Common Negative Thoughts in Early Motherhood and Their Relationship to Guilt, Shame and Depression

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Abstract

New mothers in Western societies report being influenced by ideologies which suggest mothering comes naturally to women and is joyful and fulfilling. However, research reveals motherhood-related negative thoughts are common even among non-depressed new mothers and it has been suggested experiencing such thoughts may be related to guilt and shame. This study updates and extends Hall and Wittkowski's (2006) prevalence survey of motherhood-related negative thoughts by assessing new mothers' perceptions of the social acceptability of negative thoughts, and by exploring relationships with guilt, shame and psychological distress. A cross-sectional survey design was used. A self-selected sample of non-clinical new mothers (N = 395) from the United Kingdom and Ireland completed online questionnaires including measures of the frequency and social acceptability of motherhood-related negative thoughts, shame and guilt proneness, depression and motherhood experience. Hierarchical regression analyses were used to explore relationships between variables. The frequency of negative thoughts was much higher than reported by Hall and Wittkowski. After controlling for demographic variables and social support, frequency of negative thoughts significantly predicted shame and guilt, whereas social acceptability of negative thoughts significantly predicted guilt. Negative thoughts, shame, guilt and motherhood experience relative to expectations significantly predicted depression score. These results suggest that negative thoughts are more common in early motherhood than previously reported, are considered socially unacceptable, and are related to guilt, shame and depression scores. The findings increase our understanding of postnatal distress in non-clinical populations. Future research should explore information and/or interventions aimed at "normalising" negative thoughts in early motherhood.

Keywords: negative thoughts; guilt; shame; postnatal depression; hierarchical regression

Highlights

- Negative thoughts are more frequent in non-clinical new mothers than previously reported.
- New mothers find negative thoughts related to motherhood difficult to share with others.
- Frequency of negative thoughts in new mothers is related to guilt and shame.
- Frequency of negative thoughts, guilt and shame are related to depression score.
- Interventions for mothers that "normalise" negative thoughts should be considered.

Common Negative Thoughts in Early Motherhood and Their Relationship to Guilt, Shame and Depression

New mothers in Western societies report that they are influenced by ideologies suggesting motherhood is natural, joyful and fulfilling (Choi et al., 2005; Kauppi et al., 2012; Miller, 2005). The social construction of motherhood in these cultures is that "real" women are "good" mothers (Chrisler, 2013) and that caring for a baby is instinctive (Choi et al., 2005; Miller, 2005; Wardrop & Popadiuk, 2013). In contrast to more interdependent cultures, where family members may assist in postnatal care (e.g. Keller's, 2007, observations of Cameroonian Nso families), women in Western cultures are largely expected to "cope" with caring for their baby independently, whilst also remaining in control of domestic and social tasks (Choi et al., 2005; Miller, 2005). These cultural narratives contribute to women's expectations of motherhood (Kauppi et al., 2012; Miller, 2005). However, expectations do not always reflect reality and mothers frequently report a variety of forms of postnatal distress including, but not limited to, stress, anxiety and depression (Coates et al., 2014; Coates et al., 2015).

In 2006, Hall and Wittkowski surveyed a non-depressed population of new mothers in the United Kingdom (UK), and found negative thoughts and appraisals about motherhood were common. For example, 38% reported thinking "having a baby is not fantastic like I expected". The negative thoughts that these non-depressed mothers were asked about had initially been derived from thoughts reported by depressed mothers, leading the authors to conclude that negative thoughts in early motherhood are not limited to those with a clinical disorder but, instead, lie on a continuum of varying intensity and frequency. The traditional view of perinatal mental health has tended to categorise women into those with a mental illness (which is often referred to as postnatal depression, though clinically may encompass a range of symptoms including anxiety) and those without. This blunt characterisation of "well" and "ill", however, has been criticised for failing to capture the full picture of women's postnatal psychological experience (Coates et al., 2015; Green, 1998). Hall and Wittkowski's results similarly challenged this dichotomy, suggesting mothers who have no diagnosis, or who consider themselves to be well, may still experience some degree of postnatal distress.

It is over a decade since Hall and Wittkowski's (2006) assessment of the prevalence of negative thoughts in early motherhood and the experience of new mothers has changed in the intervening years. For example, there has been a proliferation of social media and online parental forums, which have been found to be sources of support and reassurance but have also been related to pressure and stress (Bartholomew et al., 2012; Moore & Ayers, 2017; Padoa et al., 2018). There have also been signs in the last decade of an increase in mental health knowledge and a reduction of stigma within England (Henderson et al., 2020), meaning mothers'

awareness of and attitudes to their own thoughts and feelings may differ now from the previous decade. Given the changed sociocultural environment, it is timely to repeat Hall and Wittkowski's survey of the frequency of postnatal negative thoughts and to extend the findings by exploring the psychological impact of such thoughts.

The Emotional Experience of Negative Thoughts: Guilt, Shame and Social Acceptability

In their paper, Hall and Wittkowski (2006) suggested that having negative thoughts at a time of supposed joy may be linked to feelings of either guilt or unacceptability, however they did not explore this hypothesis. Their suggestion is given some support by qualitative research which has linked negative motherhood-related thoughts to feelings of both guilt and shame. For example, mothers previously reported experiencing guilt at perceiving they were not bonding with their baby or at not being as happy as they had expected (Kauppi et al., 2012). Rotkirch & Janhunen (2009) found that women felt guilt and shame for missing the life they had before becoming a parent, and Choi et al. (2005) found women felt inadequate for thinking they could not cope with motherhood. In addition, Liss, Schiffrin and Rizzo's (2013) quantitative study found that the discrepancy between mothers' perception of the ideal mother and their own mothering was correlated with both guilt and shame. Existing research, therefore, supports the suggestion that experiencing negative thoughts in early motherhood may be connected to difficult emotions and, given the apparent prevalence of such thoughts, this hypothesis deserves attention.

The terms "shame" and "guilt" are often used interchangeably in lay conversation, making it difficult to distinguish between them (Tangney et al., 2007). There is, however, a large body of literature on these "self-conscious" or "moral" emotions which seeks to differentiate between them both theoretically and experimentally (Tangney et al., 2007). One longstanding and commonly cited distinction is that guilt involves negatively evaluating a specific action or behaviour (e.g. "I did something bad"), whereas shame involves negatively evaluating the global self (e.g. "I am bad because of what I did") (Lewis, 1971). Another difference is that, whereas shame and guilt both have a social dimension, someone who is feeling shame is more likely to worry about how other people might judge them than someone who is experiencing guilt (Tangney et al., 2007).

