



RESEARCH ARTICLE

Dysfunctional beliefs towards motherhood and postpartum depressive and anxiety symptoms: Uncovering the role of experiential avoidance

Ana Fonseca¹  | Fabiana Monteiro¹ | Maria Cristina Canavarro^{1,2}

¹Center for Research in Neuropsychology and Cognitive-Behavioral Intervention (CINEICC) of the Faculty of Psychology and Educational Sciences, University of Coimbra, Coimbra, Portugal

²Psychological Intervention Unit, Maternidade Daniel de Matos, Centro Hospitalar e Universitário de Coimbra, Coimbra, Portugal

Correspondence

Ana Fonseca, Research Group "Relationships, Development, & Health", Center for Research in Neuropsychology and Cognitive-Behavioral Intervention (CINEICC) of the Faculty of Psychology and Educational Sciences, University of Coimbra, Rua do Colégio Novo, 3001-802 Coimbra, Portugal.

Email: anadfonseca@fpce.uc.pt; ana.fonseca77@gmail.com

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Abstract

Objective This study aimed to examine the relationship between dysfunctional motherhood-related beliefs and postpartum anxiety and depression symptoms, and whether experiential avoidance may be a potential mechanism in explaining these relationships.

Method A sample of 262 postpartum women participated in a cross-sectional online survey.

Results The model presented a good fit (CFI = 0.96, RMSEA = 0.077) suggesting that more dysfunctional motherhood-related beliefs related with maternal responsibility and with others' judgments were associated with higher postpartum anxiety and depressive symptoms. Indirect effects through experiential avoidance were also found.

Conclusions Dysfunctional motherhood-related beliefs are cognitive vulnerabilities for postpartum psychological disorders and should be assessed to identify women that may be prone to early interventions. Moreover, dysfunctional beliefs seem to affect psychopathological symptoms by activating experiential avoidance strategies (e.g., rumination), which may accentuate the frequency of women's negative thoughts and emotions. Early interventions should target the promotion of acceptance of private negative experiences (psychological flexibility).

KEYWORDS

dysfunctional beliefs toward motherhood, experiential avoidance, postpartum anxiety, postpartum depression

Depression and anxiety are prevalent disorders in the postpartum period (Field, 2018; Gelaye, Rondon, Araya, & Williams, 2016; Pearlstein, Howard, Salisbury, & Zlotnick, 2009) and often occur together: approximately 35–50% of women with postpartum depressive symptoms also report anxiety symptoms (Falah-Hassani, Shiri, & Dennis, 2016; Farr, Dietz, O'Hara, Burkley, & Ko, 2014). Postpartum psychological disorders have pervasive consequences for the mother's health (Woolhouse, Gartland, Perlen, Donath, & Brown, 2014) and the child's development (Field, 2018; Stein

et al., 2014), highlighting the need to intervene early and effectively to minimize such effects. However, only more recently (Barnum, Woody, & Gibb, 2013) research began to focus on the study of vulnerability factors (cognitive vulnerabilities) and processes that may be related with postpartum psychological disorders, and that are amenable to change through psychological interventions.

Dysfunctional beliefs toward motherhood encompass motherhood-related beliefs characterized by themes of high performance standards—*perfect motherhood*—and maternal responsibility, personal inadequacy in the maternal role, and maternal role idealization (Sockol, Epperson, & Barber, 2014). Several studies found that dysfunctional beliefs toward motherhood predict the occurrence of depressive symptoms in the postpartum period (Fonseca & Canavarro, 2018; Phillips, Sharpe, Matthey, & Charles, 2010; Sockol et al., 2014; Thompson & Bendell, 2014; Wittkowski, Garrett, Cooper, & Wieck, 2016), being a cognitive vulnerability factor for postpartum depression. Moreover, the studies conducted by Phillips et al. (2010) and by Sockol et al. (2014) found that motherhood-related dysfunctional beliefs were found to predict postpartum depression symptoms over and above general dysfunctional beliefs. However, the research exploring the relationship between dysfunctional beliefs toward motherhood and postpartum anxiety symptoms is almost nonexistent, with the only exception being the study of Sockol et al. (2014), which found that more dysfunctional beliefs toward motherhood were also associated with higher anxiety symptoms. Further studies are needed to understand whether similar cognitive vulnerabilities are involved in a broad range of postpartum psychological disorders (i.e., depression and anxiety).

