



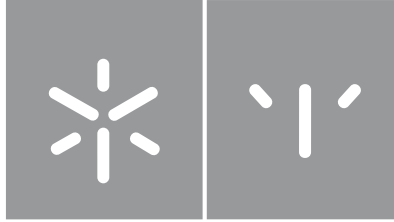
Mylena Lopes Novo

**Influences of the sources of  
anticipated maternal self-efficacy  
in pregnancy: A qualitative study**

Universidade do Minho  
Escola de Psicologia







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in pregnancy: A qualitative study**

Dissertação de Mestrado  
em Psicologia da Educação

Trabalho efetuado sob a orientação do  
**Professor Doutor Pedro Rosário**  
e da **Doutora Cátia Silva**

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“Sempre chegamos ao sítio aonde nos esperam”

José Saramago, em a *“Viagem do Elefante”*

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# **Influências das fontes de autoeficácia materna antecipada na gravidez: Um estudo qualitativo**

## Resumo

A gravidez e a transição para a maternidade podem representar um período de grande desafio. Na perspectiva da maternidade, a autoeficácia antecipada refere-se à crença da mãe nas suas habilidades para organizar e realizar tarefas relacionadas com a educação e os cuidados dos filhos, antes mesmo de se tornar mãe. No entanto, a autoeficácia materna antecipada durante a gravidez e a transição para a maternidade tem sido pouco explorada. Assim, o objetivo deste estudo foi o de 1) identificar quais fontes de autoeficácia materna antecipada emergem durante a gravidez, e 2) determinar quais são as fontes mais prevalentes quando comparamos ambos os grupos (i.e., primíparas e múltiparas). O estudo envolveu a participação de 12 gestantes, sete primíparas e cinco múltiparas, todas no terceiro trimestre de gravidez. Após o preenchimento do consentimento informado livre e esclarecido, todas foram convidadas a realizar uma entrevista semiestruturada para aprofundar o nosso conhecimento acerca das fontes de autoeficácia materna que emergem neste período. As entrevistas foram analisadas segundo uma análise temática de conteúdo, e os resultados apresentados em duas secções: I) Fontes de autoeficácia e factores que emergem durante a gravidez e II) A influência da paridade. De um modo geral, os resultados sugerem a presença de todas as fontes em ambos os grupos, bem como a presença de dois novos factores; no entanto, foram observadas diferenças na força das fontes, nos factores e nas sub dimensões entre os grupos. Espera-se que os resultados contribuam para uma melhor compreensão da autoeficácia materna antecipada durante a gravidez e a transição para a maternidade, para que seja possível promover o seu desenvolvimento, tendo como objetivo final a promoção do bem-estar das mães.

*Palavras-chave:* teoria cognitiva social, autoeficácia materna antecipada, gravidez

# **Influences of the sources of anticipated maternal self-efficacy in pregnancy: A qualitative study**

## Abstract

Pregnancy and transition to motherhood can be a challenging period. From a maternal perspective, anticipated self-efficacy refers to a mother's belief in her own abilities to organize and perform tasks related to the education and care of children, even before becoming a mother. However, to date, research has not explored the sources of maternal self-efficacy emerging during pregnancy. Thus, the aim of this study was to identify the sources of maternal anticipated self-efficacy emerging during pregnancy and determine the most prevalent sources when comparing groups of primiparas and multiparas. A qualitative approach was followed. Participants were 12 pregnant women, seven primiparas, and five multiparas, all in their third trimester of pregnancy. To this end, a qualitative approach was used, with the aim of assessing the relationship between the pregnancies. These women were invited to a semi-structured interview to learn the sources of maternal self-efficacy emerging during this period. The interviews were analyzed using thematic content analysis in two sections: I) Sources of anticipated maternal self-efficacy and factors that emerge during pregnancy and II) The influence of parity. In general, the results suggest the presence of all the sources of self-efficacy in both groups, as well as the presence of two new factors; however, differences were observed in the strength of the sources, the factors and the sub-dimensions between the groups. Findings are expected to contribute to a better understanding of anticipated maternal self-efficacy during pregnancy and the transition to motherhood, so that it is possible to promote its development, with the goal being to promote the well-being of mothers.

*Keywords:* social cognitive theory, anticipated maternal self-efficacy, pregnancy



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## **Influences of the sources of anticipated maternal self-efficacy in pregnancy: A qualitative study**

Transition to motherhood is a normative event in individuals' and families' lives; however, this can be an intense and disturbing period (Boss, 2002; Coyne et al., 2017; Mendes & Silva, 2012), because every member in the family is expected to redefine their identity and role within (Colman & Colman, 1994). Over this period, parents are constantly confronted with new tasks that require them to reorganize their identities, define new parental roles, and adapt to a new family life (Binda & Crippa, 2017; Phillips & Broderick, 2014). Parenting is probably one of adulthood's most challenging social roles and requires a long-term commitment while protecting, nurturing, and caring for a child (Coleman & Karraker, 1997). When confronted with this demanding role, mothers may develop a sense of competence that enables them to cope with new situations and improve their sense of self-efficacy.

Self-efficacy refers to the individual's belief in their ability to intentionally follow a course of action and successfully complete a particular behavior, task, or performance (Bandura, 1994). Extant research (Bandura, 1982, 1993) reports that the higher the individual's sense of self-efficacy, the more the self-imposed goals they tend to set and the more their engagement in pursuing those goals. Self-efficacy has been widely studied in various domains, such as career choice (Dostanic et al., 2021), sports performance (Argudo-Iturriaga et al., 2020; Đurović et al., 2021), academic context (Hanham et al., 2021; Morris & Usher, 2011; Usher & Pajares, 2008) or mental health (Zeng et al., 2021).

Focusing on motherhood, self-efficacy may be understood as the mother's belief in her abilities to organize and perform tasks related to the education and care of children (De Montigny & Lacharité, 2005; Leahy-Warren et al., 2011; Zheng et al., 2020). As prior research reports (Brunton et al., 2020; Razurel et al., 2017), self-efficacy for motherhood starts developing during pregnancy (i.e., anticipated maternal self-efficacy) and may be influenced by various individual factors (e.g., self-esteem, mental health), task changes (e.g., family reorganization), and situational demands (e.g., economic situation, geographic location) (Bandura, 1989). Importantly, several studies report high maternal self-efficacy as a predictor of successful motherhood (e.g., low parental stress) (Liu et al., 2012) and healthy child development, including aspects such as weight, sleep, and temperament (Anzman-Frasca et al., 2013; Bolten et al., 2012; Duraccio et al., 2021; Simard et al., 2021). Contrarily, low maternal self-efficacy beliefs have been associated with increased feelings of anxiety, depression, and stress (Barnett et al., 1991; Bloomfield & Kendall, 2012; Han et al., 2022; Kunseler et al., 2014; Dlamini et al., 2023; Leahy-Warren & McCarthy, 2011; Mohammad et al., 2011).