Hall and Wittkowski (2006) did not measure the extent to which their sample believed that their negative thoughts might be judged by others, however this factor may play a role in new mothers' emotional experience. Given the influence of cultural narratives suggesting motherhood should be natural and fulfilling (Choi et al., 2005; Kauppi et al., 2012; Miller, 2005), it is plausible that women consider having motherhood-related negative thoughts to be socially unacceptable. Theoretically, it is only a short step from here to experiencing shame. Qualitative literature makes frequent reference to women's fears of being seen as a "bad"

mother who is failing to live up to cultural expectations (Choi et al., 2005; Kauppi et al., 2012; Rotkirch & Janhunen, 2009). If new mothers believe negative thoughts are socially unacceptable they may also judge themselves as "bad" when they have such thoughts, thus making the kind of global self-judgements that are associated with shame. Alternatively, several studies have suggested that women internalise the social ideals of motherhood (Choi et al., 2005; Seagram & Daniluk, 2002; Wardrop & Popadiuk, 2013), meaning that if mothers believe negative thoughts to be socially unacceptable they may also consider them to be behavioural failings (e.g. "it is wrong to have that thought"), triggering guilt. In support of this suggestion, Liss et al.'s (2013) work on self-discrepancy theory found that women who felt they were failing to live up to their internalised concept of the ideal mother experienced higher levels of guilt as well as shame. In exploring the emotional experience of negative thoughts in early motherhood, it is therefore prudent to consider the relationship between the social acceptability of such thoughts and feelings of both guilt and shame.

Postnatal Distress: Relationships With Negative Thoughts, Guilt and Shame

Negative thoughts, guilt and shame in early motherhood are important not just because they are intrinsically unpleasant but because all three factors have, to a greater or lesser degree, been linked to postnatal distress and depressive symptoms. The connection between specific motherhood-related thoughts and postnatal distress has already been highlighted by previous research. For example, Henshaw et al. (2014) found that expectations of motherhood predicted emotional adjustment in the early postpartum period. Furthermore, the interaction of depression score at two days postpartum with mothers' expectations about their skill as a mother significantly predicted depression score at 6 weeks postpartum. Harwood et al. (2007) found that the discrepancy between pre-birth expectations and actual experience significantly predicted postnatal depression at 4 months postpartum, even after accounting for prenatal depression. Additionally, mothers' negative thoughts about infant feeding have been found to be related to depression in quantitative research (Dennis et al., 2004; Dias & Figueiredo, 2015) and to guilt and shame in qualitative research, with mothers experiencing both emotions when they think they have done something "wrong" in the feeding of their child (Lakshman et al., 2009; Thomson et al., 2014).

Looking more widely than the postnatal period, Beck's (1970) well established cognitive theory of depression suggests that recurrent, intrusive and uncontrollable negative thoughts are among the symptoms of depression. Significant life stressors (of which having a baby may be one) can activate patterns of negative cognitions, including automatic negative thoughts and negative views of the self, the world and the future (e.g. Clark & Rhyno, 2005; Gotlib & Joorman, 2010). Cognitive research has repeatedly found that such thoughts

and views are not unique to mental illness but lie on a continuum, with the same cognitions present in non-clinical individuals, albeit less frequently or intensely (e.g. Clark & Rhyno, 2005). Hall and Wittkowski (2006) have already demonstrated that non-depressed mothers experience the same negative thoughts about motherhood as depressed mothers. Given the relationship between negative thoughts and depression posited by the cognitive perspective, it is feasible that new mothers who experience more frequent negative thoughts also lie higher on the depression continuum than those who experience them less frequently.

There are also strong theoretical reasons for exploring the role of shame and guilt in postnatal distress. A large body of research has previously established the association between shame and depression in the general population (Kim et al., 2011; Tangney et al., 2007). Guilt, on the other hand, has been found to be an adaptive emotion which prompts constructive behaviour and is generally unrelated to psychological problems (Kim et al., 2011; Tangney et al., 2007). Indeed, Dunford and Granger (2017) found that shame proneness significantly predicted depressive symptoms in new mothers, whereas guilt proneness did not. However, it has been suggested that certain "maladaptive" forms of guilt may be as strongly related to depression as shame. Kim et al. (2011) found that the associations of both "contextual-maladaptive guilt" (involving an exaggerated responsibility for uncontrollable events) and "generalised guilt" (involving guilt that is divorced from specific contexts) were as strongly associated with depression as shame. The relationships between guilt, shame and depression, therefore, are complex and require further clarification in new mothers. In addition, these variables need to be considered within their sociodemographic context. In particular, lower socioeconomic status (SES) and lower social support are both known risk factors for postnatal depression (O'Hara & Segre, 2014).

In summary, Hall & Wittkowski (2006) demonstrated that negative thoughts were common in the postnatal period among women who had not been diagnosed as clinically depressed. They suggested that these thoughts may be linked to feelings of guilt and shame. This idea is supported by qualitative and quantitative research (Kauppi et al., 2012; Liss et al., 2013; Rotkirch & Janhunen, 2009) and warrants systematic testing. The perceived social acceptability of mothers' negative thoughts may also be related to feelings of guilt and shame, but this association has not been tested. In addition, the relationships between maternal negative thoughts, guilt, shame and psychological distress require further clarification. Therefore, the aims of this research were twofold: (1) to update and extend Hall and Wittkowski's prevalence survey of negative thoughts among non-depressed new mothers by exploring the frequency and social acceptability of negative thoughts, and (2) investigate the relationships between frequency of negative thoughts, social acceptability of negative thoughts, guilt, shame and depressive symptoms. It was hypothesized that, after controlling for demographic

variables (SES and number of children) and social support, (1) frequency of negative thoughts would significantly predict both guilt and shame, (2) social acceptability of negative thoughts would significantly predict both shame and guilt, and (3) depression score would be significantly predicted by negative thoughts, guilt and shame.

Method

Participants and Recruitment

Three-hundred and ninety-five mothers were included in the analyses. Inclusion criteria were mothers over the age of 18 years, living in the UK or Ireland and with an infant aged 2–11 months (mothers with younger infants were excluded to avoid the highest risk period for serious mental illness, including postpartum psychosis; Jones, 2014). Exclusion criteria were mothers who had experienced mental health problems at any point over the last year, or mothers with a premature baby or a baby with a disability/developmental delay. Exclusion criteria were established via participants' self-identification and disclosure at the start of the online survey. Any participant who identified as a mother was eligible to participate. We did not ask or place any restriction on whether, for example, the mother was foster/adoptive.

Participants were aged between 20 and 48 years old, with a mean age of 32.7 (*SD* = 4.1) years. Infants' mean age was 5.9 (*SD* = 2.9) months old. The majority of participants (97.2%) were either married or cohabiting. The most commonly reported ethnic background was White British (86.4%), with another 1.7% identifying as White Irish and 7.2% selecting "Any other White Background". Ethnic minority groups accounted for 4.7% of the sample. Participants came from across the British Isles, with the most common location being the Midlands (22.6%), followed by the South East (21.0%) and London (20.7%). The majority (66%) were first time mothers; a further 28.7% had given birth two times. The mean self-reported subjective SES of the participants was 6.4 (*SD* = 1.4), based on a 10-point scale where higher scores represent higher perceived SES (Adler et al., 2000).