Furthermore, the mechanisms through which this cognitive vulnerability affect women's psychopathological symptoms should be further explored. One of such mechanisms may be experiential avoidance. Experiential avoidance can be defined as the unwillingness to remain in contact with private negative experiences (e.g., thoughts, emotions), which translate into inordinate efforts to avoid or alter them, in a way that compromises valued-based behaviors and choices (Hayes, Luoma, Bond, Masuda, & Lillis, 2006; Hayes, Strosahl, Bunting, Twohig, & Wilson, 2004). There is evidence that experiential avoidance plays an important role in the etiology and maintenance of psychological disorders, being considered a broad transdiagnostic risk factor for psychological disorders and therefore contributing to its comorbidity (Spinhoven, Drost, Rooij, Hemert, & Penninx, 2014). To our knowledge, there are only two studies that addressed experiential avoidance in the postpartum period. One of the studies (Zhu, Cui, Xiong, & Zhu, 2015) found that higher experiential avoidance was associated with higher postpartum depressive symptoms, while the other study found that higher cognitive fusion, a construct related with experiential avoidance, was associated with increased symptoms of depression and anxiety (Li, Zhu, Cao, Jin, & Zhu, 2016).

Although the role of experiential avoidance in explaining the relationship between motherhood-related dysfunctional beliefs and postpartum psychopathological symptoms has not been previously explored, there are some reasons to support this hypothesis. First, the theoretical rationale underscoring the relationship between these constructs. Motherhood-related dysfunctional beliefs seem to predispose women to a more biased interpretation of motherhood-related events (e.g., cognitive biases in recognizing emotional expressions; Webb & Ayers, 2015), which may translate into more negative thoughts and emotions. The increase of such negative private experiences may heighten women's experiential avoidance, namely their unwillingness to be in contact with their thoughts and feelings, and the tentative to control them or avoid them (Bond et al., 2011). Although this may reduce women's discomfort in the short-term, it has the paradoxical effect of getting women entangled with their private experiences' content, which translates into an increase of the women's unwanted private experiences in the long-term and in less value-based actions, therefore contributing to emotional distress (Hayes et al., 2006).

Second, there is some empirical evidence on these relationships in the general population. There are two studies that examined the mediating role of experiential avoidance in the relationship between general dysfunctional beliefs and emotional distress and found evidence of such effects. Cristea, Montgomery, Szamoskozi, and David (2013) found that more general dysfunctional beliefs lead to higher distress through higher levels of experiential avoidance, in a sample of college students assessed during a stressful period of their semester. A similar pattern of results was found in the other study (Ruiz & Odriozola-González, 2015, 2016), in which experiential avoidance significantly mediated the relationship between depressogenic schemas and depressive symptoms. Moreover, although not directly focusing in dysfunctional beliefs and psychopathological symptoms, two recent studies found that early maladaptive schemas (Fischer, Smout,

& Delfabbro, 2016) and memories of shame experiences (Carvalho, Dinis, Pinto-Gouveia, & Estanqueiro, 2015) were found to affect psychopathological symptoms through the increase of individual's unwillingness to experience unpleasant internal thoughts and feelings related with their memories or their early-maladaptive schemas, and of attempts to control it.