Mothers who are confident in their parenting abilities are more likely to overcome challenges and maintain a healthy relationship with their children. As Coleman & Karraker (2003) report, maternal self-efficacy predicts various positive outcomes, including general happiness, positive parenting behaviors, children's self-efficacy, and academic achievement (Ardelt & Eccles, 2001; Leerkes & Burney, 2007). Bandura's (1986) Social Cognitive Theory (SCT) provides a relevant theoretical framework for the current study while describing the dynamics of the mother-child relationship. SCT posits that human functioning stems from a constant and interactive relationship between cognitions, behaviors, and environmental factors. Moreover, this theoretical framework (e.g., Bandura, 1997 and Morris & Usher, 2011) highlights self-efficacy as a critical component that can be affected by multiple factors such as *mastery experiences*, *vicarious experiences*, *social persuasions*, and *physiological and affective states*.

### **Social Cognitive Theory**

Within the SCT framework, Bandura identified four aspects as sources of self-efficacy: *mastery experiences*, *vicarious experiences*, *social persuasions*, and *physiological and affective states*. *Mastery experiences* are perceived as the source with the greatest influence on the formation of self-efficacy (Bandura, 1997). In the history of personal accomplishments, successes and failures play a powerful influence on the development of individuals' sense of self-efficacy (Coleman & Karraker, 1997). *Vicarious experiences* refer to the observation of others' patterns and performances and provide a reference point for individuals to judge their ability in a given situation (De Montigny & Lacharité, 2005). The observation of a model with similar characteristics to oneself being successful empowers the observer's belief in mastering the skills needed to complete a similar task (Bandura, 1997). The more the observer identifies with the model, the more this process influences the formation of the individual's sense of self-efficacy (Bandura, 1997). The third source, *social persuasions*, refers to outside information likely to reinforce performance skills. Bandura (2001) points out that individuals are likely to develop a high sense of self-efficacy when significant people believe in their abilities and express confidence in them. As Bandura (1997) argues, individuals who receive verbal reinforcement regarding their ability to master a particular task are more likely to display and sustain constant effort, even those who doubt their performance. Prior research reports that *social persuasions* reinforcing people's abilities play an important influence on the formation of a sense of self-efficacy (Peura et al., 2021). Finally, the *physiological and affective states* refer to the emotions that can influence an individual's expectations. As Bandura (1997) highlights, this source focuses on how emotions are perceived and interpreted by individuals. For example, fluctuations in affective or physiological states are likely to be interpreted as

signs of ineffectiveness: a positive mood is expected to increase individuals' self-efficacy, while a discouraged mood is likely to decrease it (Bandura, 1997). Coleman and Karraker (1997) analyzed the effects of these four sources on parental self-efficacy. Findings indicate that mothers who have effective parenting role models in their environment, receive positive encouragement and advice from their environment, and have positive parenting experiences are likely to develop high maternal self-efficacy. There is vast literature on the effects of maternal self-efficacy; however, a few studies have investigated the prenatal period (Carpinelli & Savarese, 2022; Pinto et al., 2016; Samdan et al., 2022). This is surprising given that perinatal factors, such as mental health and relationship satisfaction during pregnancy, are important predictors of postpartum positive outcomes (e.g., less risk of postpartum depression, and anxiety; Austin et al., 2007; Han et al., 2022; Hoffenaar et al., 2010; Robinson et al., 1989). For example, Pinto and colleagues (2016), found that mothers' self-efficacy increased between the first trimester of pregnancy and six months postpartum. These data suggest that mothers tend to perceive themselves as more competent while performing various parenting tasks as the transition to motherhood occurs. These promising data stress the importance of maternal self-efficacy as a key psychological process during the transition to motherhood. However, to our knowledge, literature on the sources of maternal self-efficacy, particularly during pregnancy, is scarce.

The current study aims to identify and develop a comprehensive understanding of the sources driving the development of self-efficacy beliefs during pregnancy. A deepened understanding of these processes will provide the opportunity to develop guidelines likely to promote women's psychological well-being during this phase of life and help them increase their confidence about the next phase of their lives.

### **Purpose of the study**

This study aims is twofold: to investigate the sources of anticipated maternal self-efficacy among pregnant women and examine the differences between primiparous (i.e., those giving birth for the first time) and multiparous women (i.e., those with one or more children). Importantly, to the best of our knowledge, there is no research on pregnant women's perspectives about their maternal self-efficacy. Prior literature (e.g., Gameiro et al., 2009; Samdan et al., 2022; Shakarami et al., 2021; Zhu et al., 2022) has found that the level of postnatal maternal self-efficacy in primiparous mothers was lower than that of multiparous mothers. This non-surprising result is probably due to the previous experience of the latter while coping with motherhood tasks and challenges (Samdan et al., 2022). Extant literature reports differences between primiparous and multiparous women regarding postnatal maternal self-efficacy, but there is no information on whether these differences are also found for anticipatory

maternal self-efficacy. The birth of the first child is a time of new challenges, such as experiencing pregnancy and childbirth and adjusting daily life to a new caregiving role. However, the birth of a second or third child can also bring important and demanding challenges (Gameiro et al., 2009); for example, regarding the reorganization of the marital and parental systems (Stewart, 1990) likely to affect anticipatory maternal self-efficacy. The current study is expected to provide promising insights on the perspective of pregnant women as a whole about their anticipated maternal self-efficacy, and also on that of primiparous and multiparous mothers. Drawing on Morris and Usher's (2011) work, current research aims to identify the sources of anticipated maternal self-efficacy for pregnant women and investigate differences among primiparous and multiparous women. Bandura's SCT (1986) was used as the theoretical framework for this study due to its established and comprehensive foundation, offering valuable insights into psychological functioning. Research questions are as follows: which sources of anticipated maternal self-efficacy emerge during pregnancy? what are the most prevalent sources of anticipated maternal self-efficacy for primiparous and multiparous mothers?

## Methods

### Participants and setting

The research involved a cohort of 12 pregnant (seven primiparous and five multiparous) women residing in Portugal. All these women were in the advanced stage of their third trimester of pregnancy (i.e., being at least 27 weeks pregnant). Detailed information about the participants' backgrounds, such as age, educational attainment, and number of children, are presented in Table 1.