The majority of participants were recruited via the National Childbirth Trust (NCT), which featured the research on their social media pages. The NCT is a British charity for new parents which provides practical and emotional support through antenatal and postnatal courses, local networks and online resources. Additionally, adverts for the study (with a link to the questionnaire) were posted to online groups, including Mumsnet, Netmums and Facebook. No incentive was offered for taking part in the survey. Data collection took place between April and June 2016. A total of 490 mothers were recruited and started the questionnaire, however 81 did not complete the survey so were excluded, leaving 409 participants. A further 14 were excluded as outliers

with scores indicating likely depression (see Data Analyses) leaving 395 participants to be included in the main analyses. Ethical permission was granted by the Psychology Research Ethics Committee of the University of Westminster.

Procedure

Mothers interested in taking part in the study followed a link to the questionnaire webpage which was constructed using Qualtrics software (all participants responded online). First, prospective participants saw the information sheet which described the study, specified the exclusion criteria and forewarned participants that the questionnaire included a focus on some of the harder parts of being a mother, including negative thoughts and feelings. No mention of guilt, shame or social acceptability was made so as not to prime the participants. After reading the information and exclusion criteria, participants were then asked to give informed consent to take part in the study before being directed to the questionnaire. Following completion of the questionnaire, all participants were presented with a written debrief. The anonymous nature of the study meant it was not possible to give personalised feedback, however those who were finding their negative thoughts or feelings were interfering with their daily life were advised to contact professional, free support organisations and contact details were provided.

Design and Materials

An online, cross-sectional survey design was used. Measures administered included

Postnatal Negative Thoughts Questionnaire

The Postnatal Negative Thoughts Questionnaire (PNTQ) is a 17-item self-report questionnaire measuring the frequency and appraisal of postnatal negative thoughts (Hall & Papageorgiou, 2005). The scale consists of two factors: Baby-Related Motherhood Negative Thoughts (BRM-NT; 8-items) e.g. “I am a bad mother” and Appraisal of Cognitions, Emotion and Situation (ACES; 9-items) e.g. “It’s not normal to think the way I do”. Responses are on a 4-point scale ranging from 0 (*Not at all*) to 3 (*Almost always*). Participants’ scores were summed to give a total scale score with a possible range of 0–51. Instructions for the validated PNTQ state that the thoughts listed have been expressed by other women following the birth of a baby. In this study, it was also stated in the instructions to participants that it is common for new mothers to experience some negative thoughts about motherhood. Cronbach’s alpha for this sample was 0.86.

Social Acceptability of Negative Thoughts

Perception of the social acceptability of negative thoughts was measured by establishing how easily participants would find it to share specified negative thoughts. Participants were presented with the eight BRM-

NT items of the PNTQ (e.g. "I am a bad mother") and were instructed to "imagine experiencing each thought and then indicate how easy you would generally find it to share this thought with someone else". Items from the ACES factor were omitted from this component because they already examined appraisal. Responses were on a 5-point scale ranging from 1 (*Extremely difficult*) to 5 (*Extremely easy*), with higher scores indicating greater ease of sharing, suggesting greater social acceptability. All participants were asked to imagine sharing the thought even if they had not experienced it themselves. Participants' scores were summed to give a total ranging from 0–40. Cronbach's alpha for this study was 0.85.

Guilt and Shame

Guilt and shame proneness were measured using the Harder Personal Feelings Questionnaire (PFQ-2) which is a 22-item adjective-based scale comprising a 10-item scale measuring shame (e.g. "Feeling ridiculous" or "Feeling humiliated"), a 6-item scale measuring guilt (e.g. "Regret" or "Mild guilt"), and six unscored "filler" items (Harder & Zalma, 1990). The PFQ-2 has been found to have satisfactory reliability (Harder & Zalma, 1990). An adjective-based measure was selected due to the apparent lack of a scenario-based measure suitable for the postnatal period. Participants were asked to state how commonly they had experienced the listed feelings since giving birth, with responses ranging from 0 (*Never*) to 4 (*Continuously or almost continuously*). Total scores were computed for each of the two subscales. Cronbach's alpha for this sample was 0.79 for the shame scale and 0.78 for the guilt scale.

Depression

Depression symptoms were measured using the 7-item depression sub-scale from the short version of the Depression Anxiety Stress Scales (DASS-21; Lovibond & Lovibond, 1995). Respondents were asked how often statements had applied to them over the past week. Example statements included "I felt I had nothing to look forward to" and "I felt down-hearted and blue". Responses ranged from 0 (*Did not apply to me at all*) to 3 (*Applied to me very much or most of the time*). Participants' scores were summed and then doubled, as recommended by the DASS-21 scoring guidelines, giving a total score ranging from 0–42 with higher numbers indicating greater severity. This scale was chosen because it specifically takes a dimensional rather than a categorical or "cut-off" approach to depression and is therefore appropriate for use with a non-clinical population. Cronbach's alpha for this sample was 0.69.

Additional Questions

Demographic data including participant's age, ethnic background and geographical location, as well as age and sex of infant were collected. The following variables were used as control variables:

Social Support. Participants completed the Multidimensional Scale of Perceived Social Support (MSPSS; Zimet et al., 1988) which is a 12-item self-report scale consisting of three sub-scales measuring perceived support from a significant other (e.g. "There is a special person who is around when I am in need"), family (e.g. "My family really tries to help me") and friends (e.g. "I can count on my friends when things go wrong"). Responses are scored on a 7-point scale ranging from 1 (*Very strongly disagree*) to 7 (*Very strongly agree*). Mean scores were computed, ranging from 1 to 7 with higher scores indicating higher perceived support. Cronbach's alpha for this sample was 0.94.

Subjective SES. Subjective SES was measured using the MacArthur Scale of Subjective Social Status (Adler et al., 2000), which measures participants' subjective perceptions of their social status in relation to others in their country. Participants were asked to place themselves on a 10-rung ladder where the top of the ladder (scored as 10) represents people who "are the best off – who have the most money, the most education and the most respected jobs" (Alder et al., 2000). A subjective measure was used in preference to income range as it was felt that participants' perceptions of their own SES were most relevant to their emotional experience.

Parity. Participants were asked how many times they had given birth (parity), because motherhood experience is known to vary between mothers of first children and mothers with more than one child (Coates et al., 2014; Rotkirch & Janhunen, 2009).

