved in this study. Codes were assigned to each participant to ensure confidentiality throughout the analysis process. The unity of analysis was

defined by quotes or paraphrased quotes representing a meaningful point or thought (Bardin, 1977; Gould et al., 1999). One researcher listed all the coping strategies referred by athletes, making an inventory, as proposed by Bardin (1977). Afterwards, following the second step proposed by the same author, classification of these coping strategies was made, grounded on coping strategies obtained on a literature review (Skinner et al., 2003), which described 400 ways of coping, as well as other relevant perspectives on the area of coping (Folkman & Lazarus, 1985; Lazarus & Folkman, 1984). Additionally, major categories were created based on the five types of coping in sport suggested by Nicholls and Polman (2007), namely: appraisal-focused coping, approach coping, avoidance coping, emotion-focused coping and problem-focused coping. The previous subcategories were included in the major categories, based on the descriptions and proprieties of each one. The final analysis table, including all categories (types of coping) and subcategories (coping strategies) is presented in Table 3.

Table 3 also shows the frequency that athletes reported each coping strategy. Although the qualification of qualitative data is avoided by many qualitative researchers (Andersen et al., 1997), Krane et al. (1997) argued that it depends on the purpose of the study. In some situations, it may be important to provide frequency counts of data themes, such as when conducting a content analysis. Bardin (1977) advocates the use of frequency when the significant appearance of the unity of analysis provides useful information for interpreting reality. Despite the equal value of all the athletes' experiences, this information can enlighten the most common strategies reported in the transcripts for further discussion.

Trustworthiness

In order to increase the reliability and trustworthiness of the data, some steps were taken in every phase of the analysis process, as suggested by Elo et al. (2014). The authors started by discussing the data collection method to ensure that it was the best approach to answer the research question and to collect the

Table 3. Coping strategies reported by athletes on the transcripts, falling into major types of coping.

Type of Coping	Coping Strategy	References
<i>Appraisal-focused coping</i>		64
	Acceptance	19
	Looking for the positive side of negative events	36
	Minimization	2
	Reappraisal	7
<i>Approach coping</i>		81
	Adjusting to the constraints	31
	Developing new routines	7
	Maintenance of effort	9
	Learning new skills and procedures	6
	Negotiation/compromising	26
	Self-improvement	2
<i>Avoidance coping</i>		17
	Denial	2
	Disengagement	3
	Distraction	6
	Situational Avoidance	1
	Suppression	5
<i>Emotion-focused coping</i>		58
	Finding alternative goals or channels of gratification	15
	Focusing on previous goals	14
	Physical Exercise	3
	Relaxation	2
	Remaining confident	3
	Rumination	1
	Seeking emotional support	7
	Self-encouragement	6
	Self-instruction	1
	Substitution of rewards	5
<i>Problem-focused coping</i>		28
	Drawing on past experiences	4
	Information seeking	2
	Problem-solving strategies	16
	Seeking instrumental support	6

most suitable data for analysis. It was ensured that the sample was appropriate and allowed data saturation. The unity of analysis was chosen to accommodate all the important information.

During the coding process, the first researcher was responsible for the analysis and the other researchers carefully followed the whole process of categorization. An agreement was ensured through multiple meetings with the authors of the study with the purpose of discussing and debriefing any divergent opinions concerning the categorization (Creswell, 2013; Elo et al., 2014). The second author served as devil's advocate, an individual who keeps the researcher honest; asks hard questions about methods, meanings and interpretations; and provides the researcher with the opportunity for catharsis by sympathetically listening to the researcher's feelings (Lincoln & Guba, 1985).

As an additional step to ensure trustworthiness, a random interview was coded by the second author, to find the inter-rater agreement and calculate Cohen's kappa. This analysis revealed a coefficient of .91, which suggests a "very good" degree of agreement (Altman, 1991).

