The experience of pregnancy and motherhood in the career of Brazilian's sportswomen: a qualitative study

La experiencia del embarazo y la maternidad en la carrera de las deportistas brasileñas: un estudio cualitativo

Livia Gomes Viana-Meireles*, Juliana Aparecida de Oliveira Camilo**, Hiago Veras Gomes***, Livian Valéria Oliveira da Silva*, Eline Sousa Paz*, Diego Cardoso Rodrigues*, Domingo Palacios-Ceña****

*Universidade Federal do Ceará (Brazil), **Universidade Federal da Bahia (Brazil), ***Universidade Federal do Pará (Brazil), ****Universidad Rey Juan Carlos (España)

Abstract. Motherhood is a period there is a deconstruction of one identity and reconstruction of another, including changes in self-concept, commitment, and learning. For athletes who become mothers, these changes also occur and impact in their career. We aim to describe the experience of being pregnant for a group of Brazilian athletes, understanding the impact of maternity on the career and the postpartum for these women. A qualitative descriptive and exploratory study was conducted followed the guideline Standards for Reporting Qualitative Research (SRQR). We are using the semi-structured interviews with nine Brazilian athletes all of whom were professional athletes at the time they became pregnant. Maximum Variation Sampling and the snowball technique were used. The analysis was done using Iramuteq software, which performed Descending Hierarchical Classification (DHC) and Similarity Analysis. The nine athletes had a mean age of 38.3 years (SD: 5.5 years), from different levels and sports, and all had at least one child. We identified 488 text segments, which resulted in two branches, divided into five classes: History in sport (class 2); Pregnancy planning and immediate postpartum (class 5); reconciling the routines of athlete and mother (class 3); Social support narrative (class 4); Childcare (class 1). The findings indicate that athletes can have emotional ga ins in reconcile motherhood with their sports careers to the extent that they have social support, relative planning to become pregnant, and reconcile their athletic routine with baby care.

Keywords: Athletes; Pregnancy; Maternity, Sportswoman; Qualitative research; Career transition; Iramuteq.

Resumen. La maternidad es un periodo en el que se produce la deconstrucción de una identidad y la reconstrucción de otra, lo que incluye cambios en el autoconcepto, el compromiso y el aprendizaje. Para las atletas madres, los cambios impactan en su carrera. Pretendemos describir la experiencia de estar embarazada para un grupo de atletas brasileñas. Un estudio cualitativo descriptivo y exploratorio se llevó a cabo siguiendo las normas de orientación para la presentación de informes de investigación cualitativa (SRQR). Se utilizaron entrevistas semiestructuradas con nueve atletas brasileñas, todas ellas deportistas profesionales en el momento de quedarse embarazadas. Se utilizó el Muestreo de Variación Máxima y la técnica de bola de nieve. El análisis se hizo con el software Iramuteq, que realizó Clasificación Jerárquica Descendente (DHC) y Análisis de Similitud. Los nueve deportistas tenían una edad media de 38,3 años (DE: 5,5 años), pertenecían a distintos niveles y deportes, y todas tenían al menos un hijo. Se identificaron 488 segmentos de texto, divididas en cinco clases: Historia en el deporte; Planificación del embarazo y posparto inmediato; Conciliación de las rutinas de atleta y madre; Narrativa de apoyo social; Cuidado de los hijos. Los resultados indican que las atletas pueden tener ingresos emocionales en la conciliación de la maternidad con sus carreras deportivas en la medida en que tienen el apoyo social, la planificación relativa para quedarse embarazada, y tener la libertad de compaginar su rutina deportiva con el cuidado del bebé.

Palabras clave: Deportistas; Embarazo; Maternidad, Mujeres Deportistas; Investigación cualitativa; Transición professional; Iramuteq.

Fecha recepción: 11-10-23. Fecha de aceptación: 22-12-23

Livia Gomes Viana-Meireles

liviagviana@ufc.br

Introduction

The motherhood, as a cross-cutting concept, a human experience regulated by unwritten laws (Rich, 2019), in which there is deconstruction of one identity and reconstruction another, including changes in self-concept, commitment, learning, recovery and the search for organization in the routine after child's birth (Martinez-Pascual, et al., 2017; McGannon, et al., 2015). The motherhood can be understood from many intersections (social, gender, economic, cultural, racial) and, according to Adrienne Rich, motherhood is an institution that belongs not only to women, but to the society (Rich, 2019).

The sports context is one social intersection that motherhood can be understood, because we inhabit a world in which sport is an international, social and cultural phenomenon, and it is regularly associated in many spheres of

society in different social contexts (Jarvie & Thornton, 2012). So, sports can provide an important space to highlight the complexity of contemporary motherhood (Spowart & McGannon, 2023). When an athlete becomes a mother, many changes occur. In some cases, motherhood and competitive sport will hardly happen simultaneously for many sportswomen, thus getting pregnant and being a mother is almost always associated with the end of the sports career (Davenport, et al., 2022; McGannon, et al., 2012).

It is important to note that the representation of women in general, and in sport, is based on gender stereotypes that see women in two roles: social roles (with aesthetic value) or family roles (caring for and raising children) (Monserrat-Gauchi, et al., 2024). These stereotypes of beauty, seduction, gentleness, self-sacrifice (Fernandez, 2020), as well as the social expectation that when a wom-

an becomes a mother, she will dedicate herself to looking after the children and the home (Rodríguez, et al. 2022) influence the athlete's perspective of understanding motherhood in her career.

However, the sports women, from recreational to the elite level, have demonstrated that motherhood does not the signal of the end of sport engagement (Spowart & McGannon, 2023). The Massey and Whitehead's (2022) study points out that over the time a renegotiation of athlete identity and mother identity occurs as a long-term process (begin before the pregnancy and lasting at least until this new identity is fully developed). Motherhood and competitive sport can have a reciprocal effect on the two identities of this athlete-mother (Tekavc et al., 2020).

Some studies point out that the main challenges faced by athletes when trying to reconcile motherhood and their careers are difficulties in adjusting the childcare routine and the training in postpartum, sleep deprivation, extreme fatigue, as well as lack of family and club support upon return (Culvin & Bowes, 2021; Darroch et al., 2019; Davenport et al., 2022; Massey & Whitehead, 2022; McGannon et al., 2015). The social support received by the athlete is fundamental at different stages of career, especially from family, coaches and teammates (Maciel, et al, 2021). However, few studies refer to this support specifically for athletes who are mothers, which points to an important gap to be analyzed.