Feeding Satisfaction. Feeding satisfaction was measured by a single-item question which asked "How satisfied have you been with your experience of feeding your baby?" Answers ranged from 1 (*Extremely dissatisfied*) to 5 (*Extremely satisfied*).

Experience Relative to Expectations. Participants were also asked to rate how their experience of motherhood had compared with their expectations before their most recent birth. Responses ranged from 1 (*My experience is a lot worse than my expectations*) to 5 (*My experience is a lot better than my expectations*).

Data Analyses

Where one or two items were missing in participants' responses to a scale (n = 34), these items were replaced by the mean score for the participants' responses to the other items. All participants completed the depression scale from the DASS-21 (Lovibond & Lovibond, 1995) and scores were inspected for outliers using a box plot in SPSS. Fourteen outliers were identified with depression scores between 16 and 42 and they were then removed from the main analyses as their scores indicated a higher likelihood of depression. The highest remaining depression score was 14 which falls within the non-clinical range for the UK population (Henry & Crawford, 2005). Outliers did not differ significantly from remaining participants in age, infant's age or

subjective SES, though they did have significantly lower social support. A total of 395 "non-clinical" participants remained and were included in the main analyses. Any further differences in participant numbers in the multiple regression models arise from missing data in single item measures.

Descriptive statistics were used to assess the prevalence of negative thoughts and their social acceptability. In the frequency analyses of the social acceptability scale, the categories "Extremely difficult" and "Somewhat difficult" were collapsed into a single variable representing the percentage of participants who rated the thought as generally "difficult" to share. These collapsed variables were only used for frequency analyses and not for the regression analyses where the full range of responses was used.

Correlations were used to examine the relationships between the study variables before they were then entered into multiple regression models. Three hierarchical regression analyses were carried out with shame proneness, guilt proneness and depression score as the criterion variables. The main predictor variables of interest were frequency of negative thoughts (Freq NT) and perceived social acceptability of negative thoughts. SES and social support were entered as control variables in the first step of the regressions as they are known risk factors for postnatal distress (O'Hara and Segre, 2014). Parity was also entered at this stage of the analysis as mothers' emotional experience is known to vary from first to second child (Coates et al., 2014; Rotkirch & Janhunen, 2009). In the second step, two variables representing specific motherhood-related cognitions known to relate to postnatal distress were entered: feeding satisfaction (Dias & Figueiredo, 2015; Lakshman et al., 2009; Thomson et al., 2014) and experience relative to expectations (Harwood et al., 2007; Henshaw et al., 2014). Freq NT was entered as a third step and social acceptability was entered as a fourth. For the regression analysis using depression as the criterion variable, the first four steps were the same with shame and guilt proneness being entered in a fifth step.

Linearity, multicollinearity and homoscedasticity were all checked prior to carrying out these analyses and were found to be acceptable for all three models. Freq NT, guilt, shame and depression were positively skewed (as is expected in a non-clinical population) but when the regression analyses were conducted the residuals were normally distributed so no transformations were applied (Tabachnick & Fidell, 2001).

Results

Prevalence of Negative Thoughts and Their Social Acceptability

The most frequently reported negative thought was "It's impossible to explain how I feel" (64.3%), followed by "I am a bad mother" (63.0%). The least socially acceptable thought was "I shouldn't have

considered having a baby" which had a mean social acceptability score of 1.8 (*SD* = 1.0), where a rating of 1 represents the thought being "Extremely difficult" to share and 5 represents it being "Extremely easy" to share. A total of 80.0% of mothers rated this thought as "difficult" to share (a rating of 1 or 2). The thought with the highest social acceptability was "Being with my baby is boring", which had a mean social acceptability score of 3.2 (*SD* = 1.2) and which 35.9% of the sample endorsed as difficult to share. Table 1 shows the total prevalence of the negative thoughts included in the PNTQ as well as the mean (*SD*) social acceptability of the items from the BRM-NT factor of the PNTQ and the percentage of participants rating these items as "difficult" to share.

Table 1 near here.

Descriptive Statistics and Correlations

Descriptive statistics and correlation coefficients for the main study variables are presented in Table 2. Shame and guilt proneness were significantly positively related to each other with a large effect size. Total Freq NT was also positively related to both shame and guilt with medium to large effect sizes. Participants who frequently experienced negative thoughts were also more prone to feelings of shame and guilt. Freq NT was significantly negatively related to perceived social acceptability, such that those who experienced more negative thoughts were likely to report lower social acceptability ratings. Social acceptability was also significantly negatively related to both shame and guilt, meaning lower perceived social acceptability of negative thoughts was related to increased proneness to shame and guilt, though both effect sizes were weak.

Freq NT was significantly positively related to depression, as were shame and guilt proneness, all with medium effect sizes. Social acceptability was significantly negatively related such that those who perceived the negative thoughts to be less socially acceptable had higher depression scores, though the effect size was small. In addition, there was a statistically significant negative relationship between shame and feeding satisfaction and between guilt and feeding satisfaction with participants who were less satisfied with their feeding experience reporting higher levels of guilt and shame, though the effect size was small.

Table 2 near here

Predicting Shame and Guilt

Two four-stage hierarchical multiple regressions were conducted using the same predictor variables, the first with shame proneness as the criterion variable and the second with guilt proneness as the criterion variable. Tables 3 and 4 provide information about the regression coefficients for the predictor variables entered into these models.

For shame proneness, the regression revealed that the control variables (SES, parity and social support) predicted a significant 3.3% of the variance in Shame, $R^2_{change} = .033$, $F_{change}(3,380) = 4.362$, $p = 0.005$. After control variables were accounted for, feeding satisfaction and experience relative to expectations predicted a significant 4.8% of the variance, $R^2_{change} = .048$, $F_{change}(2,378) = 9.959$, $p < 0.001$. Freq NT significantly predicted a further 15.5%, $R^2_{change} = .155$, $F_{change}(1,377) = 76.830$, $p < 0.001$. In the final step, social acceptability did not significantly contribute to the variance of shame proneness, $R^2_{change} = 0.001$, $F_{change}(1,376) = .471$, $p = .493$. The final model was significant, $F(7,376) = 16.786$, $p < 0.001$, and explained 22.4% of the variance (Adjusted $R^2 = .224$). Freq NT and feeding satisfaction were significant predictors of shame proneness. Freq NT was positively related to shame and feeding satisfaction was negatively related.

Table 3 near here.