Results

The analysis of the transcripts revealed that the five types of coping suggested by Nichols and Polman (2007) were used by athletes, with all athletes reporting the use of appraisal-focused coping and approach coping styles, with a great expression even on its subcategories. Table 3 presents the 29 different types of coping strategies extracted from the transcripts and their organization into higher-order categories. As can be observed, the avoidance coping style was the least reported in the athletes' narratives. Of the specific coping strategies used, "looking for the positive side of negative events" ($n = 36$), "adjusting to the constraints" ($n = 31$), "negotiation/compromising" ($n = 26$), and "acceptance" ($n = 19$) were the most present strategies in the athletes' narratives. On the other hand, "self-improvement" ($n = 2$), "denial" ($n = 2$), "relaxation" ($n = 2$), "information-seeking" ($n = 2$), "situational avoidance" ($n = 1$), "focusing on other goals" ($n = 1$),

“rumination” ($n = 1$), and “self-instruction” ($n = 1$) were reflected in a much smaller number of transcripts.

Appraisal-focused coping

The higher-order category of appraisal-focused coping reflects the athletes’ re-evaluation of a stressful situation to reduce its importance. Coping strategies included under this dimension can be observed in Table 3. The specific coping strategy most mentioned by athletes within this dimension was “looking for the positive side of negative events”. This strategy reflects active attempts to change one’s view of a stressful situation to “see” it in a more positive light, as shown in this quote:

As we realized that it was postponed [the Olympic Games], we looked into the positive side of it. It will be one more year to practice, a year to improve and that is the way it has to be, we are practising and that is it. (Athlete 8)

Another strategy used by athletes within this dimension, with also a great number of references, was “acceptance”, which corresponds to making an effort to accept the problem.

It is what it is, knowing that we must do it and that’s it. Just like other people had to continue to work from home and reporting their work, we also had to continue our work and there was no other way to do things. The Olympic Games will continue to happen, qualifying is still around the corner and there was no point in thinking about things differently. (Athlete 3)

Approach coping

Approach coping reflects the athletes’ efforts to confront the source of stress and deliberately attempting to reduce it. Coping strategies conceptualized under this dimension are presented in Table 3. A great number of athletes tried to “adjusting to the constraints” of the situation. This strategy includes active attempts to adapt to the situational constraints caused by the pandemic.

Regarding technical training, I was unable to do the way I was used to but it allowed me to do some speed and jumping technique stimulus because, as a triple jump athlete, I do triple jump and so, it was possible to do some things in the garage. It was also possible to do some things on the streets, but it was just a few things... very little stimulus, every little bit of stimulus that was possible to be done, I did. (Athlete 4)

A lot of them also tried to do a "negotiation" with the situation, actively attempting to work out a compromise between the priorities of the individual and the constraints of the situation:

Okay, it was again another month of adaptation and of course, it changed a lot of things. On the other hand, I managed to change my residency year, and now, I wasn't counting on training twice a day and so intensely while doing the residency year but... it has to be! (Athlete 3)

Avoidance coping

Avoidance coping incorporates both behavioural and cognitive efforts to avoid a stressful situation. Coping strategies conceptualized under this dimension can also be seen in Table 3. Some of the athletes interviewed revealed that they tried to "distract" themselves from the situation. This is the strategy most mentioned within this dimension and includes efforts to avoid thinking about the problem by engaging in alternative pleasurable activities. For example, one athlete mentioned the use of this strategy in the following quotation: "I kept entertaining myself with other things, I tried to keep myself busy but, I was already starting to feel the need to get out of the house" (Athlete 5).

Emotion-focused coping

The dimension of emotion-focused coping included active attempts to deal with the emotional distress associated with the situation. Like the previous dimensions, coping strategies conceptualized under this dimension can be seen in Table 3. The transcripts revealed that athletes tried to "find alternative goals or

channels of gratification” to keep motivated. This is the strategy with greater expression within this dimension and it is explicit in the following narrative of one of the athletes:

As I told you, I had to find some motivation. For example, I sometimes played games with my daughter telling her, "A. come here next to daddy, we're going to train together now." And I tried to self-motivate, with other things that I had nearby, to do some sit-ups, some push-ups... Regarding the muscle strengthening work, with that, yes, I had to have some flexibility in order to be willing to do anything. (Athlete 10)

Another widely used strategy within the emotion-focused dimension was “focusing on previous goals”, which is the effort to focus even more on goals to deal with the emotional state. This can be evidenced in the following quotation: “... it is being focused and think about the goal... and practice. Practice until the [Olympic] Games and that is what I am focused on right now.”