Different studies report the fears and doubts about been pregnant during the sport career, but also find an emotional strengthening in training and competition after motherhood: better management of emotions, greater resilience, more patience, more responsibility, and greater ability to adapt to change (Martinez-Pascual, et al. 2017; Tekavc, et al, 2020).

Studies on motherhood and sport in South America are still scarce. In a review carried out by Silva et al (2023), the authors identified that most of the studies on the subject are from Canada, the United Kingdom, the United States and European countries. A study which aimed to analyze barriers, facilitators and strategies that influence the participation of women in management positions in sports federations in Chile, the authors found that the difficulty of reconciling family demands such as mother-hood and childcare was a barrier identified only for women, which points to a large gender gap in the sports context (Foppiano-Vilo, et al., 2022).

Some of studies deal with the fragility of female athletes' employment contracts. Until 2018, for example, Spanish athletes had an anti-pregnancy clause in their contracts with clubs, meaning that if the athlete became pregnant during the term of the contract, the clubs could penalize then and not provide healthcare coverage (Salinas, 2020). In 2020, the Association for Women in Professional Sport asserted the rights of female athletes by stipulating that labor contracts should eliminate these anti-pregnancy clauses (Frabotta, 2021). In Brazil, labor insecurity is still a reality, as only soccer athletes have rights guaranteed by

law, but since 2020, some discussions about maternity leave have been gaining ground in the Brazilian sports context. On March 14, 2023, progress was made in this guarantee of rights with the approval of Law 229/2022 obliges clubs to guarantee maternity leave for athletes in case of pregnancy during their contract. Some clubs are already complying with this guarantee and the federal benefit also provides for maternity leave (Silva, et al., 2023).

To understand the perspective of being a mother and an athlete on high-performance athletes, we took as a basis the holistic model of sports career (Wylleman, et al., 2013). This model understands an athlete's career from a global point of view, in the interrelation between different spheres that affect the career: athletic (ranging from sports initiation to high performance), psychological (from childhood to adulthood), psychosocial (the relationships established throughout the career with family, coaches, and sports partners), and academic/professional (reconciling the career with formal education from school to university and professional life). All these levels are common but differ in each sport and are influenced by different events that occur in the athlete's life, including both expected events (physical and cognitive maturation, for example), and unplanned events (injuries, family problems, etc.). This holistic view contributes to building onward on the unique reality of each athlete. It is a model with a broad perspective and integrates all levels that are important to understand the impact of pregnancy on the athletes' career (Cecić Erpič, et al, 2004; Santos & Alexandrino, 2015).

Therefore, the present study aims to describe the experience of maternity for a sample of Brazilian athletes of various sports modalities and different competitive levels.

Methods

We followed the guidelines for conducting qualitative studies established by the Standards for Reporting Qualitative Research (SRQR) and the Consolidated Criteria for Reporting Qualitative Research (COREQ) (Tong, et al., 2007).

Design

We conducted a qualitative descriptive and exploratory case study (Baxter & Jack, 2008; Fàbregues & Fetters, 2019) through in-depth interviews. Qualitative methods are useful for understanding the beliefs, values, and motivations that underlie individual behaviors (Creswell, 2007). In this case study, different participants (Brazilians sportswomen) were connected from the study phenomenon (maternity) (Baxter & Jack, 2008; Creswell, 2007).

Research team and reflexivity

Seven researchers (four women and three men) contributed to this study, four of them have experience in qualitative research (DPC, JAC, LGVM, and HVG) and the others (ESP, LVOS, and DCR) contributed with data

collection, transcription of interviews and data analyses. Before the study, the position of the researchers' theoretical frameworks, beliefs, previous experiences, and motivation from the study was established (O'Brien, et al., 2014).

Context

Most athletes in Brazil have weak employment contracts that do not grant rights when female athletes become pregnant. Since 2020, some discussions about maternity licenses have gained space in the Brazilian sports context. In May 2023, Bill 229/2022, which obliges clubs to guarantee maternity licenses when an athlete becomes pregnant during her work contract, was approved by the Committee of Economic Issues (Machado & Doederlein, 2023). However, the athletes who participated in this research were not contemplated with these changes because their pregnancies occurred before the law was enacted.

Participants, sampling strategy, and inclusion criteria

For this qualitative research, two sampling strategies were used. First, the technique of Maximum Variation Sampling was conducted by selecting cases (individuals) based on their ability to provide relevant information in response to the research questions (Teddlie & Yu, 2007). In this phase, about 20 Brazilian Olympic athletes were contacted through coaches and sports psychologists. Only three athletes returned and agreed to participate. After the first three interviews, a second sampling strategy was applied, the snowball technique, in which one participant indicates another athlete within the defined inclusion criteria (Kaplan, et al, 1987). In this study, pragmatic considerations were applied to recruit the available participants (Vasileiou, et al. 2018). Therefore, the sample size was determined by the number of accessible individuals willing to provide information. Inclusion criteria for this study consisted of elite sportswomen who were older than 18 years, who had pregnancy during their professional sports career, who participated for at least two years in competitive sports at the national or international level and have sports as their main source of income.

Data Collection

Data collection consisted of semi-structured interviews based on a question guide (Table 1) created based on the Holistic Model of Sports Career (Wylleman, et al., 2013). The guide directed athletes to talk about the story of their sports career before, during, and after pregnancy, and how pregnancy made them adapt to the different domains of their lives: sports, psychological, psychosocial, professional, and financial. All interviews were conducted by one of the researchers with experience in interviews (LGVM) and occurred between July 2020 and December 2022, online, via Google Meet in a quiet, uninterrupted space. They were

recorded and transcribed by two independent researchers (LGVM, HVG). Nine interviews were conducted, with about 350 minutes of recording time, with a maximum duration of 63 minutes and a minimum of 22 minutes.