With guilt proneness as the criterion variable, the control variables did not make a significant contribution, $R^2_{change} = .017$, $F_{change}(3,380) = 2.238$, $p = .083$. After they were accounted for, feeding satisfaction and experience relative to expectations contributed a significant 5.7% to the variance of guilt, $R^2_{change} = .057$, $F_{change}(2,378) = 11.693$, $p < 0.001$. Freq NT significantly predicted an additional 27.2% of the variance, $R^2_{change} = 0.272$, $F_{change}(1,377) = 157.327$, $p < 0.001$. Subsequently, social acceptability significantly predicted 0.8% of the variance, $R^2_{change} = 0.008$, $F_{change}(1,376) = 4.440$, $p = 0.036$. The model was again significant, $F(7,376) = 29.526$, $p < 0.001$, and explained 34.3% of the variance (Adjusted $R^2 = .343$). Freq NT and social acceptability were both significant predictors in the final model, though the effect size for the latter was small. In addition, parity also significantly predicted guilt with a positive relationship between the variables such that mothers with more children reported higher guilt proneness. As frequency of negative thoughts significantly predicted both guilt and shame our first hypothesis was supported. Social acceptability of negative thoughts was a significant predictor of guilt but not shame therefore our second hypothesis was partially supported.

Table 4 near here.

Predicting Depression

The relationship between Freq NT, guilt, shame and depression score was analysed using a third hierarchical regression model. The same variables were entered in the first four steps as in the previous models, followed by shame and guilt proneness in a fifth step. In the first stage, the control variables (subjective SES, parity and social support) contributed a significant 2.5% to the variance in depression score, $R^2_{change} = 0.025$, $F_{change}(3,380) = 3.214$, $p = 0.23$. In the second stage, feeding satisfaction and experience relative to expectations explained an additional 9.9% of the variance, $R^2_{change} = 0.099$, $F_{change}(2,378) = 21.365$, $p < 0.001$. Freq NT subsequently contributed a significant 9.8%, $R^2_{change} = 0.098$, $F_{change}(1,377) = 47.580$, $p < 0.001$, but in the fourth step social acceptability did not significantly contribute, $R^2_{change} = 0.002$, $F_{change}(1,376) = 1.170$, $p = 0.280$. Then, in the final step, guilt and shame additionally explained a significant 3.4% of the variance, $R^2_{change} = 0.034$, $F_{change}(2,374) = 8.563$, $p < 0.001$. The final model was significant, $F(9,374) = 14.477$, $p < 0.001$, explaining 24.1% of the variance in DASS-21 depression score (Adjusted $R^2 = .241$). Information about the regression coefficients is shown in Table 5. Freq NT was a significant predictor with a positive relationship to depression. Shame and guilt proneness were also both significant predictors, with a positive relationship to depression and with almost equal effect sizes. Our third hypothesis was therefore supported. In addition, experience relative to expectations emerged as a significant predictor with participants who scored their experience as lower relative to their expectations reporting higher depression scores. Social acceptability of negative thoughts was not a significant predictor.

Table 5 near here.

Discussion

Hall and Wittkowski's (2006) research previously suggested that negative thoughts were common among non-depressed new mothers and that these thoughts were not qualitatively different from those experienced by depressed mothers. This study provides updated information about the frequency of these thoughts within a larger sample and, for the first time, contributes information about their social acceptability and their relationship to guilt, shame and depression score. The study therefore offers new insight into the psychological experience of early motherhood in a non-clinical population. Our findings showed that, after controlling for SES, parity and social support, frequency of negative thoughts significantly predicted both shame

and guilt proneness. Our first hypothesis was therefore supported. Social acceptability of negative thoughts was a predictor of guilt but not shame so our second hypothesis was partially supported. In addition, after controlling for demographic variables and social support, our results showed that frequency of negative thoughts, guilt and shame were all statistically significant predictors of depression score even in this non-clinical population, therefore our third hypothesis was supported.

The frequency of negative thoughts (measured with the PNTQ) was much higher in this sample than was previously reported by Hall and Wittkowski (2006). This greater prevalence may reflect an increase in the frequency of new mothers' negative thoughts, however it may also be indicative of an increased willingness to share them. The instructions preceding the validated PNTQ used in this study described the items as thoughts "expressed by women following the birth of a baby", whereas Hall and Wittkowski's (2006) initial study described them as thoughts expressed by "women who have suffered from postnatal depression". In addition, the information provided to participants in the current study stated that it is common for new mothers to have some negative thoughts about motherhood. These differences in wording may have contributed to participants' willingness to report their thoughts. Furthermore, whereas the two samples are similar in demographics, over a decade has passed between data collections. The higher prevalence in this new study may also reflect greater awareness and discussion of negative thoughts in recent years. For example, many online platforms now exist where new parents can seek information and share experiences about all aspects of motherhood experience, both positive and negative. Mental health knowledge has also begun to increase and stigma has reduced in the years since Hall and Wittkowski's (2006) data collection (Henderson et al., 2020).

The most common negative thought ("It's impossible to explain how I feel") is unique among the PNTQ items in that it could be reported by mothers who are experiencing positive emotions (e.g. euphoria) as well as negative ones. However, the second most prevalent thought ("I am a bad mother") is unquestionably negative and was reported by 63% of participants in this study, compared to 17% in Hall and Wittkowski (2006). Qualitative literature has already suggested that new mothers often compare themselves with ideals of "good" or "bad" (Choi et al., 2005; Kauppi et al., 2012; Rotkirch & Janhunen, 2009) and the findings of this current study provide an updated quantitative measure of how frequently mothers make these kinds of comparisons. It is feasible, as is often anecdotally reported by new mothers, that the emergence of social media has magnified a sense of comparison and negative judgement of self against others (Padoa et al., 2018).

Our study found that new mothers who experienced negative thoughts more frequently also reported greater proneness to guilt and shame. Our research therefore supports Hall and Wittkowski's (2006) conjecture

that experiencing motherhood-related negative thoughts at a time of supposed happiness is related to feelings of guilt and unacceptability. It also tallies with previous research which has suggested women in Western cultures feel inadequate when their experience does not match up to ideologies of early motherhood as natural, joyful and fulfilling (Choi et al., 2005; Kauppi et al., 2012; Rotkirch & Janhunen, 2009). Given the societal pressure to be a "good" mother, it is important to consider not just whether the act of having negative thoughts about motherhood is related to guilt and shame but also whether a sense of how others might judge these thoughts plays a part. Overall, it appears that the mothers in this sample considered sharing negative thoughts with someone else to be difficult, which suggests experiencing these thoughts is perceived as socially unacceptable. For the majority of the items in the social acceptability measure (seven out of eight), over half of the participants rated the thought as "extremely" or "somewhat" difficult to share. We also found that those who experienced negative thoughts more frequently rated them as more difficult to share with others. One interpretation, which future research may wish to explore, is that mothers consider experiencing a low number of negative thoughts to be "acceptable" but the more negative thoughts they register, the more they believe they are breaking with social norms or experiencing something "unacceptable" that cannot be disclosed.