Problem-focused coping

This larger category includes attempts to alter the stressful situation and doing something to relieve the problem. Coping strategies conceptualized under this category can also be seen in Table 3. Athletes revealed to use some “problem-solving strategies”, the strategy with most references, which included both behavioural and cognitive strategies designed to eliminate the source of stress by changing the stressful situation: “... the way is basically.... trying to understand what is going on in each phase, even when things go wrong. And see what went wrong to be able to overcome it” (Athlete 5)

Discussion

The purpose of this study was to identify the strategies used by athletes to cope with the pandemic, the lockdown and the Olympic Games postponement. Overall, findings suggested that athletes used a wide variety of different coping strategies to deal with this unprecedented and uncertain situation, instead of

focusing on a single approach or strategy. This highlights and supports the individual, dynamic and complex nature of athletes coping experiences as stated by Folkman and Lazarus (1985). These findings are consistent with the literature that suggested that athletes can employ several coping strategies, isolated or in combination to deal with a specific stressful situation (Didymus & Fletcher, 2014; Folkman & Lazarus, 1985; Gaudreau & Blondin, 2004; Gould et al., 1993; Holt & Hogg, 2002; Nicholls et al., 2009).

All 15 athletes found their specific way to deal with the situation, but all of them seemed to cope with the constraints of the pandemic and the postponement, using different types of coping in a complementary way. “Looking for the positive side” and actively “adjusting to the constraints” seemed to be the most used strategies by athletes. They also had to do active attempts to work out a “compromise” between their priorities and the constraints of the situation. The most used strategies were all included in the approach coping and appraisal-focused coping styles. These results are consistent with those observed by Szczypińska et al. (2021), who found that athletes applied cognitive and behavioural coping strategies such as positive re-evaluation, planning, acceptance and active coping to deal with the pandemic.

Studies show (Kirby et al., 2021; Szczypińska et al., 2021) that when the individual is unable to influence the change of the stressful situation, as in the pandemic event, positive re-evaluation is associated with a lower intensity of stress and the use of accommodative and appraisal strategies is linked with positive outcomes of mental health and wellbeing during the pandemic. Even before the pandemic, cognitive reappraisal was found to be an effective strategy to deal with stressful encounters (Nicholls et al., 2006).

These results, with athletes adjusting to the constraints of the situation and also finding a compromise between the demands and available resources can also be explained by the experience of elite athletes in dealing with a lot of psychological demands during their regular training and competition routines. More experienced athletes and ones with a greater level of emotional maturity tend to learn more effective ways to deal with the situation, being able to select coping strategies associated with an adaptative outcome and became willing to

compromise and adjust to the constraints when they need to (Daumillier et al., 2021; Gaudreau & Blondin, 2004; Nicholls et al., 2015; Nicholls et al., 2007). Athletes' past experiences were now the basis to deal with this stressful situation. Indeed, some participants have mentioned this belief during the interviews, reporting that they have "drawn on past experiences" to deal with this situation. The coping strategies most reported by the Portuguese elite athletes are also similar to the results found by Jarego and colleagues (2021) with Portuguese adults from the general population, who also adopted acceptance, planning and active coping to deal with the national lockdown.

Emotion-focused seemed to be the type of coping with the greater set of strategies referred to by the athletes. This can probably be linked to the fact that the pandemic was a situation that we cannot control (Li et al., 2020). Therefore, athletes directed their coping strategies to themselves and their emotional distress (Nicholls & Polman, 2007), instead of directing their efforts to the situation or the perceived problem. Emotion-focused coping aims to minimize distress and, with numerous ways to do so, a wide range of responses can be found (Carver & Connor-Smith, 2010). These findings are also in line with those found in the literature, where athletes used emotional strategies to deal with the COVID-19 pandemic (Leguizamo et al., 2021).

It is interesting to find that, although this is a situation no one can control, and in this type of event, an individual commonly copes by self-regulating, our athletes also expressed the use of problem-focused coping, specifically problem-solving strategies, to deal with the lockdown, directing their coping efforts to the problem as well. This strategy is found to be effective at alleviating stress, by proactively dealing with the stressors encountered by athletes (Nicholls et al., 2016). According to Nicholls et al. (2007) highly qualified athletes, being used to deal with stressful encounters, often use problem-solving strategies in this manner. Although the overall situation cannot be controlled or managed by the individual, some stressors can be manageable, such as the conditions to practice or the training plan, making it possible to solve some of the problems that they encounter during this period, thus alleviating some of their stress.