Table 1. Semi-structured interview guide

Domain	Questions
Sporty	Talk about your career, when did you start in the sport and
	when did you start competing? What are the main titles,
	championships and highlights of your career?
Psychosocial	How was the decision to get pregnant? How was the reaction of
	coaches and other athletes/team, family members (husband,
	father, mother, other children, etc)?
Health	During the pregnancy, how did you feel? After the birth, how
	did you feel and how long after did you return to training and
	competitions?
Professional/	How was your professional relationship before, during and
Financial	after pregnancy?
Personally	How do you reconcile involvement in sport and your new role
	as a mother?

Data analysis

Descriptive analysis (mean and standard deviation) of sociodemographic data was performed using Microsoft Excel. All interviews were transcribed, revised to standardize terms and correct typos, and organized into a single file that was later imported to Iramuteq software (Ratinaud, 2009), hosted in R software (R Development Core Team). This software explores information from texts through processing and statistical analysis. Iramuteq makes the following analyses:

- a) Descending Hierarchical Classification (DHC), in which the text segments are classified according to their respective words, and the set is divided based on the frequency of the words (Camargo & Justo, 2013).
- b) Similarity analysis, which is based on graph theory and identifies co-occurrences between words. The words are grouped by their similarity into classes. The software performs a statistical analysis using the Chi-square test which serves to quantitatively assess the significant relationship between word frequency and the total corpus of interviews (Camargo & Justo, 2013).

Table 2.
Criteria's for guaranteeing trustworthiness

Criteria	Techniques performed
	Investigator triangulation: each data source was ana-
	lyzed. Team meetings were performed during which
Cwadibility	the analyses were compared and themes were identi
Credibility	fied.
	Sampling triangulation; Maximum Variation Samplin
	technique and snowball technique were performed.
	In-depth descriptions of the study performed, provide
Transferability	ing details of the characteristics of researchers, partic
Transferability	pants, contexts, sampling strategies, and the data
	collection and analysis procedures.
	An external researcher assessed the study research,
Dependability	focusing on aspects concerning the methods applied
	and the study design.
Confirmability	Investigator triangulation and sampling triangulation

Quality criteria

The criteria for guaranteeing trustworthiness, as cited by Guba and Lincoln, were followed (Korstjens & Moser, 2018). The techniques performed and the application pro-

cedures used to control trustworthiness are described in Table 2.

Ethical considerations

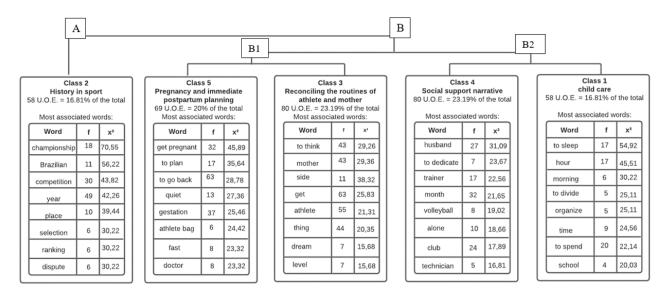
The study respected all ethical precepts for research with human beings, in compliance with Resolutions n° . 466/12 and 510/2016 of the National Health Council. This work was approved in the Ethics Committee of the research department of the Federal University of Ceará under the number 4.339.732. To maintain the anonymity of the participants, they were named P1, P2, P3... P9.

Results

The nine sportswomen had a mean age of 38.3 years (SD: 5.5 years), varying from 27 to 45 years. All participants were professional athletes (Olympic and national levels) at the time of their pregnancy. After pregnancy, only two did not return to the elite sport, whereas seven

returned and won important titles after pregnancy. Four participants were still pursuing their athletic careers at the time of the interview, while five were retired. Five athletes (55%) were married, two were single and two were divorced. The number of children varied between one and two

From the interviews, the themes that represented the experiences of pregnancy and the birth of children were presented from the Descending Hierarchical Classification (DHC) illustrated in Figure 1. The results showed 488 text segments presented through the interviews that resulted in five classes divided into two branches (A and B), one containing class 2 (branch A), which deals with the history of the athlete in the sport. Branch B represents the reconciliation of a sports career and motherhood based on two narratives: emotional (subdivision B1, classes 5 and 3) and rational/operational (subdivision B2, classes 4 and 1).



 $Figure~1.~\textit{Corpus of 488 text segments (70.7\%), classes and list of mains words.~U.O.E = Elementary~Context~Units~Context~C$

Each class was named based on the content expressed by the words grouped by the software and analyzed by the researchers: a) History in sport (class 2); b) Pregnancy planning and immediate postpartum (class 5); c) Reconciling the routines of athlete and mother (class 3); d) Social support narrative (class 4); e) Childcare (class 1).

History in sport (Class 2)

Class 2 emerged from 58 Text Segments (TSs) and represented 16.81% of the relative importance of the participants' speech analysis. The main words associated with this class were: championship, Brazilian championship, competition, year, place, selection, ranking, and dispute. This class included words related to the description of the athlete's career, the reports of the first competitions, the main titles, the initial in the high performance, the routine before the pregnancy and the discovery of the pregnancy.

The interviews showed that all sportswomen perceived their history in the modality as important to planning and preparing for maternity and return to competitive sport. Maternity, for these athletes, is a transformation process in the history of their careers. The participants' reports indicated that athletes who planned their pregnancies based on their sports background (history) and the perception of goals achieved (such as national or international titles won) had repercussions in the way they experienced the postpartum period and the reconciliation between motherhood and sports. I had made every plan in my life until the day I was going to get pregnant, after that, all things would happen. I planned a lot, in all points, including the financial part, which gave me the peace to return the way I wanted (P1). I competed in the 2008 Olympics in Beijing at the age of 30, spent four years saving money, and got pregnant when I didn't get a place in [the Olympics of London, at the age of 34 (P4).

Remembering their sports trajectories was important to situate the pregnancy in their whole career. P6 reported that she planned her pregnancy to occur at the end of her career, , after having gone through all the competitive levels in her sports history, since school games, until participating in two editions of Olympic games.

I went to the best competitions in the world in my modality. The decision to get pregnant was left to the end of my career (P6).

For some athletes, it was necessary to restructure their careers after maternity. Pregnancy was, therefore, an event that provided a transition in their careers, which can be seen when one athlete tells her story in the sport by dividing it into before and after pregnancy and the birth of her son.