**Table 1**

*Demographic characteristics of participants: pregnant women (N = 12)*

Participants Characteristics	N (%)	M ± $\sigma$
Age (years)		32.7 ± 18
Educational attainment		
High School	5 (58.3%)	
Higher Education	7 (41.6%)	
Number of children		
None	7 (58.3%)	
One	3 (25.0%)	
Three or more	2 (16.6%)	

### Procedure

Participants were recruited using online platforms (e.g., Instagram®) and through hospitals and health centers. The inclusion criteria for the study were as follows: a) being pregnant, and b) being in

the third trimester of pregnancy, with at least 27 weeks gestation. Exclusion criteria included: a) mothers under 18 years old, b) those with previous psychiatric diagnoses, and c) mothers with infants with medical birth problems. To achieve the desired sample size, pregnant women were contacted incrementally until the target number of participants was reached. Individual interviews were conducted with each participant at a mutually agreed upon time between the researcher and the participant. The interviews were conducted remotely following participant's selection of the online platforms (e.g., Zoom®, WhatsApp). Prior to the interviews, participants signed an informed consent form and completed a socio-demographic questionnaire. To ensure the confidentiality and anonymity of the data, unique identifying codes (e.g., APMA24) were assigned to each participant. The interviews were audio-recorded using a digital recorder and transcription of the interviews was done verbatim by the principal investigator. The duration of the interviews ranged from 30 to 40 minutes.

### **Interview protocol**

A semi-structured interview protocol (see Appendix A) was developed to address the main goals of the study. The goals were twofold: a) to identify the sources of self-efficacy that emerge during pregnancy, and b) to determine the influence of being primiparous or multiparous. The interview protocol was adapted from Morris and Usher (2011), and the questions were intentionally crafted to elicit information on the four sources of self-efficacy identified by Bandura (1997). The following are examples of the questions asked (see Appendix A):

- a) “What previous life experiences may have contributed to your perception of how you will cope with the challenges of motherhood?”
- b) “What are your most predominant feelings and emotions when you think about what you will have to do after pregnancy as a mother?”

While the main focus remained on the four sources of self-efficacy by Bandura (1997), during the interviews additional probes were included to address any potential alternative information. The following is an example of the questions asked: “Considering your life experience, and what you have been disclosing during this interview, which aspect has influenced the most your perception of how you will cope with the challenges of motherhood?”

### **Data Analysis**

A thematic content analysis approach (Braun & Clarke, 2006) was used to analyze the interview transcript data. To this aim, the verbatim transcripts were initially cross-referenced against the audio recording. Subsequently, a codebook was created based on the four sources of SCT (Bandura, 1977). Finally, following the theoretical codes a deductive approach was conducted to analyze the data;

afterward, an inductive approach was used to identify the codes emerging from the data. The authors of the paper trained to apply the codebook to a selection of interviews including most of the categories and subcategories. All the disagreements were discussed until the coders reached a consensus. Consistency in coding was achieved after seven training sessions. Finally, the data were analyzed using a thematic content analysis approach with the assistance of QSR International's NVivo12 software. Moreover, inter-observer agreement was calculated to verify coding accuracy. To clarify the reporting process, the frequency of responses for each category was described using Rodgers and Cooper, (2006) scoring scheme for qualitative thematic content analysis: "All" = 12 cases (all participants), "nearly all" = 10-11 cases (100%-2 participants), "most" = 8-9 cases (50%+1 to 100%-2 participants), "around half" = 6-7 cases (50%+1 participant), "some" = 3-5 cases (3 to 50%+1 participant), "a couple" = 2 cases, and "one" = one case. Following the same logic, the scoring scheme was adapted to the primiparous and multiparous groups. Afterward, to enhance the trustworthiness of the current findings (Lincoln & Guba, 1985), the first and the third authors of the study coded the interviews independently, compared coding, and resolved discrepancies through discussion. One researcher coded all the data and the second researcher (i.e., part of the research team familiar with the topic in question) coded 30% of the material independently. All codes were reviewed by both researchers and the differences found were discussed to reach a consensus. The consistency of coding was assessed by Cohen's kappa coefficient. The kappa coefficient was 0.83, which is considered almost perfect according to Landis & Koch (1977). Throughout the paper, verbatim quotes were included to illustrate the data captured, support discussion, and add validity to the results.

Qualitative research uses the concept of saturation to determine sample size. Saturation refers to the stage where no novel information can be discerned from the data (Guest et al., 2006). In the current work, saturation was achieved following interviews with eight participants.

### **Findings**

The presentation of the results follows the goals of this study. Firstly, findings were reported considering the sources of self-efficacy described by Bandura (1997) (i.e., *mastery experiences*, *vicarious experiences*, *social persuasions*, and *physiological and affective states*) and other factors (i.e., *interpretations of events related to the transition to motherhood* and *sensitive aspects in the development of anticipated maternal self-efficacy*) most frequently identified by participants as exerting the greatest influence on the development of their anticipated maternal self-efficacy. Subsequently, these data were analyzed considering the perceptions of primiparous and multiparous mothers. Data for both groups were analyzed through the frequencies of reports.

## 1. Sources of anticipated maternal self-efficacy and factors that emerge during pregnancy

*Mastery experiences* was identified in the reports of all the participants as a source of anticipated maternal self-efficacy. A deep analysis to the women's discourses allowed to identify three types of *mastery experiences* (i.e., previous experience with other children; previous experience with motherhood, and mastery of content) with distinct intensity, mentioned respectively by nearly all, some, and most of the participants. Prior experience encompasses the set of experiences and interactions women have acquired over their lifetime while dealing with children who are not their own. These experiences may include caring for younger siblings, interacting with nieces and nephews, participating in activities involving children, or professional experiences. The following quotations illustrate these ideas:

APMA24: *"And even [taking care of] my brother, because I'm eight years older than my younger brother; and I distinctly remember going to my grandmother's house [that took care of him during the day] and changing his nappies when he was eight."*

VSCC15: *"But then there was the birth of my nephew. He's going to be sixteen [years old] today. Ahm, that also had a big impact, really."*

IFMM17: *"I think that my whole journey while I was in the scouts [organizing activities for children in the Boy Scouts], I think that may have contributed in some way [to my decision to be a mother]."*

Prior motherhood experience refers to the set of experiences and learning acquired while playing the role of a mother. This is a particular type of *mastery experiences* that can only be reported by multiparous mothers. All the multiparous mothers (i.e., five participants) reported that their prior experience of motherhood impacted positively on their current approach to pregnancy. This conclusion is illustrated by the following quotes:

CREG06: *"I already had formed the idea [having another child]. Because I have a baby who is almost four years old: it is no longer a baby, right?"*

DMCC01: *"My level of awareness for this pregnancy, that is, for what's coming, is completely different from that I had in the first one. Now, I'm much more prepared for reality."*

The last type of *mastery experiences*, mastery of content, refers to the acquisition of in-depth and comprehensive knowledge in a specific area and is likely achieved through various formative experiences. These include participation in courses or learning programs, as well as the active pursuit of knowledge through independent study, research, and practice. The following quotations illustrate these ideas:



SLCL03: *"Since I started studying about it, I'm more relaxed. I think that reading things and finding out information is very good for our mental health."*

RL1086: *"I try to read a lot about children's education, because, from what I've read, I learned that there are things in childhood that have repercussions later on, if not, when they are older."*

In addition, participants report allowed to identify *vicarious experiences* as a relevant source of self-efficacy in the development of anticipated maternal self-efficacy. Current data analysis has shown evidences of direct and indirect contact types, mentioned by all and most of the participants, respectively. Examples of vicarious learning occurring through direct contact, direct observation, or interaction with significant individuals (i.e., friends and family members), was mentioned by all participants. The following quote illustrates the importance of observing close significant individuals dealing with motherhood.