Our results showed that as the social acceptability of negative thoughts dropped, guilt and shame proneness rose. However, social acceptability of negative thoughts only emerged as a significant predictor of guilt and not shame. This finding is both contrary to our hypothesis and counterintuitive, as social acceptability relates to being judged by other people and is therefore conceptually close to shame (Kim et al., 2011; Tangney et al., 2007). One explanation is that participants may have internalised social expectations of early motherhood such that when they judge negative thoughts to be socially unacceptable they also judge experiencing such thoughts to be a personal behavioural failing, triggering guilt (Seagram & Daniluk, 2002; Wardrop & Popadiuk, 2013). In support of this explanation, Liss et al.'s (2013) work on self-discrepancy theory found that when women believed there was a discrepancy between their internalised motherhood ideals and their own mothering style, they experienced higher guilt as well as shame. Alternatively, it may be that our results here are due to limitations in the measures of guilt and shame that were used. Adjectival measures like the PFQ-2 do not always distinguish sufficiently between the two emotions (Kim et al., 2011; Tangney et al., 2007) and the high correlation between guilt and shame in our study suggests that may be the case here. Future research would benefit from the development of measures of guilt and shame for a postnatal population that have greater discriminant validity.

The third regression analysis in this study sought to explore the relationships between negative thoughts, guilt, shame and psychological distress. The results indicated that the strongest predictor of depression score was the frequency of mothers' negative thoughts. This finding is in line with the cognitive model which suggests that recurrent negative thoughts, especially about the self (as is the case for many of the PNTQ items), play a role in depressed mood (Gotlib & Joorman, 2010). What is more, the differences between the negative thoughts of non-clinical and clinical populations have been shown to be differences of degree rather than of substance (e.g. Clark & Rhyno, 2005). The thoughts listed in the PNTQ were initially expressed by women experiencing postnatal depression, so when mothers in this non-clinical sample report the same negative thoughts it further supports the idea that postnatal distress forms a continuum rather than a dichotomy (Green, 1998; Hall & Wittkowski, 2006; Martin & Redshaw, 2013).

Depression score was also predicted by mothers' rating of their experience of motherhood relative to their expectations. Those who rated their experience as lower in comparison to their expectations reported higher depression scores. This result confirms previous research which has suggested a mismatch between expectations and reality can contribute to postnatal distress (Harwood et al., 2007; Henshaw et al., 2014; Kauppi et al., 2012; Wardrop & Popadiuk, 2013). In addition, guilt and shame were similarly important in predicting depression score. Whilst the association between shame and depression symptoms has previously been established, the relationship between guilt and depression is more complex (Dunford & Granger, 2017; Kim et al., 2011). It may be that our results arise from low discriminant validity (Tangney et al., 2007) or it could be that some of the guilt the mothers in this study reported is contextual-maladaptive or generalised guilt which appear to correlate as strongly with depression as shame does (Kim et al., 2011). Future research could clarify these interpretations. The relationship between guilt and depression found here should be treated cautiously, however the associations between negative thoughts, guilt, shame and depression score, even within this non-clinical population, suggest these factors are worth investigating as a means of further understanding postnatal distress.

Finally, our results highlighted two other aspects of early motherhood experience which future research may wish to expand upon. Our study found that parity was a statistically significant predictor of guilt proneness, with mothers of more children reporting greater proneness to guilt (though the effect size was small). It is possible that this finding emerges from the challenges of caring for a newborn infant at the same time as older children. A browse through online forums used by mothers turns up discussions of "second child guilt", with women expressing emotional concerns about looking after multiple children (e.g. Mumsnet, 2014; Netmums,

n.d.). Alternatively, parents of multiple children may report more "adaptive" guilt responses—which have been linked to constructive behaviour (Kim et al., 2011; Tangney et al., 2007)—perhaps as a result of greater experience and confidence. In addition, our findings showed that mothers who rated satisfaction with their feeding experience as lower were more prone to shame. Qualitative research has previously suggested there are multiple reasons for women feeling they have "failed" in their feeding experiences, for example if they bottle-feed rather than breastfeed or if they find breastfeeding hard (Lakshman et al., 2009; Thomson et al., 2014). The role of feeding experience in the transition to motherhood is highly topical and worthy of further investigation so that health professionals supporting new mothers have greater access to evidence-based information.

Limitations

The findings from this study must be considered within the context of its limitations. Firstly, the sample—whilst comparatively large—was ethnically homogenous and the majority of participants were married, thus findings may not generalise to all women. Studies with more diverse populations are needed. Secondly, there are many variables that may have an important role to play in this study area and it was beyond the scope of this investigation to include them all. Future research may wish to examine additional factors such as educational level, income range, maternal relationship to child (birth/foster/adoptive mother), previous experience of infertility, birth experience, infant behaviour (e.g. extensive crying), the extent to which women believe their peers experience negative thoughts, or levels of discomfort related to specific negative thoughts. Thirdly, the selection process means the sample is not necessarily truly non-clinical: the DASS-21 depression scale is not a diagnostic tool (Lovibond & Lovibond, 1995) and participants were not directly screened for other psychological distress or mental illness. Finally, the cross-sectional nature of this study means no conclusions can be drawn about causality. A longitudinal study would enable greater understanding of the development of negative thoughts and their relationship to difficult emotions, as well as how initial experiences of motherhood might shape thoughts and feelings across subsequent months.

Some of the significant results should be treated with caution. Both feeding satisfaction and experience relative to expectations were assessed by using single item measures which may have less validity than multi-item scales, and the measure of social acceptability of negative thoughts was not piloted in advance for validity. Cronbach's alpha for the DASS-21 depression scale was also low (0.69), possibly because only those scoring 14 or below (out of a total of 42) were included in the analysis. In addition, as previously discussed, there is potentially insufficient discrimination between guilt and shame which may confuse their relationships with other variables, including social acceptability and depression. Scenario-based measures, such as the Test of Self-

Conscious Affect (TOSCA-3; Tangney et al., 2000), are available for the general adult population and are known to have better discriminant validity than adjectival ones (Tangney et al., 2007). Researchers could seek to modify and validate the TOSCA-3 to provide a measure of shame and guilt in a postnatal context.

Clinical and Policy Implications

The current findings offer a number of potentially significant clinical and policy implications. This study found that new mothers who do not meet the diagnostic criteria for depression may, nevertheless, experience distress in relation to their thoughts. Health professionals are already ambivalent about a categorical approach to postnatal distress but are unsure how to help women who are not given a diagnosis (Chew-Graham et al., 2008; Coates et al., 2015). Given that negative thoughts are frequent in early motherhood, and women appear reluctant to share them, the development of policies and practice that support the safe "normalisation" of such thoughts is recommended. It is important that such a process does not result in the trivialisation of psychological distress, or in overlooking the symptoms of depression. Nevertheless, future research could evaluate the impact of advising women that a substantial proportion of mothers experience negative thoughts after birth. Antenatally, this information could be disseminated through organisations such as the National Health Service and NCT in the UK, or the Centre of Perinatal Excellence and Beyond Blue in Australia. Postnatally, it could come via professionals working in a counselling or educative relationship with new mothers. In addition, routine postnatal care could be improved by training relevant healthcare professionals (e.g. general practice doctors, midwives, health visitors/child and family health nurses) about common negative thoughts and emotions. New parents could then be offered appropriate and potentially reassuring psychoeducation as part of standard care, with the aim of reducing the relationships between negative thoughts, guilt and shame.