Pregnancy planning and the immediate postpartum (Class 5)

This class was responsible for 69 Text Segments and represents 20% of the total. It shows how the athletes planned their pregnancy (or how they report an unplanned pregnancy) and the emotional impacts on their career. The main words related were getting pregnant, planning, coming back, calm, pregnancy, and fast. The content of this class represents the report of adaptation strategies after the baby's birth, i.e., planning for retirement or coming back to competitions, as well as the emotional repercussions of the immediate postpartum period.

The interviews suggest that the path of each athlete's career influences the way she reconciled pregnancy and returning (or not) to high-performance sports. The athletes who had a higher competitive level (World/Olympic) were the ones who planned their pregnancies by preparing themselves financially and socially, thus experiencing pregnancy as another achievement in their career.

She was born in September, and I would only compete the following year so there was no pressure. I wanted to come back as soon as possible because the sooner I return, the better I would be to compete. I got pregnant after the Beijing Olympics. My fiancé and I decided to take advantage of that post-Olympic year to have a child (P3).

Participants who prepared to become pregnant reported that the return to training and competitions after child-birth was also planned. Some wanted to come back as soon as possible because they had an important competition in mind, whereas others reported having thought about stopping competing after the birth of their children but, after everything went as planned, they felt the desire to return to high-performance sports.

Our results showed that even the athletes who initially did not desire to return to competitions wanted to return to training as soon as possible during the immediate postpartum period. However, from a health perspective, there may be unplanned intercurrences in the postpartum period, which can bring unexpected emotional effects.

At first, I had the desire to return as soon as possible,

but my return was very difficult because I had a big episiotomy, and it took me a while to be able to stand up without feeling so much pain. The pain in my body bothered me a lot, it was very intense and wasn't just muscle pain (P7).

The interviews showed that the period after the child's birth was important for them to realize whether they were going to follow the plan. We observed that the athletes who had greater operational support with childcare and the new routine were able to return to competitions more quickly.

Reconciling the routines of athlete and mother (Class 3)

Class 3 was responsible for 80 TSs (23.19% of the total). The content of this class relates the participants' speech to their perceptions as mothers and athletes, focusing on routine changes, returning to training and competitions, or the decision to retire. The words related to this class were: find, mother, side, achieve, athlete, dream, level, among others.

I planned my career because I couldn't be a mother and an athlete because today as a mother, I don't see myself doing both. I congratulate the athletes who manage to continue in high performance. I wouldn't be able to, because they are two things that demand a lot from us: being a mother and being an athlete (P6).

However, when reconciling the two routines (athletes e motherhood), some of our athletes report an impact on body perception and that motherhood brought an emotional gain in their careers, such as a greater ability to deal with frustration, overcome defeats, and feel emotionally stronger:

My first plan was to get pregnant and stop competing, I couldn't see how I was going to have an athlete's life like I thought it was necessary to have and be the mother I would like to be. I thought there wasn't enough time for that. I already felt very accomplished as an athlete, I was tired. But, after having my son, I saw that it was possible. So, the impact of motherhood was more good things, being a mother makes me feel stronger. The physical takes a while to come back, but I see good things, I had a gain in being mentally strong, it was a dream come true to be a mother, and I came back happier with one more accomplishment. My head started to work differently. Motherhood helped me (P1).

In this class, data showed that experience, competitive level, and emotional maturity of the athletes were aspects that contributed to a greater adaptation to the mother and athlete routine, as reported by athletes P1, P3, P4, and P7, who were Olympic/world cup-level athletes and returned to competitions after pregnancy. The athletes who experienced greater difficulty in adapting reported having little social support to help them reconcile with the routine. For some, the return to high performance was more difficult (P2), and, for others, because of the lack of social and financial support, the decision was to stop (P5)

or to compete at lower levels than before pregnancy (P8 and P9). The Olympic athlete, P2, said that "even with little support, I only conquered important things after motherhood. I can't tell you with which hormonal stirrings, but my son is a point of motivation".

If I had support and a follow-up, I could keep training. It's important to be able to maintain motherhood and keep the dream of being an athlete as a profession. Today I am no longer a professional athlete (P5).

Our data show that, for sportswomen to be able to reconcile the routines of mother and athlete, it is important to plan the return to training and competitions and have social support. By being able to reconcile the two routines, the athletes show that they feel stronger emotionally as if the two influence each other.

Social support narrative (Class 4)

This class was expressed by 80 STs (23,19% of the total). The main words were husband, dedicate, coach, month, alone, club, and others. Note that class 3 and class 4 were the most representative of the corpus of analysis. Class 3 featured a more emotional perception of how to reconcile the two routines (how it felt, what was expected, etc.) whereas class 4 showed a more operational perception (who to count on to take care of the child, what time to train, etc.).

The perception of social support highlights how athletes will reconcile motherhood and career. Motherhood is perceived as an obstacle in the athlete's career when she has no social support (family, friends, coaches, financial) to reconcile the routines of athlete and mother, which implies a physical, financial, emotional, and social effort.

It was a very difficult process; I had the support of my husband and my mother-in-law. During the first pregnancy, I thought about giving up, but my husband gave me support and helped me return (P7).

I think that, from the physical perspective, after a woman has a child, she gets stronger, the hormones. I became more mature, which helped me, motivated me to train and compete. Having my husband in competitions together with my daughter was ideal [...]. They didn't interrupt my scholarship at that time and my husband was one of the people responsible for me getting back to playing (P1).

Continuing to receive financial aid from the Brazilian government, added to the help from family members, was perceived as social support for their return.

Childcare (Class 1)

Class 1 was formulated from 58 TSs, representing 16.81% of the total. Important words were sleep, time, morning, divide, organize, schedule, school, night, sleep, deprivation, wake up, etc. This class refers to the practical experiences of adaptation of the athlete to childcare, the difficulty of reconciling the training routine with care, and how they organized themselves to return or retire.

At the beginning I trained, left in the middle of the

training, breastfed, organized the schedules for someone to stay with him, every time was in a different way, my friends helped me. The biggest difficulties in this period of his childhood were sleep deprivation, the organization to be able to train, the lack of money, the lack of rest (P2).

All the interviewed athletes reported that sleep deprivation was the main difficulty in caring for their children and returning to training. That is why the word "sleep" was the most repeated in this class.