Taken into account that the postpartum period is socially conceptualized as a period of positive emotions of happiness and fulfillment, which may accentuate the difficulty in accepting the possible negative internal experiences (e.g., emotions, thoughts) that women often experience, this study has two main aims: (1) to examine whether dysfunctional beliefs toward motherhood were associated with both anxiety and depressive postpartum symptoms and (2) to examine whether the effect of dysfunctional beliefs toward motherhood on postpartum anxiety and depressive symptoms occurs indirectly, through experiential avoidance.

1 | METHODS

1.1 | Sample

The sample comprised 262 women in the postpartum period. Most women were married/cohabiting ($n = 234, 89.3\%$) and were, on average, 31.82 years old (standard deviation [SD] = 4.55). Most women were currently employed ($n = 201, 77.9\%$), had completed higher education ($n = 193, 73.7\%$), and had a household income of 1000–2000€ ($n = 111, 42.4\%$). A total of 71.8% of the women lived in an urban area ($n = 188, 71.8\%$). Concerning clinical characteristics, this was the first child for 66.4% ($n = 174$) of women. About half of the infants were male ($n = 135, 51.5\%$) and the infant's age was, on average, 4.37 months ($SD = 4.55$). More than a third of the women (37.0%, $n = 97$) reported prior history of psychopathological problems (e.g., depression, anxiety).

1.2 | Procedure

This study was part of a larger study that aimed to understand women's cognitive and emotional experience during the postpartum period, which was approved by the Ethics Committee of the Faculty of Psychology and Educational Sciences, University of Coimbra. A cross-sectional internet survey was conducted in Portugal with the following eligibility criteria: (1) being a woman in the postnatal period (up to 12 months postpartum); (2) being 18 years or older; and (3) having a level of literacy that allowed them to understand the assessment protocol. The participants were invited to participate in the study both in-person (potential participants were contacted by the research team during their postpartum hospitalization at the Maternity Daniel de Matos, Centro Hospitalar e Universitário de Coimbra, EPE; $n = 107$ women accepted to participate in the study and were provided with the survey weblink through email) and online (the study was advertised on social media websites, e.g., Facebook, and on websites/forums focusing on pregnancy and childbirth). In both cases the study goals were presented and a weblink to the internet survey (hosted by LimeSurvey®) was provided. The participants were a self-selected sample who replied to the in-person or to the online recruitment post. Before accessing the survey, participants were given information about the study's goals and the ethical issues underpinning the study (e.g., confidentiality, anonymity, voluntary participation). Only those who gave their informed consent to participate in the study (by answering affirmatively to the question "Do you agree to participate in this study?") were given access to the assessment protocol. Access to the survey was secure, and the survey software prevented the same user from completing the survey more than once. Data collection took place between December 2016 and March 2017.

1.3 | Measures

Sociodemographic and clinical characteristics were assessed through questionnaires, and information was gathered regarding age, marital status, education, employment status, household income, number of children, and prior history of psychopathological problems.

1.4 | Dysfunctional beliefs toward motherhood

The Attitudes Towards Motherhood scale (AToM; Sockol et al., 2014; Portuguese version: Costa, Rodrigues, Canavarro, & Fonseca, 2018) is a self-report measure comprising 12 items, answered on a 6-point Likert scale (from 0 = *always disagree* to 5 = *always agree*), and it is organized in three dimensions: Beliefs related to Others' Judgments (e.g., "If my baby is crying, people will think I cannot care for him/her properly"), Beliefs related to Maternal Responsibility (e.g., "Good mothers always put their baby's needs first"), and Beliefs related to Maternal Role Idealization (e.g., "It is wrong to have mixed feelings about my baby"). Higher scores indicate more dysfunctional attitudes toward motherhood. The Portuguese version of the AToM scale presents good levels of internal consistency ($\alpha = 0.84$ for the total scale) and convergent validity with other measures (Costa et al., 2018). In our sample, the Cronbach's alpha values ranged from 0.76 (Beliefs related to Maternal Responsibility) to 0.87 (Beliefs related to Maternal Role Idealization).