This study involved a self-selected non-clinical sample, however it is possible that a normalisation process may have implications for the understanding—and even prevention—of postnatal depression in a wider population. Given that shame and maladaptive forms of guilt are linked to depression, it is possible that reducing the connection between negative thoughts, guilt and shame in new mothers may help to reduce the prevalence of depression (Kim et al., 2011). The value of prevention and early intervention in perinatal mental health is widely recognised (National Collaborating Centre for Mental Health, 2018) and the normalisation of negative thoughts may provide one cost effective way of approaching this. It is recommended that future research could extend this study by including women with greater depressive symptomology, thereby providing findings relevant to a clinical population.

In conclusion, this research adds to an understanding of the psychology of new motherhood in a non-clinical population. It suggests that the prevalence of negative thoughts in new mothers may be higher than previously recognised and that there is a relationship between experiencing such thoughts and proneness to guilt and shame. It appears that women struggle with the idea of disclosing their negative thoughts and that the social acceptability of these thoughts may play a role in feelings of guilt. The theoretical links between shame, guilt and depression make this a valuable area for further study. Future research and clinical recommendations include investigating ways to break the relationships between negative thoughts, shame, guilt and depression, including by providing information and reassurance to expectant and new mothers about the kind of negative thoughts that are commonly experienced in the postnatal period.

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Table 1

Frequency, Prevalence and Social Acceptability of Negative Thoughts in a Non-Clinical Sample of New Mothers

Item from PNTQ	Frequency				Social Accept [a]		Previous Total [b]	Sample Total [c]
	Not at all	Occasionally	Frequently	Almost Always				
	n (%)	n (%)	n (%)	n (%)	*M (SD)*	% [d]	%	%
It's impossible to explain how I feel [e]	141 (35.7)	211 (53.4)	40 (10.1)	3 (0.8)	–	–	41.4	64.3
I am a bad mother [f]	146 (37.0)	217 (54.9)	30 (7.6)	2 (0.5)	2.7 (1.2)	50.9	17.2	63.0
Being with my baby is boring [f]	162 (41.0)	212 (53.7)	21 (5.3)	–	3.2 (1.2)	35.9	32.3	59.0
I could cause emotional damage to my child [f]	217 (54.9)	147 (37.2)	29 (7.3)	2 (0.5)	2.3 (1.1)	64.1	13.3	45.0
There must be something wrong with me [e]	240 (60.9)	138 (35.0)	12 (3.0)	4 (1.0)	–	–	16.5	39.0
I'm trapped in this situation with my baby [f]	246 (62.3)	132 (33.4)	17 (4.3)	–	2.5 (1.1)	56.7	37.6 [g]	37.7
I don't want to be alone with my baby [f]	249 (63.0)	129 (32.7)	17 (4.3)	–	2.7 (1.2)	56.9	14.0	37.0
If I share my thoughts with others, they will think I'm mad [e]	251 (63.5)	124 (31.4)	15 (3.8)	5 (1.3)	–	–	22.2	36.5
It's not normal to think the way I do [e]	253 (64.1)	113 (28.6)	22 (5.6)	7 (1.8)	–	–	19.7	36
Things will never get better [e]	286 (72.4)	93 (23.5)	15 (3.8)	1 (0.3)	–	–	14.6	27.6
I can't look after my baby [f]	289 (73.2)	101 (25.6)	4 (1.0)	1 (0.3)	2.1 (1.1)	75.7	8.9	26.9
My situation is completely out of control [e]	304 (77.0)	84 (21.3)	6 (1.5)	1 (0.3)	–	–	5.1	23.1
I am rejected by my baby [f]	314 (79.5)	79 (20.0)	2 (0.5)	–	2.6 (1.2)	55.2	5.1	20.5
I shouldn't have considered having a baby [f]	317 (80.3)	71 (18.0)	7 (1.8)	–	1.8 (1.0)	80.0	4.5	19.8
My negative thoughts are uncontrollable [e]	327 (82.8)	61 (15.4)	6 (1.5)	1 (0.3)	–	–	10.1	17.2
Having bad thoughts about my baby means I'm evil [e]	346 (87.6)	43 (10.9)	4 (1.0)	2 (0.5)	–	–	5.8	12.4
If I told people about my thoughts and feelings there would be terrible consequences [e]	354 (89.6)	36 (9.1)	5 (1.3)	–	–	–	4.4	10.4

Note. N = 395. PNTQ, Postnatal Negative Thoughts Questionnaire. Items ordered by total frequency.

[a] Social Accept, social acceptability (only measured for BRM-NT factor of the PNTQ). [b] Total prevalence in Hall and Wittkowski's (2006) sample. [c] Total prevalence in current sample. [d] Percentage reporting thought as "difficult" to share. [e] ACES factor of the PNTQ. [f] BRM-NT factor of the PNTQ. [g] Worded as "I'm trapped" in Hall and Wittkowski (2006).

Table 2

Descriptive Statistics and Correlations for Study Variables

Variable	*M* (*SD*)	1	2	3	4	5	6	7	8	9	10
1. Freq NT	6.5 (5.1) [a]	–	-.217***	.465***	.587***	.428***	-.101*	-.238***	-.380***	-.125*	-.108*
2. Social Accept	19.9 (6.4) [a]		–	-.148**	-.210***	-.136**	-.001	.137**	.042	.094	.060
3. Shame	10 (5.4) [a]			–	.639***	.348***	-.128*	-.200***	-.164***	-.033	-.135**
4. Guilt	5.5 (3.6) [a]				–	.389***	-.101*	-.191***	-.197***	.015	-.101*
5. Depression	3.7 (3.8) [a]					–	-.136**	-.189***	-.315***	.012	-.107*
6. Social Support	5.7 (1.1) [a]						–	.049	.026	-.043	.102*
7. Feeding Sat	4.1 (1.2) [a]							–	.342***	.195***	-.008
8. Experience	3.8 (1.2) [b]								–	.135**	.018
9. Parity	1.4 (0.7) [b]									–	-.054
10. SES	6.4 (1.4) [c]										–

Note. Freq NT, frequency of negative thoughts; Social Accept, social acceptability of negative thoughts; Shame, shame proneness; Guilt, guilt proneness; Depression, depression score; Social Support, perceived social support; Feeding Sat, feeding satisfaction; Experience, experience relative to expectations; Parity, number of times given birth; SES, subjective socioeconomic status.