Sleep was what broke me up, I didn't sleep. When my daughter was born, the sleep deprivation was terrible, I almost went crazy because the girl didn't sleep, and sleeping for me was the thing I cherished the most. I loved to sleep (P6).

Those sleepless nights, all those logistics that we had to do, made me get to the training and give my maximum, enjoy that moment (P2).

I used to stay up all night, so I would sleep until about 10 o'clock and my husband would stay with my son in the morning, then I would wake up and go out to train (P5).

The return to competitions and training depended on the support the athlete could receive to deal with both lack of sleep and childcare. Therefore, class 4 (social support narrative) and class 1 (childcare) are interrelated.

Some athletes reported that taking their children to training sessions and competitions was the only strategy to reconcile the two, especially for those whose partners were also involved in sports, whether they were coaches or athletes. Those who decided not to take their children tried to organize a support network for this care, and this equation depended on the financial support they had, which allowed planning in this sphere (paying for a nanny, daycare, etc.).

Discussion

History of sport

The participants, in this class, describe significant episodes of their career, events, and experiences as professional athletes, including their pregnancy. According to the Holistic Model of the Athletic Career, the athletic level refers to the pathways that athletes experience during their careers (Wylleman, et al., 2013). For the interviewed athletes, the changes that occurred in their career after pregnancy and the birth of their child required changes in attitudes and new skills, which can be seen as a career transition.

The career transition is a process of coping with demands throughout an athlete's career, and the success of coping lies in the relationship between the barrier to be faced and the athlete's resources (Stambulova et al., 2009). The transition from level to high performance is considered one of the most difficult and challenging and causes many athletes to experience a crisis (Franck & Stambulova, 2020). Authors (Cecić Erpič, et al., 2004) report that an athlete's career transition often coincides with other transitions in life, such as moving from high

school to college, from the junior level to the master's level, and, in this case, becoming a mother.

A transition in a sports career is accompanied by changes in self-identity, the need to redirect energies, and personal and organizational adaptations to the new demands. There is a need for a change in lifestyle and plans, and sometimes this reflects in a change in competitive level (Chow, 2001). The career transition requires the athlete to continuously implement psychological strategies in competitions and have support from the family and sports federation (Behr & Kuhn, 2019; Stambulova, et al., 2009).

Pregnancy is an event that brings change and requires the athlete to transition her career because it marks a period in the athlete's life story. In this way, the athletes in this research that had been in high performance for longer reported experiencing pregnancy as another achievement in their sports trajectory because they had already developed many strategies to adapt and consolidate their careers

When we talk about career transition, pregnancy is rarely mentioned, but, from the athletes' reports, we realize that having a child during their sports career can be considered a career transition for female athletes.

Pregnancy planning and immediate postpartum

In our research, the athletes who planned their pregnancies did it in periods between important competitions, such as the Olympics. In a study with athletes from Slovenia, the best moment to become pregnant also matched the four-year interval between Olympic cycles (Tekavc et al., 2020). The decision to become pregnant involves many aspects of a woman's life, her career, relationships, financial stability, social context, support from her partner and family, and the need to calculate the time to get pregnant, time to gestate, time for the baby to be born, and time to raise the child (Martin, 2017).

The athletes who reported having planned their pregnancy perceived it as another achievement in their career. This feeling of pride was also perceived in the study of Martinez-Pascual et al. (2017), in which Spanish athletes reported that motherhood was seen as a goal of success achieved and something they felt proud of.

Just like in our study, Palmer and Leberman (2009) found that athletes who already had a stabilized career, who were already inserted in high-performance sports, planned the best time to have a child as one that would have the least impact on their career and that increased the likelihood of a successful return after the birth of the baby. The athletes who reported having had an unplanned pregnancy showed more difficulty in returning to competitions and a feeling of less social support in the immediate postpartum period. These results lead us to believe that pregnancy planning can impact the way the athlete will face the gestational and postpartum periods.

The postpartum period is a difficult time in which women face physiological, mental, and emotional chal-

lenges such as lack of adequate sleep, increased stress, and fatigue (Davenport, et al., 2022; Massey & Whitehead, 2022).

Reconciling the routine of mother and athlete and Social support narrative

Many athletes reported how they managed to reconcile the two routines, and some mentioned the adaptations necessary to take care of the baby and return to training. In this return, some athletes perceived an emotional strengthening after the birth of the child. When the athletes found a balance between the two routines (mother and athlete), they perceived emotional gains: better management of sports discipline and emotional state in competitions, more resilience (persevering and focusing on goals despite difficulties), patience, and responsibility, and a greater ability to adapt to changes (Darroch et al. 2019; Martinez-Pascual et al. 2017; Massey & Whitehead 2022; McGannon et al, 2018; Palmer & Leberman 2009; Tekavc et al, 2020).

Motherhood requires a constant adaptation of routine, the development of skills to deal with unforeseen events, and strategies for effective problem solving, and it seems that these skills also help in the sports career. In other words, sports make them better mothers, and being a mother makes them more focused athletes (Appleby & Fisher 2009; Debois et al 2012; McGannon et al, 2018).

In this study, classes 4 and 3 were the most significant because the perception of social support is directly related to the return and adaptation to competitions. Social support including family members (spouses, mother, mother-in-law, siblings) and coaches, sponsors, and clubs is reported as a fundamental aspect for the athlete to be able to reconcile maternity and sport (Darroch, et al. 2019).

The social support is fundamentally for the athletes in general (Maciel, et al, 2021), and more importantly for the mother-athlete. Adequate social support makes it easier for the athlete to overcome different sporting situations, helps to manage stress and contributes to not giving up sporting practice. The social agents with the greatest influence on the athlete are the father, coaches, teammates, and people who have a close, daily relationship with the athlete (Pedrosa, et al, 2012), in the case of mother athletes this includes the parents of the children.