1.5 | Experiential avoidance

The Portuguese version of the Acceptance and Action Questionnaire-II (AAQ-II; Bond et al., 2011; Portuguese version: Pinto-Gouveia, Gregório, Dinis, & Xavier, 2012) was used to measure experiential avoidance (e.g., "I'm afraid of my feelings"). Women were asked to rate each of the seven items on a 7-point Likert scale ranging from 1 (*never true*) to 7 (*always true*). Higher scores are reflective of greater experiential avoidance. In Portuguese validation studies, an excellent internal consistency ($\alpha = 0.90$) was found (Pinto-Gouveia et al., 2012). In the present sample, Cronbach's alpha was 0.93.

1.6 | Anxiety symptoms

To assess anxiety symptoms, the Anxiety Subscale of the Portuguese version of the Anxiety Hospital Anxiety and Depression Scale (HADS-A; Zigmond & Snaith, 1994; Portuguese version: Pais-Ribeiro et al., 2007) was used. This subscale comprises seven items that are scored on a response-scale with four alternatives ranging between 0 and 3. The total score for the anxiety subscale ranges from 0 to 21, with higher scores indicating more symptomatology. A score of 11 or higher is indicative of probable presence ("*caseness*") of anxiety symptoms. The Portuguese version presents good internal consistency values ($\alpha = 0.76$). In our sample, Cronbach's alpha was 0.86.

1.7 | Depressive symptoms

The Portuguese version of the Edinburgh Postnatal Depression Scale (EPDS; Cox, Holden, & Sagovsky, 1987; Portuguese version: Areias, Kumar, Barros, & Figueiredo, 1996) was used to assess the presence of depressive symptoms, reflecting the woman's experience of the last 7 days concerning several symptoms (e.g., sadness and tearfulness). EPDS is a widely used 10-item screening scale for postpartum depression using a 4-point Likert scale. The low threshold for EPDS (a score higher than 9 indicates a possible depressive disorder; Areias et al., 1996) allows the identification of women that may present some significant postnatal distress symptoms that may be worthy of further assessment, rather than only women with an established clinical diagnosis of depression. In Portuguese validation studies, good internal consistency ($\alpha = 0.85$), test-retest fidelity ($\alpha = 0.75$), and external validity ($r = 0.86$) were found. In our sample, Cronbach's alpha was 0.89.

1.8 | Data analyses

Statistical analyses were performed using the *Statistical Package for the Social Sciences* (IBM SPSS, version 22.0; IBM SPSS, Chicago, IL) and the *Analyses of Moments Structure* (IBM AMOS, version 22.0; AMOS IBM Corporation, Meadville, PA). Descriptive statistics and Pearson bivariate correlations were computed for sociodemographic and study variables.

A path analysis model examining the direct and indirect effects of dysfunctional beliefs toward motherhood (Beliefs related to Others' Judgments, Beliefs related to Maternal Responsibility, Beliefs related to Maternal Role Idealization) on Anxiety and Depression symptoms, through experiential avoidance, was tested using the maximum likelihood estimation method (Kline, 2005). The sociodemographic and clinical variables that were found to be significantly associated with the dependent variables (Anxiety and Depression symptoms) in the preliminary analyses were introduced as covariates in the path analyses model. The sample size required to perform a path analysis should take into consideration the complexity of the model (i.e., the ratio between the number of participants and the parameters to be estimated should be approximately 10; Kline, 2005). In this study, the ratio between sample size and free parameters to be estimated was 13.1, indicating that the sample size was adequate to conduct a path analyses. The overall model fit was ascertained using the reference values for the main fit indices: the chi-squared goodness-of-fit statistic (P value > 0.05), the Comparative Fit Index (CFI; ≥ 0.95), and the Root-Mean-Square of Approximation (RMSEA; ≤ 0.08 ; Hu & Bentler, 1998). The statistical significance of the paths was established as $P < .05$.