CREG06: *"[sometimes]... all our friends have children, are expecting the first born, or are on their way to having a second one... Ahm, and this ends up being what we live and witness, ahm, considering people we're closest to."*

Other participants highlighted how their positive family experiences influenced their perspective on motherhood: *"I had an incredible family, incredible parents, and an incredible brother. And I can't imagine anything different for me."* (DMCC01). In contrast, others expressed the desire to break with past family patterns and adopt a different approach to motherhood: *"And so I always thought I'd like to change that pattern, to do things with my children differently."* (SLCL03).

On the other hand, indirect contact learning refers to the acquisition of knowledge and skills through observing people with whom we don't have a personal relationship (e.g., mothers and fathers who are not from the family inner circle). This learning method involves social comparison, and a decision on whether the experiences and behaviors of others are considered a reference for their own motherhood process, or not. Through observing behavior models, women can gain insights and learn new ideas and approaches that can be applied to their own experiences of motherhood. The following quotes illustrate these ideas:

RL1086: *"Those mums, very patient mums, who try to get around the tantrums of the kids. For example, in a restaurant, they [parents] occupy them [children] with Legos® [construction toys] or drawings that they bring. I think these are sources of inspiration for us, so that we can try to apply them."*

JCCC23: *"Or when we see a baby that is restless, and the parents try to calm him down, and they fail. It always ends up influencing us. Ahm, it always ends up influencing (...), and sometimes it*

*doesn't have to be a family [the source of influence], but people you cross within the street, or in the supermarket..."*

*Social persuasions* was the source of anticipated maternal self-efficacy mentioned by most of the participants. In the current study, participants' discourses allowed to identify three types of *social persuasions*: direct and indirect messages and self-talk. The latter was referred by all the participants and emerged as the most influential type of *social persuasions*, when compared to direct and indirect messages, mentioned by nearly all and around half of the participants. Self-talk refers to the internal communication process through which pregnant women address their inner self, using words, phrases, or thoughts to persuade and encourage themselves. For instance, mothers' utterances revealed encouraging thoughts disclosing that over history, as well as in the present, common women were able to face the challenges of motherhood; this reassuring line of reasoning helped reinforce the belief that it is possible to overcome present difficulties as the following quotes illustrate:

IFMM17: *"On the other hand, I also think well, well..., I think that most people are capable [to take care of a baby], so I think (laughs) that I will not be the one who can't do it."*

SLMC24: *"[raising a child] everything is doable, everything is possible. In the old days, there were seven and eight [children at home] and they [families] made it work."*

Current participants discourses allowed to identify evidence supporting *physiological and affective states* as a relevant source for anticipated maternal self-efficacy. Nearly all participants referred to this source through the identification of negative and positive emotional states and physical responses experienced by the body. Negative emotional states include a wide range of unpleasant and uncomfortable emotions that pregnant women may experience during this period. The following quotes illustrate feelings of fear and anxiety reported by two participants:

DMCC01: *"Which is the fear, ahm, it's the fear of failing with my first child [multiparous women referring to her first child], not with this one."*

APMA24: *"I think I can do things, I'm not, I'm not worried with changing nappies, or, I at least that's what I think (pause) I'm a bit stressed with the responsibility [related to raising a child]."*

Contrarily, positive emotional states encompass a range of pleasant, enjoyable, and desirable emotions pregnant women may experience over the journey of motherhood. The following quotes illustrate feelings of joy, love, and enthusiasm reported by two participants:

GDAS15: *"I feel good. I'm really looking forward to the arrival of my baby."*

IFMM17: *"Ahm, it really is, in the end, it's a project for life ... it's a project, and I'm happy with it, right?"*

The physical responses experienced by the body (i.e., tiredness, pain, muscle tension) were mentioned by just some participants. The following quotes exemplify physical symptoms that have affected both the comfort and well-being of the participants.

APMA24: *"This last month, even though it was the only one, I had some pregnancy symptoms, heartburn, ahm, pain, lack of, I can't sleep, I cannot find a position in the bed."*

SVGP12: *"Ahmm, because normally I'm an energetic person (...) and with pregnancy, my need to be with myself increased, because I often wasn't well, I just wanted to be quiet and just drink tea."*

Furthermore, in addition to these four sources of self-efficacy identified in the women's discourses, we also identified two factors (i.e., sensitive aspects in the development of anticipated maternal self-efficacy and interpretations of events related to the transition to motherhood) as contributing to the development of anticipated maternal self-efficacy.

In the current reports we identified three sensitive aspects: approach of childbirth, unexpected events or incidents with an impact on health during pregnancy, and multiparity, respectively mentioned by most, some and all of the participants. The period close to the baby's birth was particularly sensitive and prompted reflections on mothers parenting skills. For instance, participants expressed that the approach to the baby's birth raised deep questions about their capacity to care for the child to be born. These ideas are illustrated by the following quotes:

APMA24: *"I think that at the end of the pregnancy, the perspective changes a lot, the weight of the responsibility raises; the weight of, ahm, raising a child, of having a person who, who is going to depend on me for the rest of my life."*

IFMM17: *"It's just that things [the birth of the child] are closer, it becomes more real every day. And I think that these, these doubts or concerns can arise more often, because, ok, we're getting closer."*

Unexpected events or incidents with an impact on health during pregnancy were also identified as sensitive aspect. These events can vary in severity, ranging from minor health issues to more serious complications. The following quotes illustrate participants perspectives on how these unexpected circumstances affected their experience of pregnancy:

SLCL03: *"At the beginning of the pregnancy, I had a lot of nausea and ate very little, so I lost weight."*

CREG06: *"There were some issues with bleeding and placenta displacement."*

Finally, multiparity (i.e., having more than one child), has also been identified as a sensitive aspect interfering with the development of anticipated maternal self-efficacy. All multiparous mothers

highlighted their concerns about managing the care of children already at home, as well as the implications of the arrival of a newborn in a family with young children. For instance, they have expressed concerns about their ability to balance the different, and sometimes conflicting needs, of their children and the newborn on the way.