Lack of social support is perceived as a barrier for the athlete to return to sport (Beilock, et al, 2001). After an athlete announces her pregnancy, some clubs may cancel contracts or not renew them, which happened with some athletes in the present sample. Brazilian athletes reported that, when they become pregnant or soon after giving birth, the sponsors and clubs commonly remove their salaries which reflects the labor insecurity experienced by athletes when they become pregnant (Viana-Meireles, et al, 2023; Frabotta, 2021; Salinas, 2020). In a qualitative study with 33 athletes of País Vasco and Navarra found that there are no labor measures to protect athletes and in the opinion of most of the athletes interviewed, Spanish

athletes tend to postpone the decision to become mothers until the end of their careers. However, those who were mothers and returned to competitive sport pointed to the importance of the social network and family support as fundamental to this return (Abajo, et al, 2022). When the athletes receive support and recognition from the clubs, it is seen as something positive and motivates them to return (Palmer & Leberman, 2009).

A socially supportive environment, with good social relationships, including support from significant people outside the sports environment, especially the family, contributed to facilitating the athletes' career development. The development of skills to deal with changes and the athlete's maturity facilitate the necessary adaptations and transitions (like having a child), and social support is a fundamental aspect for the athlete to get good mental health and be open to new experiences (Siekanska & Blecharz, 2020). The woman athlete reconciles her spaces with greater or lesser difficulty depending on her access to resources (internal and external) and the skills developed throughout career. Support, family understanding and trust in the environment are fundamental external resources for sports performance and motherhood is seen as one of the situations in which the athlete needs this support (Selva, et al., 2013).

Childcare

The results presented show that caring for the child will influence the new rules for the sport context because it will demand from the athlete a conciliation of multiple roles (McGannon, et al., 2015). For some, training and competitions will be more efficient if the baby is with them, and, for others, it is better not to bring the child (Sundgot-Borgen et al., 2019).

Getting adequate rest was the biggest challenge mentioned by athletes in this and other studies (Culvin & Bowes, 2021; Darroch, et al., 2019; Davenport, et al., 2022; Massey & Whitehead, 2022; McGannon, et al., 2015; Tekavc, et al., 2020). The reconciliation of training/competition with childcare is compromised when there is no support network and social support (family, coaches, and clubs) (Dietz, et al., 2022; McGannon, et al., 2018; Tekavc, et al., 2020).

In general, society expects women to be the main caregivers for their children and, from a gender perspective, this ethic of care put woman in a triple journey: dedicate to their careers, caring for children and the home (Rodríguez et al., 2022), ends up overburdening women in general as well as athletes. A better division of household activities and childcare is fundamental to returning to the routine in high performance since both routines are very exhausting and require many hours of dedication. Finally, based on the idea of motherhood as institution (Rich, 2019), giving women a public voice, in different contexts, contributes to women gaining more and more control over their bodies, wills and desires. Motherhood will always involve a change in a woman's identity, and this is also true for athletes.

Limitations

One of the main limitations of our study was the sample size. Previous studies (Sim et al., 2018; Vasileiou et al., 2018) showed that it is difficult to define a priori the sample size in qualitative research, especially in inductive and exploratory research, as is the case here. In addition, the sample size depends on the qualitative design chosen, the sampling strategy (purposive, theoretical), and the instrument used for data collection. We judged that all the information collected was relevant for the performed in-depth analyses.

Conclusions

Our results showed that the individual socio-emotional context of pregnancy will influence how the athletes face the challenges and balance pregnancy, motherhood, and sports career. We identified that pregnancy and the birth of the child are events that lead the athlete's career to a transition: the end of the career or the acquisition of new skills to deal with the new demands. Pregnancy and maternity can be an opportunity for emotional gains in the sports context, improving internal confidence to concentrate on training and overcome challenges and adversities. It is a stage in which the athlete will benefit from planning a career transition (before and after pregnancy). The findings here indicate that athletes can reconcile maternity with their sports careers provided that they have social support, relative planning of the better time to become pregnant, and the perspective of having the freedom to reconcile the athlete's routine with childcare.

Thus, when a sportswoman becomes pregnant and has a baby, she goes through a transition period in her career with new demands that will require coping skills. Good professional support and the expectation of keeping the financial support will enable the athlete to dedicate herself to the two routines, which are not mutually exclusive, and one can benefit the other.

Acknowledgments

We thank the athletes that participated in this study and shared their experiences.

Statement of Significance

Problem

Athletes in Brazil, in general, have insufficient support when they get pregnant. Especially in the postpartum period when there exists a pression to return quickly to the practice. Previous studies show that being a mother and athlete has lost (sleep deprivation, e.g.) and gains in emotional strength.

What this paper adds

The interviews with the Brazilian athletes highlighted the importance of social support and show that motherhood is an event that requires a career transition. A support program for coaches and managers is an acceptable option to provide support to new mother-athletes in the postpartum period.