In accordance with recommendations (MacKinnon & Fairchild, 2009; Shrout & Bolger, 2002), bootstrap procedures were used to test for the significance of the indirect effects, by estimating the 95% bias corrected confidence interval (BCCI). Indirect effects are considered significant if the bootstrapped confidence interval does not include zero. The empirical power tables proposed by Fritz and MacKinnon (2007) for mediation models suggest that the sample size of this study is sufficient to find a mediated effect that includes small to medium effects in a and b paths with a power of .80.

2 | RESULTS

2.1 | Preliminary results

The correlations between the study variables and the sociodemographic and clinical variables are presented in Table 1. Globally, more dysfunctional beliefs toward motherhood were associated with higher experiential avoidance and with higher depressive and anxiety symptoms. Also, there was a strong and positive correlation between anxiety and depressive symptoms. Moreover, there is a significant association between being unemployed, having a lower income and presenting higher anxiety and depressive symptoms, and a significant association between having history of psychopathology and an older infant, and presenting higher anxiety symptoms. These covariates were introduced in the path model.

2.2 | The direct and indirect effects of motherhood-related dysfunctional beliefs on anxiety and depressive symptoms: The indirect effects of experiential avoidance

The model representing the relationships between dysfunctional attitudes toward motherhood, experiential avoidance and postpartum depression and anxiety symptoms is depicted in Figure 1. The results indicated that the model had a good fit to the data ($\chi^2_{(22)} = 56.39, P < .001$; CFI = 0.96; RMSEA = 0.077).

More dysfunctional beliefs related to others' judgments and to maternal responsibility were significantly associated with higher experiential avoidance and with higher depressive symptoms. No significant associations were found between beliefs related to maternal role idealization and experiential avoidance or with anxiety and depressive symptoms. Moreover, higher experiential avoidance was associated with both higher anxiety and depressive symptoms, which are also strongly correlated (see Figure 1).

The indirect effects of dysfunctional beliefs on anxiety and depression symptoms through experiential avoidance were also examined and are presented in Table 2. The bootstrap confidence intervals (2,000 bootstrap samples) of the indirect effects indicated that the relationship between more dysfunctional beliefs related to others' judgments and maternal responsibility and higher depressive and anxiety symptoms occurred through higher experiential avoidance (see Table 2).

TABLE 1 Descriptives and Pearson correlations between the study variables and the sociodemographic and clinical variables ($n = 262$ women)

	<i>M(SD), Range</i>	(1)	(2)	(3)	(4)	(5)	(6)
1. AToM-OJ	1.69 (1.30), 0-5	-	-	-	-	-	-
2. AToM-MR	2.20 (1.15), 0-5	0.633***	-	-	-	-	-
3. AToM-MRI	2.42 (1.60), 0-5	0.285***	0.402***	-	-	-	-
4. AAQ-II	19.07 (9.42), 7-48	0.604***	0.555***	0.214***	-	-	-
5. EPDS	7.36 (5.07), 0-25	0.543***	0.520***	0.168**	0.677***	-	-
6. HADS-A	4.83 (3.81), 0-18	0.522***	0.505***	0.213**	0.685***	0.830***	-
7. Age	-	-0.072	-0.086	-0.069	0.039	0.032	0.022
8. Marital status	-	-0.001	0.014	-0.073	-0.003	0.054	0.010
9. Education level	-	0.008	-0.123*	-0.153*	-0.106	-0.078	-0.051
10. Profession status	-	-0.100	-0.147*	0.013	-0.216**	-0.198**	-0.146*
11. Income	-	-0.132*	-0.189**	-0.245**	-0.115	-0.161**	-0.131*
12. Residence	-	0.046	0.053	-0.040	-0.007	-0.079	-0.029
13. Parity	-	0.110	0.043	0.169**	-0.069	-0.071	-0.097
14. Infant's age	-	0.012	0.083	0.013	0.091	0.084	0.138*
15. Infant's gender	-	0.005	0.027	-0.026	0.048	0.004	0.006
16. History of psychopathology	-	0.128*	0.068	0.048	0.224***	0.087	0.155*