RL1086: *"It's like thinking "Oh my God, how is this going to be like?", isn't it? With a baby and more children at home. F. is three [years old], he's still very dependent."*

CREG06: *"Ahmm, being the second [child] I don't know. Because I don't know how you're going to manage the first one."*

The second factor, *interpretations of events related to the transition to motherhood* describes how women perceive, understand, and attribute meaning to the experience of becoming a mother. The analysis to the interviews allowed to identify this as the most frequently mentioned factor in the development of anticipated maternal self-efficacy. Within the discourses of the women, we identified four interpretations of the *events related to the transition to motherhood*: positive, negative, prospective, and retrospective, respectively mentioned by all, most, most and most of the participants. Positive interpretations reflect the optimistic and enriching vision of motherhood. These positive interpretations can be manifested in various ways. For example, the following quote illustrates the profound sense of accomplishment felt by a participant in giving birth and raising a child:

VSCC15: *"And, ..., a child is always a blessing, you know."*

In the discourses of these women, motherhood was perceived as a unique adventure, marked by opportunities for learning and personal growth. The following quotations illustrate these ideas:

DMCC01: *"But motherhood, I would say, is like the greatest adventure of a lifetime, okay?"*

SVGP12: *"Ahmm, but I believe it's a path of growth."*

Furthermore, motherhood was characterized as an act of caring, guiding, and love as the following quote suggests: *"So, in a nutshell, motherhood is this, it's caring for the other, it's guiding the other, it's holding their hand, it's everything."* (DMCC01).

On the other hand, negative interpretations highlight how most women look at motherhood highlighting the difficulties and obstacles associated with this period. The following quotes illustrate examples of negative interpretations:

DMCC01: *"Am I going to have episodes that are going make me insecure and without a solid ground? Yes."*

APMA24: *"Mums are always very tired, always in pain everywhere, and lack of, lack of, lack of, lack of, lack of, lack of, lack of, lack of hours of sleep."*

Prospective interpretations were mentioned by most of the participants and refer to the meanings and significance attributed to future events, alongside the expectations individuals have of such events. These prospective interpretations involve the analysis of anticipations and predictions that pregnant women make about their future experience of motherhood. The following quotations illustrate these ideas:

CREG06: *"Hmm, it's not an easy thing, passing on values, and, and what is, what is right or wrong, isn't it?"*

APMA24: *"I think there are things [changing diapers, getting dressed] that I feel much more prepared to do (...) ahmm, then they worry obviously, well, this, this gives us a certain experience, but it doesn't give the experience of breastfeeding, of, of doing all the other things."*

Finally, retrospective interpretations relate to the process of analyzing and understanding past events based on the knowledge, information, and perspectives available at the current moment. These interpretations involve assessing previous experiences to anticipate and prepare for future challenges, considering the participants' current view of the situation. The following quotes illustrate how retrospective interpretations can involve a critical analysis of initial perceptions and an understanding of how those perceptions evolved:

IFMM17: *"Well, painful and difficult moments, and that used to confuse me a lot [live events non-motherhood related], and it's funny that since I became pregnant, that doesn't come to mind much, honestly."*

SLCL03: *"I thought it was a very complicated thing, that a person suffered a lot during childbirth and pregnancy. And that there could be many problems and that I would gain a lot of weight (...) I used to think that, well, but not anymore."*

In sum, according to our participants, *social persuasions* and *vicarious experiences* were the sources of self-efficacy that seem to contribute the most to the development of anticipated maternal self-efficacy, along with the factor of *interpretations of events related to the transition to motherhood*. However, the *physiological and affective states*, and *mastery experiences* and *sensitive aspects in the development of anticipated maternal self-efficacy* were also found to provide valuable insights into the development of anticipated maternal self-efficacy.

## **2. The influence of parity**

Data regarding our first aim identified all the sources of self-efficacy (i.e., *mastery experiences*,

*vicarious experiences, social persuasions and physiological and affective states*) in the women discourse, and allowed to add two newly factors related to the growth of anticipated maternal self-efficacy: i) *sensitive aspects during the development of anticipated maternal self-efficacy*, and ii) *interpretations of events related to the transition to motherhood*. Our second goal explores how the influence of these sources of self-efficacy and factors linked to the development of anticipated maternal self-efficacy differ for primiparous or multiparous mothers. The current section addresses data on the latter goal.

*Mastery experiences* was a source of anticipatory self-efficacy frequently mentioned by both groups of participants. However, more emphasized in the reports of primiparous mothers. The latter revealed that they primarily relied on *mastery experiences* through proactively seeking out information and knowledge about caring related abilities (i.e., mastery of content) as well as on their prior experiences with children. The following quotations illustrate these ideas:

SLCL03: *"Since I started studying about it, I'm more relaxed. I think that reading things and finding out information is very good for our mental health."*

IFMM17: *"I think that my experience in scouting [organizing boot camps for children] is helpful."*

Multiparous mothers reported their own motherhood experiences. These previous experiences influenced their awareness and level of preparation for the new pregnancy, as this mother pointed out: *"My level of awareness for this pregnancy, that is, for what's to coming, is completely different from that I had in the first one. Now, I'm much more prepared for reality."* (DMCC01).

The *vicarious experiences* source of self-efficacy was frequently mentioned in the reports of both groups, with a particular emphasis in the discourses of the primiparous mothers. The latter highlighted indirect contact as a relevant type of *vicarious experiences* for the development of their anticipated maternal self-efficacy. Particularly, primiparous mothers reported more frequently indirect contact, referring to the acquisition of knowledge and skills through the observation of other people, such as other mothers or fathers, which may have less personal significance (for example, in different contexts).

JCCC23: *"Or when we see a baby that is restless, and the parents try to calm him down, and they fail. It always ends up influencing us. Ahm, it always ends up influencing (...), and sometimes it doesn't even have to be the family [the source of influence], but people you cross within the street, or in the supermarket..."*

On the contrary, multiparous mothers reported how observing friends and family influenced their perspective on motherhood. The following quotations illustrate these ideas:

CREG06: “[sometimes]... *all our friends have children, are expecting the first born, or are on their way to having a second one... Ahm, and this ends up being what we live and witness, ahm, considering people we're closest to.*”

*Social persuasions* were the source of self-efficacy most mentioned by the participants, and consequently emerged as a primary source of self-efficacy of influence in the development of anticipated maternal self-efficacy for both primiparous and multiparous mothers. However, overall, *social persuasions* was mentioned more frequently by multiparous mothers. The discourses of primiparous mothers revealed a tendency to seek indirect messages more often (i.e., transmitted through non-explicit approaches, such as smiles of approval, support, and validation), as the following quotations illustrate:

JCCC23: *“Ahmm, that they often tell us ‘oh you’re going to be a very calm mum, you’re not going to be one of those extremely worried mums’. That ends up validating us, doesn’t it?”*

In contrast, multiparous mothers reported using self-talk more frequently.