[a] $n = 395$; [b] $n = 394$; [c] $n = 386$.

*$p < .05$. **$p < .01$. ***$p \leq .001$.

Table 3

Hierarchical Regression Results for Shame Proneness

Variable	*B*	95% CI for *B*		*SE B*	ß	R^2	ΔR^2
		LL	*UL*				
Step 1						.033	.033**
SES	-.479	-.869	-.090	.198	-.123*		
Social Support	-.561	-1.036	-.086	.241	-.118*		
Parity	-.378	-1.153	.378	.389	-.050		
Step 2						.082	.048***
SES	-.474	-.855	-.094	.194	-.122*		
Social Support	-.504	-.969	-.039	.236	-.106*		
Parity	-.023	-.789	.742	.389	-.003		
Feeding Sat	-.663	-1.120	-.206	.233	-.151**		
Experience	-.556	-1.023	-.090	.237	.123*		
Step 3						.237	.155***
SES	-.309	-.658	.040	.178	-.079		
Social Support	-.335	-.761	.091	.217	-.070		
Parity	.235	-.466	.936	.356	.030		
Feeding Sat	-.478	-.897	-.058	.213	-.109*		
Experience	.102	-.349	.553	.229	.023		
Freq NT	.453	.352	.555	.052	.435***		
Step 4						.238	.001
SES	-.303	-.653	.047	.178	-.078		
Social Support	-.340	-.766	.087	.217	-.071		
Parity	.248	-.454	.951	.357	.032		
Feeding Sat	-.465	-.887	-.044	.214	-.106*		
Experience	.092	-.360	.544	.230	.020		
Freq NT	.446	.342	.550	.053	.428***		
Social Accept	-.027	-.104	.050	.039	-.032		

Note. $n = 384$. CI = confidence interval; *LL* = lower limit; *UL* = upper limit; SES, subjective socioeconomic status; Social Support, perceived social support; Parity, number of times given birth; Feeding Sat, feeding satisfaction; Experience, experience relative to expectations; Freq NT, frequency of negative thoughts; Social Accept, social acceptability of negative thoughts.

*p < .05. **p < .01. ***p < .001.

Table 4

Hierarchical Regression Results for Guilt Proneness

Variable	*B*	95% CI for *B*		*SE B*	ß	R^2	ΔR^2
		LL	*UL*				
Step 1						.017	.017
SES	-.231	-.497	.035	.135	-.087		
Social Support	-.292	-.616	.033	.165	-.090		
Parity	-.004	-.527	.519	.266	-.001		
Step 2						.075	.057***
SES	-.225	-.484	.034	.132	-.085		
Social Support	-.253	-.569	.063	.161	-.078		
Parity	.257	-.264	.778	.265	.049		
Feeding Sat	-.406	-.718	-.095	.158	-.137*		
Experience	-.495	-.812	-.177	.162	-.162**		
Step 3						.347	.272***
SES	-.077	-.296	.143	.111	-.029		
Social Support	-.101	-.368	.166	.136	-.031		
Parity	.489	.049	.928	.224	.094*		
Feeding Sat	-.240	-.503	.023	.134	-.081		
Experience	.096	-.187	.379	.144	.031		
Freq NT	.407	.343	.471	.032	.576***		
Step 4						.355	.008*
SES	-.065	-.283	.154	.111	-.024		
Social Support	-.111	-.377	.155	.135	-.034		
Parity	.515	.076	.953	.223	.099*		
Feeding Sat	-.217	-.480	.046	.134	-.073		
Experience	.077	-.205	.359	.143	.025		
Freq NT	.393	.328	.458	.033	.556***		
Social Accept	-.052	-.100	-.003	.025	-.090*		

Note. n = 384. CI = confidence interval; *LL* = lower limit; *UL* = upper limit; SES, subjective socioeconomic status; Social Support, perceived social support; Parity, number of times given birth; Feeding Sat, feeding satisfaction; Experience, experience relative to expectations; Freq NT, frequency of negative thoughts; Social Accept, social acceptability of negative thoughts.

*p < .05. **p < .01. ***p < .001.

Table 5

Hierarchical Regression Results for Depression

Variable	*B*	95% CI for *B*		*SE B*	ß	R^2	ΔR^2
		LL	*UL*				
Step 1						.025	.025*
SES	-.252	-.529	.026	.141	-.091		
Social Support	-.403	-.741	-.064	.172	-.119*		
Parity	.011	-.534	.556	.277	.002		
Step 2						.124	.099***
SES	-.238	-.502	.026	.134	-.086		
Social Support	-.363	-.685	-.041	.164	-.108*		
Parity	.323	-.207	.853	.270	.059		
Feeding Sat	-.264	-.581	.052	.161	-.085		
Experience	-.899	-1.222	-.576	.164	-.281***		
Step 3						.222	.098***
SES	-.145	-.395	.105	.127	-.052		
Social Support	-.268	-.573	.037	.155	-.079		
Parity	.468	-.034	.970	.255	.086		
Feeding Sat	-.160	-.460	.141	.153	-.051		
Experience	-.528	-.851	-.206	.164	-.165***		
Freq NT	.255	.183	.328	.037	.346***		
Step 4						.224	.002
SES	-.138	-.388	.113	.127	-.050		
Social Support	-.273	-.578	.032	.155	-.081		
Parity	.484	-.019	.986	.256	.089		
Feeding Sat	-.146	-.448	.155	.153	-.047		
Experience	-.540	-.863	-.216	.164	-.169***		
Freq NT	.247	.173	.322	.038	.335***		
Social Accept	-.030	-.086	.025	.028	-.051		
Step 5						.258	.034***
SES	-.103	-.349	.144	.125	-.037		
Social Support	-.229	-.529	.072	.153	-.068		
Parity	.391	-.105	.888	.252	.072		
Feeding Sat	-.076	-.373	.222	.151	-.024		
Experience	-.558	-.875	-.241	.161	-.174***		
Freq NT	.154	.068	.240	.044	.209***		
Social Accept	-.021	-.075	.034	.028	-.035		
Shame	.087	.005	.169	.042	.123*		
Guilt	.138	.007	.269	.067	.132*		

Note. $n = 384$. CI = confidence interval; *LL* = lower limit; *UL* = upper limit; SES, subjective socioeconomic status; Social Support, perceived social support; Parity, number of times given birth; Feeding Sat, feeding satisfaction; Experience, experience relative to expectations; Freq NT, frequency of negative thoughts; Social Accept, social acceptability of negative thoughts.

*p < .05. **$p < .01$. ***$p \leq .001$.