Note. AToM-OJ, Dysfunctional beliefs related with Others' Judgments. AToM-MR, Dysfunctional beliefs related with Maternal Responsibility. AToM-MRI, Dysfunctional beliefs related with Maternal Role Idealization. AAQ-II, Experiential avoidance. EPDS, Depressive symptoms. HADS-A, Anxiety symptoms. Professional Status (dummy coded: 1 = employed; 0 = unemployed/student). Marital status (dummy coded: 1 = married; 0 = single/divorced/widow). Residence (dummy coded: 1 = urban area; 0 = rural area). Parity (dummy coded: 1 = primiparous; 0 = multiparous). Infant's gender (dummy coded: 1 = female; 0 = male). History of psychopathology (dummy coded: 1 = yes; 0 = no).

* $P < 0.05$; ** $P < 0.01$; *** $P < 0.001$.

Moreover, the direct effects of dysfunctional beliefs related to others' judgments and related to maternal responsibility on depressive symptoms, but not on anxiety symptoms, are still significant, controlling for the indirect effects of experiential avoidance.

3 | DISCUSSION

This exploratory study provides some preliminary findings that add to the existing knowledge on the role of dysfunctional beliefs toward motherhood (as a cognitive vulnerability factor) and of experiential avoidance (as a self-regulatory mechanism to address private negative experiences) in the occurrence of postpartum depressive and anxiety symptoms. The simultaneous consideration of depressive and anxious symptomatology in this comprehensive model, and the similarities found in the mechanisms associated with both depression and anxiety postpartum symptoms, are particularly relevant considering the frequent comorbidity between both types of symptomatology in the postpartum period (Farr et al., 2014). In fact, this was also found in the present study, as anxiety and depression symptoms were found to be highly correlated. A deeper analysis of the results allows us to reflect on several issues.

First, our results show that more dysfunctional beliefs toward motherhood related with others' judgments and with maternal responsibility were associated not only with higher depressive symptoms, congruently with prior research (Fonseca & Canavaro, 2018; Sockol et al., 2014; Wittkowski et al., 2016), but also with higher anxiety symptoms, suggesting that dysfunctional beliefs toward motherhood may be conceptualized as a broad cognitive vulnerability for postpartum psychological disorders (anxiety and depression) and not only for postpartum depression. Dysfunctional

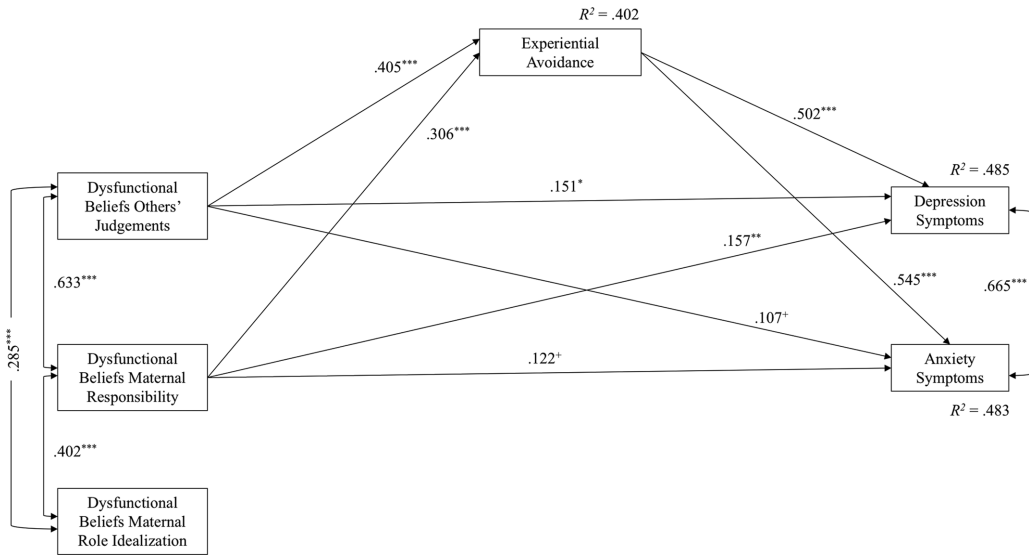


FIGURE 1 Direct and indirect effects of the relationship between dysfunctional attitudes toward motherhood and anxiety and depressive symptoms, through experiential avoidance ($n = 262$)