DMCC01: *“I think I’m very maternal. I was already very maternal, with friends, with family. So I always thought that this role would fit me well, honestly.”*

The self-efficacy source *Physiological and affective states* was identified as being present in most of the reports of primiparous mothers; these women referred more particularly positive and negative emotional states when compared to multiparous mothers. The following quotes of primiparous mothers illustrate this idea:

GDAS15: *“I feel good. I’m really looking forward to the arrival of my baby.”*

APMA24: *“But right now, it’s, ahm, (pause) it’s a feeling of a lot of anxiety. In other words, childbirth causes a lot of anxiety.”*

Although *sensitive aspects in the development of anticipated maternal self-efficacy* were reported more frequently by primiparous mothers, especially regarding the approach to birth, multiparity emerged as the sensitive aspect more influential for multiparous mothers. The following quotes illustrate the idea that the previous experience of having a child brings new concerns for these women.

DMCC01: *“My biggest fear as a second-time mum is whether I’ll be able to balance time for the two, because they’re both going to need a lot from me. (...) Because the last time [first baby] we didn’t have another child at home, a baby, so now we have to face other changes, other constraints.”*

CREG06: *“Ahmm, being the second I don’t know. Because I don’t know how you’re going to manage the first one.”*

Finally, primiparous mothers reported interpretations of events related to the transition to

motherhood more frequently than multiparous mothers. The majority of the former highlighted positive, negative and prospective interpretations and a few retrospective interpretations.

SLCL03: *"I think motherhood is incredible."*

GDAS15: *"It's a phase [the transition to motherhood] that makes me afraid, because now I won't be alone for the rest of my life, I will always have him with me."*

IFMM17: *"But, you see, it is one thing to think that I'm going to react well to those situations, but it is another thing when I'm actually facing them, isn't it?"*

In sum, all sources of self-efficacy and factors were mentioned by all participants and potentially contributed to the development of anticipated maternal self-efficacy; however, discrepancies were observed between the groups. The reports by primiparous mothers including more references to sources such as *mastery experiences, vicarious experiences, physiological and affective states*, as well as factors *sensitive aspects in the development of anticipated maternal self-efficacy* and *interpretations of events related to the transition to motherhood* when compared to those of multiparous women. Conversely, the source of self-efficacy *social persuasions* was emphasized more by multiparous mothers.

**Table 2**

*Codes, types, and frequency of reported speech in the 12 interviews*

	Codes	Types	f <sup>a</sup>
Sources	Mastery experiences	Previous experience with other children	10/12
		Previous experience with motherhood	5/12
		Mastery of content	9/12
	Vicarious experiences	Direct contact	12/12
		Indirect contact	8/12
	Social persuasions	Direct message	7/12
		Indirect message	10/12
		Self-talk	12/12
	Physiological and affective states	Positive emotional states	11/12
		Negative emotional states	11/12
		Physiological states	5/12
	Factors	Sensitive aspects in the development of anticipated maternal self-efficacy	Approach of childbirth
Unexpected events or incidents with an impact on health during pregnancy			5/12
Multiparity			5/12



	Codes	Types	f <sup>a</sup>
Factors	Interpretations of events related to the transition to motherhood	Positive interpretations	12/12
		Negative interpretations	9/12
		Prospective interpretations	9/12
		Retrospective interpretations	9/12

<sup>a</sup> Frequency of reported speech in the 12 interviews.

**Table 3**

*Codes, types, and frequency of reported speech in both the group of participants*

	Codes	Types	f <sup>a</sup> of primiparous	f <sup>b</sup> of multiparous
Sources	Mastery experiences	Previous experience with other children	5/7	5/5
		Previous experience with motherhood	0/7	5/5
		Mastery of content	5/7	4/5
	Vicarious experiences	Direct contact	7/7	5/5
		Indirect contact	4/7	4/5
	Social persuasions	Direct message	6/7	1/5
		Indirect message	7/7	3/5
		Self-talk	7/7	5/5
	Physiological and affective states	Positive emotional states	7/7	4/5
		Negative emotional states	7/7	4/5
Physiological states		2/7	3/5	
Factors	Sensitive aspects in the development of anticipated maternal self-efficacy	Approach of childbirth	5/7	3/5
		Unexpected events or incidents with an impact on health during pregnancy	4/7	1/5
		Multiparity	0/7	5/5
	Interpretations of events related to the transition to motherhood	Positive interpretations	7/7	5/5
		Negative interpretations	5/7	4/5
		Prospective interpretations	5/7	4/5
Retrospective interpretations		5/7	4/5	

<sup>a</sup> Frequency of reported speech in the primiparous participants (seven interviews).

<sup>b</sup> Frequency of reported speech in the multiparous participants (five interviews).

## Discussion

This study aimed to investigate the sources of anticipated maternal self-efficacy emerging during pregnancy with a particular emphasis on the differences between primiparous and multiparous women.

The preliminary findings indicate that anticipated maternal self-efficacy is influenced by the four sources reported by Bandura's (1986) (i.e., *mastery experiences*, *vicarious experiences*, *social persuasions*, and *physiological and affective states*). Current findings are consistent with prior literature that has identified these as significant sources for developing self-efficacy in other areas of development

(Argudo-Iturriaga et al., 2020; Dostanic et al., 2021; Hanham et al., 2021; Zeng et al., 2021). However, extant literature warns that the sources of self-efficacy might have a distinct impact depending on the domain investigated. For example, Bandura (1997) defends *mastery experiences* as the most influential source for the development of self-efficacy, while more recent studies (Morris & Usher, 2021; Poulou, 2007) identify *mastery experiences* and *social persuasions* as the most influential sources for the development of teaching self-efficacy.

An important finding that emerges from this study is that although all the sources emerge, their elements are different. In other words, although these sources can be considered universal and applicable to different contexts, they also have specificities that are intrinsically linked to the context in which they are applied. In fact, this universality of the sources of self-efficacy suggests that they play a crucial role in different areas of life, influencing individuals' ability to face challenges and achieve goals (Bandura, 1997). However, this universality should not obscure the fact that the sources of self-efficacy seem to be molded and constructed differently depending on the context or domain in which they are applied. In other words, the context plays a fundamental role in how these sources of self-efficacy are perceived and utilized (Bandura, 1995b).

This study uncovers a promising, but significant finding: all sources of self-efficacy that extant literature has been associating with self-efficacy were also found as sources of anticipated maternal self-efficacy. This finding suggests a continuity between the sources feeding the two stages of an event (i.e., pre-occurring and ongoing). In other words, the sources contributing to our confidence and beliefs in our abilities to perform on-task seem to also play a crucial role (Bandura, 1994) when we anticipate how we will perform in future situations. Current data suggest that this seems to be the case of motherhood. The particularity of anticipated maternal self-efficacy is that women are planning a future event, that hasn't happened yet but will occur in due time. This certainty of a clear time window (i.e., nine months divided in clear milestones expressed in weeks) is likely to encourage women to develop strategies to cope with this challenge. This study shows participants efforts to develop efficacious strategies to help them cope with the challenges to be; interestingly that was not reported in the study by Morris & Usher (2011) focused on teachers' self-efficacy. One noteworthy example of such strategies is self-talk. When anticipating future circumstances, like motherhood, all participants reported to engage in a positive and motivating dialogue with themselves. When confronting themselves with challenges to occur, these pregnant women reported to rely on self-talk (e.g., persuading themselves that they are ready and capable of dealing with the upcoming situations) as a dependable tool to boost their maternal self-efficacy (Hatzigeorgiadis et al., 2011; Morris and Kavussanu, 2009).