Athletes also seemed to prefer the use of other strategies rather than avoidance. It seems that athletes are used to confronting the source of the stress and find ways to regulate themselves or re-evaluate their experience, instead of avoiding thinking or dealing with the situation. The results of Australian athletes reported distancing from sport to deal with the lockdown and the postponement. However, this was not found in our results, contrasting the experience of these Portuguese athletes with the ones reported by Oblinger-Peters and Krenn (2020). The lower frequency of avoidance coping strategies found in our results, can be explained probably based on their experience as elite athletes, who are used to deal and cope with stress (Daumillier et al., 2021; Gaudreau & Blondin, 2004; Richards, 2012). Athletes are used to actively coping with stress (Polman, 2012). Research shows that problem-focused strategies and engagement-related coping strategies are most used than avoidance or disengagement-related coping strategies (Nicholls et al., 2012; Yih et al., 2020).

Looking at the results and summarizing the coping strategies most referred to by athletes to deal with the stressful encounters faced during the lockdown and the pandemic caused by COVID-19, it seems that all of the most present strategies in the athletes' narratives (looking for the positive side of negative events, adjusting to the constraints, negotiation/compromising, acceptance) are the ones literature sees as most effective and positive ones, promoting positive emotions, superior subjective performance and adaptative results (Nicholls et al., 2012; Yih et al., 2020).

Based on these results, from an applied perspective, it seems appropriate to intervene with athletes, from the beginning, to help them cope with different types of situations. Knowing that coping is a skill that can be learned or acquired with experience (Tamminen & Holt, 2010), athletes would benefit from learning to manage different types of stressful situations, not only as athletes but also as a person.

Conclusion

To conclude, it is important to highlight that this pandemic situation provided a one-time opportunity to study athletes' adaptive struggles in the face of such an uncertain environment (Rettie & Daniels, 2021). The Olympic Games happen every four years invariably but were postponed for the first time due to the constraints and limitations caused by the COVID-19 pandemic. No one was prepared or expected such a significant change in the sports world.

These results emphasize the importance of sport psychology, which must be integrated with the other areas of training to promote a better experience for all athletes, regardless of their level of competition. These findings could now be used to develop a more adequate psychological intervention for athletes in future encounters with stressful situations, promoting strategies that help them minimize the impact of negative events. This uncontrollable situation is similar to other events that athletes experience over during their careers. Therefore, it is important to help athletes transfer the new skills learned during this situation to other stressful encounters. Nonetheless, it should be noted that this study focused on elite athletes, who are used to cope with stress. It is now important to teach young athletes to deal with the stress and the changes caused by the pandemic, as we still have a long way ahead of us.

Although this study offers an understanding of Portuguese elite athletes' coping styles during the lockdown, some limitations should be considered. First, because the interviews were conducted after the first lockdown in Portugal, participants had to recall their past experiences. Although it is possible for the people interviewed to offer a retrospective of events (Bogdan & Biklen, 1999), it would be richer if the data were collected at the specific moment of lockdown to avoid possible effects of memory decay (Nicholls & Ntoumanis, 2010). Additionally, it would also be interesting to perform longitudinal studies, interviewing athletes over the course of the pandemic in order to capture the dynamic nature of coping strategies and how these evolve over time (Lazarus, 2000). Second, the present study does not investigate the efficacy of the coping strategies used. Future studies should attempt to include the same athletes (as well as those who did not qualify for the Olympic games) and explore coping

efficacy after the Olympic Games and after all the preparation and competition process. This would certainly provide important cues about the efficacy of the coping strategies used by these athletes from their point of view.

Finally, the sampling of our study was not representative of the population of Olympic and Paralympic athletes. Therefore, findings must be interpreted with some caution without general affirmations about our population. However, results provided important information about these athletes' experiences and gave practitioners important cues for future psychological intervention during uncertain and unpredictable events. Although this study only includes 15 athletes from the Tokyo 2020 Integration Project of the Portuguese Olympic and Paralympic Committees, we hoped that it provided an important contribution to our knowledge about psychological adaptation during the COVID-19 pandemic, as well as demonstrated the importance of developing interventions directed at promoting coping strategies and mental health competences in all athletes. The effectiveness of this type of programme promoting coping effectiveness has already been studied (Reeves et al., 2011), with athletes reporting satisfaction with the development of their coping skills and being able to transfer these coping skills into other situations.