Note. Path values represent standardized regression coefficients. For simplicity, measurement error terms, nonsignificant paths, and the correlation of covariates with the dependent variables are not presented. The estimate of the correlation between infant's age and anxiety was significant (estimate = 0.096, $P = 0.039$), whereas the estimates of the correlation between professional status and anxiety (estimate = 0.011, $P = 0.856$) and depression (estimate = -0.074, $P = 0.236$), of the correlation between income and anxiety (estimate = -0.053, $P = 0.394$) and depression (estimate = -0.097, $P = 0.120$), and of the correlation between history of psychopathology and anxiety (estimate = 0.065, $P = 0.149$) were not significant.

+ $P < 0.10$, * $P < 0.05$, ** $P < 0.01$, *** $P < 0.001$

TABLE 2 The total, direct and indirect effects of dysfunctional beliefs on depression and anxiety symptoms through psychological inflexibility

	Total	Direct	Indirect
Dysfunctional Beliefs Others' Judgments → AAQ-II → EPDS	0.354***	0.151*	0.203 [0.140, 0.269]
Dysfunctional Beliefs Maternal Responsibility → AAQ-II → EPDS	0.311***	0.157**	.0154 [0.099, 0.217]
Dysfunctional Beliefs Others' Judgments → AAQ-II → HADS-A	0.327***	0.107	0.220 [0.155, 0.294]
Dysfunctional Beliefs Maternal Responsibility → AAQ-II → HADS-A	0.289***	0.122+	0.167 [0.108, 0.231]

Note. AAQ-II, Acceptance and Action Questionnaire-II (Experiential Avoidance); EPDS, Edinburgh Postpartum Depression Scale (Depressive Symptoms); HADS-A, Hospital Anxiety and Depression Scale (Anxiety Symptoms).

+ $P < 0.10$; * $P < 0.05$; ** $P < 0.01$; *** $P < 0.001$.

beliefs related to maternal responsibility and to the judgment of others seem to have underpinned the self-imposed high standards of performance (the myth of *perfect motherhood*) in the maternal role (Blissett & Farrow, 2007), which may translate into the women's conditioning of their personal value as a mother to their performance and the fear of failure and of others' criticisms.

Second, experiential avoidance seems to play a role in the relationship between dysfunctional beliefs and psychopathological symptoms. Specifically, women with more dysfunctional beliefs related to others' judgments and maternal responsibility tend to present higher levels of experiential avoidance, which, in turn, are associated with higher depressive and anxiety symptoms. In fact, although the direct effects of dysfunctional beliefs on depressive symptoms are still significant, despite the indirect effect of experiential avoidance, the relationship between dysfunctional beliefs and anxiety symptoms seem to occur only indirectly, through experiential avoidance. Despite being innovative results in the postpartum context, these results were similar to the ones found in prior studies with the general population (Cristea et al., 2013; Ruiz & Odriozola-González, 2016), and suggest that dysfunctional beliefs may be underlying cognitive vulnerability factors that in negative situations activate experiential avoidance strategies, which may accentuate the frequency of negative thoughts (i.e., avoided thoughts return with more frequency) and generate psychopathological symptoms.