References

- Abajo, J. M., Leonet, G. L., Morales, M. T. V., & Prado, E. L. A. (2022). El cuerpo en la construcción de la identidad. Las mujeres deportistas de alto rendimiento. Cuestiones de género: de la igualdad y la diferencia, 17, 304–317. https://doi.org/10.18002/cg.i17.7214
- Appleby, K. M., & Fisher, L. A. (2009). "Running in and out of Motherhood": Elite Distance Runners' Experiences of Returning to Competition after Pregnancy. Women in Sport and Physical Activity Journal, 18(1), 3-17. https://doi.org/10.1123/wspaj.18.1.3
- Baxter, P., & Jack, S. (2008). Qualitative Case Study Methodology: Study Design and Implementation for Novice Researchers. *The Qualitative Report*, 13(4), 544-559. https://doi.org/10.46743/2160-3715/2008.1573
- Behr, K. H., & Kuhn, P. L. (2019). Key Factors in Career Development and Transitions in German Elite Combat Sport Athletes'. *Martial Arts Studies*, 7, 19-35. https://doi.org/10.18573/mas.73
- Beilock, S. L., Feltz, D. L., & Pivarnik, J. M. (2001). Training Patterns of Athletes during Pregnancy and Postpartum. *Research Quarterly for Exercise and Sport*, 72(1), 39-46. https://doi.org/10.1080/02701367.2001.10608930
- Camargo, B. V., & Justo, A. M. (2013). Iramuteq: um software gratuito para análise de dados textuais. *Temas em Psicologia*, 21(2), 513-518. https://doi.org/10.1590/S1980-220X2017015003353
- Cecić Erpič, S., Wylleman, P., & Zupančič, M. (2004). The effect of athletic and non-athletic factors on the sports career termination process. *Psychology of Sport and Exercise*, 5(1), 45–59. https://doi.org/10.1016/S1469-0292(02)00046-8
- Chow, B. C. (2001). Moving on? Elite Hong Kong Female Athletes and Retirement from Competitive Sport. Women in Sport and Physical Activity Journal, 10(2), 47-81. https://doi.org/10.1123/wspaj.10.2.47
- Creswell, J. W. (2007). Qualitative inquiry and research design: Choosing among five approaches, 2nd ed. Sage Publications.
- Culvin, A., & Bowes, A. (2021). The Incompatibility of Motherhood and Professional Women's Football in England. Frontiers in Sports and Active Living, 3. https://doi.org/10.3389/fspor.2021.730151
- Darroch, F. E., Giles, A. R., Hillsburg, H., & McGettigan-Dumas, R. (2019). Running from responsibility: athletic governing bodies, corporate sponsors, and the failure to support pregnant and postpartum elite female distance runners. *Sport in Society*, 22(12), 2141–2160. https://doi.org/10.1080/17430437.2019.1567495
- Davenport, M. H., Nesdoly, A., Ray, L., Thornton, J. S., Khurana, R., & McHugh, T. L. F. (2022). Pushing for change: a qualitative study of the experiences of elite athletes during pregnancy. *British Journal of Sports Medicine*, 56, 452-457. https://doi.org/10.1136/bjsports-2021-104755
- Debois, N., Ledon, A., Argiolas, C., & Rosnet, E. (2012). A lifespan perspective on transitions during a top sports career: A case of an elite female fencer. *Psychology of Sport and Exercise*, 13(5), 660–668. http://dx.doi.org/10.1016/j.psychsport.2012.04.010

- Dietz, P., Legat, L., Sattler, M. C., & Poppel, M. N. M. (2022). Triple careers of athletes: exploring the challenges of planning a pregnancy among female elite athletes using semi-structured interviews. *BMC Pregnancy Child-birth*, 22(643), 2-8. https://doi.org/10.1186/s12884-022-04967-7
- Fàbregues, S., & Fetters, M. D. (2019). Fundamentals of case study research in family medicine and community health. Family Medicine and Community Health, 7(2), 1-8. https://doi.org/10.1136/fmch-2018-000074
- Fernandez, Z. F. (2020). Mujer y deporte en México. Hacia una igualdad sustancial. *Retos*, 37, 222–226. https://doi.org/10.47197/retos.v37i37.71684
- Foppiano-Vilo, G., Matus-Castillo, C., & Cornejo-Améstica, M. (2022). Barreras, facilitadores y estrategias que influyen en la participación femenina en juntas directivas de federaciones deportivas chilenas. *Retos*, 44, 34–44. https://doi.org/10.47197/retos.v44i0.90136
- Frabotta, S. (2021). Mujer y deporte en el aula de italiano LS: la historia de Ana Carmona Ruiz. *Revista Internacional de Culturas y Literaturas*, 24, 115–127. https://doi.org/10.12795/RICL2021.i24.07
- Franck, A., & Stambulova, N. B. (2020). Individual Pathways Through the Junior-to-Senior Transition: Narratives of Two Swedish Team Sport Athletes. *Journal of Applied Sport Psychology*, 32(2), 168–185. https://doi.org/10.1080/10413200.2018.1525625
- Jarvie, G, & Thornton, J. (2012). Sport, culture and society, an introduction (2nd ed.). Retrieved from: https://doi.org/10.4324/9781315688961
- Kaplan, C. D., Korf, D., & Sterk, C. (1987). Temporal and social contexts of heroin-using populations: An illustration of the snowball sampling technique. *Journal of Nervous and Mental Disease*, 175(9), 566–574. https://doi.org/10.1097/00005053-198709000-00009
- Korstjens, I., & Moser, A. (2018). Series: Practical guidance to qualitative research. Part 4: Trustworthiness and publishing. The European Journal of General Practice, 24(1), 120– 124. https://doi.org/10.1080/13814788.2017.1375092
- Machado, R., & Doederlein, N. (September, 14, 2023). Comissão aprova projeto que assegura 120 dias de licençamaternidade às atletas. Agência Câmara de Notícias. https://www.camara.leg.br/noticias/997502-
 - COMISSAO-APROVA-PROJETO-QUE-ASSEGURA-120-DIAS-DE-LICENCA-MATERNIDADE-AS-ATLE-
 - TAS#:~:text=A%20Comiss%C3%A3o%20de%20Defesa%20dos,texto%20altera%20a%20Lei%20Pel%C3%A9.
- Maciel, L.F.P., Nascimento, R. K., Milistetd, M., Nascimento, J. V. & Folle, A. (2021) Systematic Review of Social Influences in Sport: Family, Coach and Teammate Support. Apunts Educación Física y Deportes, 145, 39-52. https://doi.org/10.5672/apunts.2014-0983.es.(2021/3).145.06
- Martin, L. J. (2017). Pushing for the perfect time: Social and biological fertility. *Women's Studies International Forum*, 62, 91–98. https://doi.org/10.1016/j.wsif.2017.04.004
- Martínez-Pascual, B., Alvarez-Harris, S., Fernández-de-las-Peñas, C., & Palacios-Ceña, D. (2017) Pregnancy in Spanish elite sportswomen: A qualitative study. *Women* & *Health*, 57(6), 741-
 - 755, https://doi.org/10.1080/03630242.2016.1202883