In addition, we found interesting results on the comparison between primiparous and multiparous mothers regarding the sources of anticipated maternal self-efficacy. As previously mentioned, we identified the main sources of self-efficacy in the discourses of both groups; nevertheless, within each source, there were differences found.

The current primiparous mothers reports allowed to conclude that *mastery experiences* was a relevant source of self-efficacy for these women which corroborates prior research indicating that previous experiences with childcare before becoming mothers contribute to establishing firm beliefs in maternal self-efficacy (Leahy-Warren & McCarthy, 2011; Froman & Owen 1990).

Familiarity with previous childcare situations is expected to provide a set of practical knowledge that positively influences the development of anticipated maternal self-efficacy (Bandura, 1997). However, participants acknowledged that their prior experience with children did not encompass all facets of motherhood, necessitating additional forms of learning to improve their mastery of content. This search for knowledge and information during pregnancy is in line with a study conducted in the postpartum period (Samdan et al., 2022), showing the importance of mastery of content. These authors report that primiparous mothers tend to attend more lessons or events than multiparous mothers. In fact, extant literature (Gameiro et al., 2009; Samdan et al., 2022; Shakarami et al., 2021; Zhu et al., 2022) suggests that primiparous mothers generally face a transition to motherhood more difficult than that of multiparous women due to a lack of prior experience. Consequently, it is reasonable for primiparous mothers to actively search for information in order to prepare themselves for the responsibilities and alleviate anxiety and uncertainty about motherhood, ultimately reinforcing their self-efficacy. On the contrary, the emphasis of multiparous mothers on anticipated maternal self-efficacy based on previous experiences is also in line with the literature that highlights the importance of previous experiences in promoting maternal self-efficacy, as it provides knowledge and lessons that shape women's approach to a new pregnancy (Bandura, 1986; Samdan et al., 2022). The richness of these past experiences works as a guiding tool likely to enhance their ability to navigate the complexities of motherhood with a better understanding and a high sense of anticipated maternal self-efficacy.

Additionally, another significant difference in the use of sources of self-efficacy identified in this study relates to the reported use of elements identified as *vicarious experiences* between primiparous and multiparous women. In fact, primiparous women may feel a greater need to search for external information and knowledge in order to prepare for the challenges of motherhood and this may explain why they tend to turn to indirect contact to gain insight and guidance on how to best prepare for their new role as mothers. Social comparison emerge as a strong factor, as it enables primiparous women to

assess their own performance by observing similar people outside their immediate social circle, particularly those who have already experienced motherhood. Furthermore, according to Bandura (1995b), these women tend to look out for competent role models possessing the competences they aspire to acquire. Thus, knowledge is transmitted through the behavior and way of thinking of these competent role models, who teach the observer effective skills and strategies for meeting demands. On the other hand, multiparous women emphasized direct observation, and this can be explained by the fact that these interactions provide concrete learning opportunities, sharing of similar experiences, and practical advice, while strengthening their own sense of self-efficacy (Bandura, 1995; De Montigny & Lacharité, 2005).

*Social persuasions* is one of the sources that is present in both primiparous and multiparous women, although the use of self-talk differs in content between the two groups. In fact, primiparous women tended to resort to self-talk to convince themselves of their ability to cope with the role of mother, while multiparous women used self-talk to increase their sense of anticipated maternal self-efficacy based on their previous successful maternal experiences. This result is consistent with the investigations by Hatzigeorgiadis et al. (2011) and Morris and Kavussanu (2009) who highlight the role of self-talk in promoting self-efficacy and intrinsic motivation. However, the difference found can be explained by the fact that primiparous mothers encounter greater levels of uncertainty due to their lack of previous experience in motherhood (Samdan et al., 2022). In this sense, self-talk can serve as a valuable tool for these mothers, who use it to strengthen their sense of anticipated maternal self-efficacy, and reduce the anxiety associated with the new journey they are about to embark on. Conversely, the fact that primiparous mothers used more direct and indirect messages is in line with the study carried out in the postpartum period by Leahy-Warren (2005) and Samdan et al. (2022), reporting that this type of message is positively associated with increased sense of maternal self-efficacy, especially among primiparous mothers. This can be explained by the fact that primiparous mothers are facing motherhood for the first time and, as a result, may feel an increased need for validation and direct support regarding their maternal abilities. Moreover, these direct and indirect messages stressing their skills and abilities are consistent with Bandura's theory (1997, 2001), which emphasizes the influence of *social persuasions* in developing self-efficacy. Being the recipient of such messages can enhance primiparous mothers self-efficacy and boost their confidence to face the challenges of motherhood (Bandura, 1997, 2001; Peura et al., 2021).

Primiparous women reported more frequently *physiological and affective states*, which may be explained by the fact that they are experiencing motherhood for the first time, which usually involves a

number of significant physical and emotional changes (Boss, 2002; Coyne et al., 2017; Mendes et Silva, 2012). Additionally, concerns pertaining to birth and the prospective welfare of the infant may elicit a range of emotions including anxiety, apprehension, excitement, and happiness. In fact, literature reports that primiparous women may feel more anxious, fearful, and insecure due to their lack of previous experience of motherhood (Shakarami et al., 2021). However, as evidenced by the study conducted by Morris and Usher (2011), these fluctuating physiological and affective states do not necessarily diminish one's sense of anticipated maternal self-efficacy. Experienced multiparous women have already been through at least one pregnancy and birth, and this previous positive experience may provide them an increased sense of anticipated maternal self-efficacy and reassurance about the physiological and affective changes associated with pregnancy (Bandura, 1997). Their prior exposure to these conditions and symptoms enables them to feel more at ease and better adapted to the challenges. Additionally, it is possible that these women have developed effective coping mechanisms for managing the emotional difficulties that may arise during pregnancy due to their past experiences (Bandura, 1986; Samdan et al., 2022).

The experiences and concerns faced during pregnancy and the transition to motherhood can explain why primiparous women reports include *sensitive aspects* more frequently than multiparous women. For primiparous women, motherhood represents a moment of great importance, but also of great uncertainty, since the approach of childbirth and the care of a baby is a completely new and unknown experience for them (Shakarami et al., 2021). As a result, this can give rise to a range of concerns and contemplations about the impending trials of motherhood, thus making this period particularly sensitive for them. In addition, any unforeseen event or incident with an impact on health during pregnancy can be perceived as threatening and worrisome for them, as they may have no previous experience to draw on (Shakarami et al., 2021). Conversely, multiparous women regarded their multiparity as a sensitive period. In fact, multiparous women face additional challenges when having more than one child, such as balancing the needs of their older children with those of the newborn, reorganizing family dynamics, and dealing with the complexities of caring for multiple children (Gameiro et al., 2009; Stewart, 1990). Consequently, the arrival of a new child represents a sensitive period for them, since it involves a significant adjustment in family dynamics and parental responsibilities.