In the postpartum context, when women self-impose high standards in their maternal performance (i.e., have more dysfunctional beliefs related with maternal responsibility and others' judgments), they may present with more frequent postpartum-specific negative automatic thoughts (Fonseca & Canavarró, 2018) and negative emotions, which they may have greater difficulties in accepting, and increase their tendency to engage in experiential avoidance strategies. These experiential avoidance strategies are intentional strategies to diminish or extinguish painful private experiences (e.g., negative thoughts) with which they are unwilling to cope (Hayes et al., 2006; Hayes et al., 2004), and may include strategies, such as rumination (as a way to realize why the person is thinking and feeling in a negative way; Barnum et al., 2013), or behavioral avoidance of activities that may lead to negative thoughts and feelings (e.g., avoidance of new experiences with the baby, by fearing that something might go wrong). Although experiential avoidance strategies appear to have a short-term protective effect, they may begin to guide women's behavior by avoiding unpleasant emotions and thoughts, rather than pursuing behaviors that are in accordance with their parenting values. In the long-term, these experiential avoidance strategies may lead to a perception of failure/ineffectiveness in their maternal role performance, which paradoxically may increase the negative experiences (thoughts and emotions) that women try to suppress (Hayes et al., 2006; Hayes et al., 2004) and were associated with the occurrence of depressive and anxious symptoms. The relationship between experiential avoidance and postpartum psychopathological symptoms found in the present study is congruent with the one found in two recent studies (Li et al., 2016; Zhu et al., 2015).

Finally, contrary to our hypothesis, no significant relationships were found between dysfunctional beliefs related to maternal role idealization and experiential avoidance or psychopathological symptoms. Although further studies should explore this hypothesis, it is possible that these results were found because this dimension of dysfunctional beliefs is less related with the women's personal value (personal failure and others' judgments) than the remaining dimensions.

Despite the important contributions of this study, it also has limitations that need to be acknowledged. First, the cross-sectional design of the study compromises the establishment of causal relationships among the study variables, although the directional paths tested in the analyses were theoretically and empirically grounded. Second, the self-selected nature (due to online recruitment) of our sample, which is composed of mostly highly educated and married women, may compromise the representativeness of our results. The fact that several covariables were introduced in the path analyses model allow the statistical control of some additional sociodemographic and clinical characteristics of the sample that may have been influencing the occurrence of anxiety and depression symptoms. Third, data collection relied exclusively on self-report questionnaires to measure psychopathological symptoms, which allow the identification of women presenting psychopathological symptoms of anxiety and depression that may be worthy of clinical attention. The investigation of the mechanisms highlighted in the present study should be replicated in a large clinical sample (i.e., women with a clinical diagnosis of postpartum depression or anxiety disorders).

The findings of the present study allow us to reflect on several implications for clinical practice. First, postpartum anxiety symptoms should not be overlooked, as they may often occur in comorbidity with depressive symptoms. Screening protocols should also include anxious symptoms, and prevention and treatment should consider the different constellations of symptoms that may occur in the postpartum period. Second, the current results provide support

for the role of cognitive risk factors for the occurrence of postpartum psychological disorders, highlighting the need to comprehensively evaluate them with specific measures and to identify early on women presenting dysfunctional beliefs toward motherhood to implement preventive interventions aiming to challenge those beliefs (e.g., by debating the helpful/unhelpful nature of those beliefs and the misconceptions of beliefs as “absolute truths”; by discussing the myths of perfect motherhood). Dysfunctional beliefs can be seen as verbal rules that increase women's cognitive fusion with their negative private experiences (thoughts and emotions) and may prompt the use of experiential avoidance strategies (Ruiz & Odriozola-González, 2016). This study's findings have important implications for the design of effective psychological interventions aiming at preventing and treating postpartum depression and anxiety disorders, such as interventions that target the promotion of psychological flexibility, a self-regulatory skill in which individuals are able to regulate their emotions and actions despite the experience of unpleasant thoughts and feelings (e.g., through Acceptance and Commitment Therapy).

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ORCID

Ana Fonseca  <http://orcid.org/0000-0003-1395-1406>

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