- Massey, K. L., & Whitehead, A. E. (2022). Pregnancy and motherhood in elite sport: The longitudinal experiences of two elite athletes. *Psychology of Sport and Exercise*, 60, 2-10. https://doi.org/10.1016/j.psychsport.2022.102139
- McGannon, K. R., Curtin, K., Schinke, R. J., & Schweinbenz, A. N. (2012). (De)Constructing Paula Radcliffe: Exploring media representations of elite running, pregnancy and motherhood through cultural sport psychology. *Psychology of Sport and Exercise*, 13(6), 820–829. https://doi.org/10.1016/j.psychsport.2012.06.005
- McGannon, K. R., Gonsalves, C. A., Schinke, R. J., & Busanich, R. (2015). Negotiating motherhood and athletic identity: A qualitative analysis of Olympic athlete mother representations in media narratives. Psychology of Sport and Exercise, 20, 51–59.
 - https://doi.org/10.1016/j.psychsport.2015.04.010
- McGannon, K. R., McMahon, J., & Gonsalves, C. A. (2018). Juggling motherhood and sport: A qualitative study of the negotiation of competitive recreational athlete mother identities. *Psychology of Sport and Exercise*, *36*, 41–49. https://doi.org/10.1016/j.psychsport.2018.01.008
- Monserrat-Gauchi, J., Segarra-Saavedra, J., & Penalva-Cerdá, S. (2023). Representación de las mujeres en la publicidad televisiva emitida durante la Copa Mundial Femenina de la FIFA (Francia 2019). Análisis de roles y estereotipos. *Retos*, *51*, 700–711. https://doi.org/10.47197/retos.v51.100600
- O'Brien, B. C., Harris, I. B., Beckman, T. J., Reed, D. A., & Cook, D. A. (2014). Standards for reporting qualitative research: A synthesis of recommendations. *Academic Medicine*, 89(9), 1245–1251. https://doi.org/10.1097/ACM.00000000000000388
- Palmer, F. R., & Leberman, S. I. (2009). Elite athletes as mothers: Managing multiple identities. *Sport Management Review*, 12(4), 241–254. https://doi.org/10.1016/j.smr.2009.03.001
- Pedrosa, I., García-Cueto, E., Suáres-Álvbarez, J., & Sánchez, B. P. (2012). Adaptación española de una Escala de Apoyo Social percibido para deportistas. *Psicothema*, 24 (3), 470-476. https://www.psicothema.com/pdf/4041.pdf
- Ratinaud, P. (2009). IRAMUTEQ: Interface de R pour les Analyses Multidimensionnelles de Textes et de Questionnaires [Computer software]. Retrieved from: http://www.iramuteq.org
- Rich, A. (2019). Nacemos de mujer. La maternidad como experiencia e institución. Traficantes de sueños (Ed). Retrieved from:
 - https://traficantes.net/sites/default/files/pdfs/map54_R ich_web_2.pdf
- Rodríguez, M. M., Moro, M. I. B., & Mateos, M. E. (2022). Influencia de la edad, la maternidad y el empleo en las barreras para la práctica de actividad física y deporte de las mujeres adultas en España. *Retos*, 44, 667–675. https://doi.org/10.47197/retos.v44i0.88076
- Salinas, M. C. (2020). La evolución y regulación laboral de las deportistas profesionales en España. Retrieved from: https://uvadoc.uva.es/handle/10324/57754
- Santos, A. L. P. dos, & Alexandrino, R. R. (2015). Desenvolvimento da carreira do atleta: análise das fases e transições. *Conexões*, 13(2), 185-205.

- https://doi.org/10.20396/conex.v13i2.8640662
- Selva, C., Pallarès, S., González, M. D. (2013). Uma mirada a la conciliación a través de las mujeres deportistas. *Revista de Psicología del Deporte, 22*(1), 69-76. https://ddd.uab.cat/pub/revpsidep/revpsidep_a2013v22 n1/revpsidep_a2013v22n1p69.pdf
- Siekanska, M., & Blecharz, J. (2020). Transitions in the Careers of Competitive Swimmers: To Continue or Finish with Elite Sport?. *International journal of environmental research and public health*, 17(18), 6482. https://doi.org/10.3390/ijerph17186482
- Silva, L. V. O., Tatmatsu, D. I. B., Brito, L. C., Gama, M. de C. F., & Viana-Meireles, L. G. (2023). Implicações sociais e emocionais da gravidez para atletas: uma revisão integrativa da literatura: revisión integrativa de la literatura. *Motrivivência*, *35*(66), 1–21. https://doi.org/10.5007/2175-8042.2023.e93817
- Spowart, L., & McGannon, K. (2023). Motherhood and sport: collective stories of identity and difference. Routledge. Retrieved from: https://doi.org/10.4324/9781003140757
- Stambulova, N., Alfermann, D., Statler, T., & Côté, J. (2009). ISSP Position stand: Career development and transitions of athletes. *International Journal of Sport and Exercise Psychology*, 7(4), 395–412. https://doi.org/10.1080/1612197X.2009.9671916
- Sundgot-Borgen, J., Sundgot-Borgen, C., Myklebust, G., Sølvberg, N., & Torstveit, M. K. (2019). Elite athletes get pregnant, have healthy babies and return to sport early postpartum. *BMJ open sport* & *exercise medicine*, 5(1), e000652. https://doi.org/10.1136/bmjsem-2019-000652
- Teddlie, C., & Yu, F. (2007). Mixed Methods Sampling: A Typology With Examples. *Journal of Mixed Methods Research*, 1(1), 77–100. https://doi.org/10.1177/1558689806292430
- Tekavc, J., Wylleman, P., & Cecić Erpič, S. (2020). Becoming a mother-athlete: female athletes' transition to motherhood in Slovenia. *Sport in Society*, 23(4), 734–750. https://doi.org/10.1080/17430437.2020.1720200
- Tong, A., Sainsbury, P., & Craig, J. (2007). Consolidated criteria for reporting qualitative research (COREQ): A 32-item checklist for interviews and focus groups. *International Journal for Quality in Health Care*, 19(6), 349–357. https://doi.org/10.1093/intqhc/mzm042
- Vasileiou, K., Barnett, J., Thorpe, S., & Young, T. (2018). Characterising and justifying sample size sufficiency in interview-based studies: systematic analysis of qualitative health research over a 15-year period. *BMC Medical Research Methodology*, 18(148), 2-18. https://doi.org/10.1186/s12874-018-0594-7
- Viana-Meireles, L. G., Meyer, A. V. T. de L., & Camilo, J. A. de O. (2023). Relações de trabalho e maternidade no contexto esportivo: um estudo de caso. *Psicologia Revista*, 32(1), 123–149. https://doi.org/10.23925/2594-3871.2023v32i1p123-149
- Wylleman, P., Reints, A., & Knop, P. (2013). A developmental and holistic perspective on athletic career development. *Managing High Performance Sport*, 159–182. Routledge. https://doi.org/10.4324/9780203132388