The incidence of *interpretations of events related to the transition to motherhood*, by both primiparous and multiparous women, can be explained by the fact that pregnancy and the transition to motherhood are generally perceived as a fundamental role in a woman's life and a totally positive

experience (Marshall, 1991). Owing to the fact that pregnancy and childbirth are commonly deemed to be happy and exciting events in a woman's life, they are frequently associated with positive and future expectations. Women are frequently subject to cultural narratives and representations that highlight the positive aspects of motherhood, such as the unreserved love between mother and child and the satisfaction that comes from caring for a child (Arendell, 2000). According to Choi et al. (2005), primiparous mothers' expectations of motherhood are strongly influenced by the 'myth of motherhood'. Therefore, these favorable cultural and social messages can shape women's perceptions of the transition to motherhood, naturally leading them towards positivity. This is a contextual factor, which, according to Bandura (1995b), plays a role in modifying the development of anticipated maternal self-efficacy.

### **Limitations and further implications**

Despite our promising results, it is important to consider certain limitations when interpreting current findings. One such limitation is the fact that the sample used in this study may not be entirely representative of the Portuguese population. This is a common issue in qualitative research (Huberman & Miles, 2002), and caution should be taken when translating these findings to future mothers in other contexts. In addition, our findings do not allow understanding how anticipated maternal self-efficacy is formed among individuals from different racial, ethnic, and gender groups. Furthermore, one of the main limitations of this study is the unequal size of the primiparous and multiparous samples. This disparity in sample size may have affected the robustness of the comparative analyses between the groups, potentially making them less sensitive to detecting significant differences. This research has practical implications for health professionals and practitioners specializing in prenatal care. Gaining an understanding into the impact of different sources on anticipated maternal self-efficacy makes it possible to design interventions aimed at enhancing this sense of anticipated maternal self-efficacy in pregnant women. In the end, our study fills a gap in the literature on anticipated maternal self-efficacy by focusing on the pregnancy period and examining differences between primiparous and multiparous mothers. This enhances our understanding of sources and factors influencing the development of anticipated maternal self-efficacy and provides a strong foundation for future research in this area.

The results of this qualitative study shed important light on pregnant women's sources of anticipated maternal self-efficacy, highlighting marked differences between primiparous and multiparous women. In order to better understand this dynamic, it would be interesting to explore several avenues of research in the future. Firstly, a more in-depth analysis of sub-groups within these categories, such as age and ethnicity, could help to elucidate the factors likely to influence the sense of anticipated maternal

self-efficacy. In addition, a cross-cultural comparison of pregnant women's experiences in different societies could highlight the influence of culture on sources of self-efficacy. A longitudinal perspective could also be considered to monitor changes in the sense of anticipated maternal self-efficacy throughout pregnancy and the early stages of motherhood. By considering these different avenues, future research could deepen our understanding of the sources of anticipated maternal self-efficacy in pregnant women and contribute to improving maternal well-being. In addition to these various approaches, it would also be important for future research to consider how sources and factors interact and manifest themselves in unique ways in different contexts. This would enrich the understanding of the concept of self-efficacy, but it would also allow to apply it more effectively in different contexts, contributing to personal development and the achievement of goals in various areas of life. Finally, the fact that all sources of self-efficacy are present in both real-time and anticipatory self-efficacy emphasizes the importance of future studies focused on how self-efficacy is formed and how individuals can strengthen it, not only when we are facing immediate challenges, but also when we are planning future undertakings. Recognizing this continuity between the two contexts allows us to draw on these sources strategically, contributing to the development of motivation and success in achieving goals and overcoming obstacles.

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## **Appendix A**

### ***A semi-structured interview script***

1. Para começar, eu gostaria de lhe perguntar o que é para si maternidade?
2. Como foi receber a notícia de que ia ser mãe, isto é, de que estava grávida?
3. Para si, qual é a importância de ser mãe?
4. Que experiências, razões ou até mesmo motivos da sua vida acha que contribuíram para a sua vontade de ser/não ser mãe?
5. Imaginando uma escala, de 0 a 10, quão preparada acha que está para lidar com as diversas situações que podem surgir depois de o bebé nascer?
  - a. O que a leva a atribuir essa pontuação?
  - b. Ao longo destes meses de gravidez, como é que esta percepção se tem desenvolvido?
  - c. Porquê? O que a leva a concluir isso?
6. Pensando no que falámos até agora, o que considera ter sido mais relevante para construir esta percepção de si enquanto mãe? Porquê?
  - a. Que experiências da sua vida acha que podem ter contribuído para a sua percepção sobre como lidará com os desafios da maternidade?
  - b. Olhando para trás, existe algum (ou alguns) período(s) específico(s) da sua vida particularmente relevante(s) para a forma como se vê como mãe?
  - c. Pode dar algum exemplo que ajude a compreender?
7. Pensando nas pessoas à sua volta, sente que tiveram impacto nesta percepção de si como mãe? E de que forma?
  - a. Consegue identificar atitudes e/ou comportamentos das pessoas que a rodeiam que a tenham marcado de forma positiva?
  - b. E de forma de negativa?
8. Desde que somos crianças aprendemos através da observação dos comportamentos das pessoas que nos rodeiam (seja, família, amigos ou colegas). Que impacto tem ou teve para si ver as pessoas próximas de si realizarem tarefas parentais? Como é que se sentiu?
  - a. Como é que estas experiências influenciaram a sua percepção enquanto mãe?
  - b. Consegue lembrar-se de alguns comportamentos concretos de outras pessoas que possam ter contribuído para este sentimento?

- c. Sente que estas experiências contribuíram para aumentar/ou diminuir a percepção que tem de si como mãe?
- 9. Agora que já se encontra numa etapa mais final da gravidez, quais são os sentimentos e emoções mais predominantes quando pensa no que terá de fazer depois da gravidez enquanto mãe?
  - a. Esses sentimentos ou emoções afetam a sua percepção sobre como lidará com os desafios da maternidade?
  - b. Como? De que maneira?
- 10. Por último, eu só queria colocar uma questão que sei que pode ser um pouco difícil. Considerando toda a sua experiência de vida, e, nomeadamente, tudo o que tem vindo a falar desde o início da entrevista, o que considera que influenciou mais a sua percepção sobre como lidará com os desafios da maternidade?
  - a. De que forma?
- 11. Chegamos ao fim da entrevista, gostaria de acrescentar alguma coisa a esta nossa conversa? Algo que eu não tenha perguntado e que para si seja importante, algo que queira partilhar?