We also hope that the conclusions derived from this research would help other athletes and sports agents to prevent and support mental health issues associated with stressful situations in the future.

General discussion and conclusion

The main purpose of the present research was to explore the perceived impact of the pandemic on the Portuguese Olympic and Paralympic Athletes, understanding the way they appraised the situation, what emotions they experienced and what coping process they used to manage their emotions during this period. Grounded on a cognitive-motivational-relational perspective (Lazarus, 1991b) we divided the present research into two papers, the first one regarding the perceptions and emotions of the athletes and the second one the coping strategies used by the same athletes.

The first paper suggests that athletes have multiple perceptions about the impact of the pandemic regarding the Olympic Games, their physical and health conditions, their personal and social life and their sports life, including training and competition. It seems that athletes perceive this event mainly in a negative light, referring to aspects such as losing technical and physical condition, not being able to compete, changes in personal lives and demotivation. However, they were also able to identify positive aspects, such as spending time with their families, investing in other things (besides sports) and taking the opportunity to improve. Regarding the emotions reported, we found a greater variability on negatively toned ones, with anxiety having a greater expression. This situation was appraised as a stressful event, with majorly negative perceptions. This can be linked to the number of negative emotions felt by the athletes during this phase as explained by the cognitive-motivational-relational theory (Lazarus, 1991b, 2000).

We have also asked athletes to define this period with a meaningful word. Adaptability was the one that was most mentioned by the participants. This result is actually the key point to the second paper, which investigates how athletes adapted or coped with the situation they perceived as stressful in many ways. The results of the second paper revealed that athletes used different types of coping to deal with the lockdown and the emotional reactions of the postponement of the Olympic Games, summarizing 29 different types of strategies. The results suggest that athletes are used to confronting the source of the stress and find ways to regulate themselves or re-evaluate their experience, instead of avoiding thinking or dealing with the situation. Adjusting to

the constraints, looking for the positive side of negative events, negotiation/compromising and acceptance were founded as the most used coping strategies within this sample.

Both papers emphasize the impact of the pandemic situation on the participants, and highlight the individual experience of each one, with different perceptions about the event, different emotional experiences and a variability of coping strategies. It is interesting to analyze the connection between the two studies. When asked to describe the situation they have lived in in one meaningful word, without any orientation, the one with greater frequency was adaptability. This can mean that athletes saw this as a situation where they needed to adapt to effectively pursue their goals, and actually considered this as a period they had to use their resources to cope with the situation. Elite athletes are used to cope with adversity and stress (Nicholls, 2016; Polman, 2012) so it is no surprise that they perceived this as a situation they had to adapt to.

Findings from these studies provide important conclusions that should be considered for several reasons. The first, is the importance to use qualitative research to understand the individual experiences of different populations and different persons within that population. Although our results are not representative of the population of all of the Portuguese Olympic and Paralympic Athletes, it gives us valuable information about athletes' perceptions. It can be linked with previous studies on athletes and the COVID-19 pandemic all around the world (e.g., Di Fronso et al., 2020; Jaenes Sánchez et al., 2021; Olinger-Peters & Krenn, 2020), but also highlight the particularities of the Portuguese athletes, enriching the field with new results and perspectives that can be useful in the future.

The major aspect to emphasize is the opportunity that this situation has created to the research field, in order to understand human adjustment and adaptability, as well of athletes' adaptability to a stressful and uncertain situation. The ultimate goal is to be able to apply the scientific knowledge created in the last year to other situations, also helping athletes to transfer these experiences to future stressful encounters. From an applied perspective, this study shows the importance of creating awareness of the appraisal-emotion-coping relation, in

order to develop valuable skills to apply in the future. Knowing how an individual appraises a certain situation and creating emotional competence to recognize the emotion felt and also promoting coping skills to manage those emotions would provide athletes, coaches and other sports agents the knowledge to help athletes in future stressful situations.

In sum, the Sports Psychology field has now an important role in how to transfer these findings to regular training. Sharing the results and creating a psychological skills training programme focused on these aspects can be a useful tool to improve performance. It seems important to develop mental skills programmes not only for elite athletes but also for younger ones.

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Appendices
