Research Article

ARE WOMEN'S PARENTING-SPECIFIC BELIEFS ASSOCIATED WITH DEPRESSIVE SYMPTOMS IN THE PERINATAL PERIOD? DEVELOPMENT OF THE RIGIDITY OF MATERNAL BELIEFS SCALE

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Background: *Perinatal depression negatively impacts women, parenting, and children's development. However, not much is known about maternal specific beliefs that may be associated with perinatal depression. We created a new measure that examined the rigidity of perinatal women's beliefs in three major domains suggested to be closely related to mood and behavior: anticipated maternal self-efficacy, perceptions of child vulnerability, and perceptions of societal expectations of mothers (PSEM).* **Methods:** *A 26-item measure (the Rigidity of Maternal Beliefs Scale, RMBS) was developed and completed by women at two time points, pregnancy (n = 134) and postpartum (n = 113), along with the Edinburgh Postnatal Depression Scale. Exploratory factor analysis (EFA) examined the factor structure of the RMBS and validity and reliability were also tested.* **Results:** *The EFA suggested that a four-factor solution was most interpretable, with few items cross-loading, and there were common themes that unified the items in each factor, resulting in a 24-item final measure. Cronbach's alpha confirmed the internal consistency, whereas bivariate correlations revealed the measure had good test-retest reliability, discriminant validity, and convergent validity. Regression analyses established predictive validity of the RMBS for postpartum depressive symptoms.* **Conclusions:** *The RMBS may be useful with clinical populations to identify maladaptive or rigid thoughts that could be a focus of intervention. This tool may also be used to guide conversation about motherhood expectations within any context where pregnant women present (e.g., prenatal care, social services), as well as potentially identifying women who are at risk for postpartum depression in clinical contexts. Depression and Anxiety 32:141–148, 2015.* © *2014 Wiley Periodicals, Inc.*

Key words: *pregnant women; culture; depression; life change events; psychology; postpartum period*

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INTRODUCTION

A major focus of perinatal depression research centers on its adverse effects on women's health, parenting behavior, and children's development.[1–5] Although these effects are widely known, there has been little examination of cognitive factors, or maternal beliefs, that are associated with perinatal depression. These may be the filter through which parenting-related emotions are experienced and regulated and are associated with a host of parenting behaviors.[6,7] During pregnancy and postpartum, flexible beliefs, such as understanding that being a mother will not always be a positive experience, may facilitate maternal well-being during pregnancy and postpartum. More rigid beliefs, such as believing one must fix all parenting difficulties oneself, may be negatively associated with less optimal maternal mental health, such as an increase in depressive symptoms. It is important to investigate whether beliefs are associated with decreased maternal mood during the perinatal period, however, valid beliefs measures are not widely available. This paper presents a new measure that examined perinatal women's beliefs in three major domains suggested to be closely related to mood and behavior: anticipated maternal self-efficacy, perceptions of child vulnerability, and perceptions of societal expectations of mothers (PSEM). Additionally, this study explored if the rigidity of these beliefs was associated with depressive symptoms in the perinatal period.

BELIEFS ABOUT ANTICIPATED MATERNAL SELF-EFFICACY

Maternal self-efficacy is a woman's belief in her ability to be an effective or competent parent[8] and originates from self-efficacy theory that suggests that individuals make behavioral decisions based on the extent to which they believe they can carry them out successfully.[9] For example, mothers who feel insecure about the thought of soothing an infant may try less effectively or less often to soothe their own infants than mothers who feel capable of soothing their infants. Empirically, strong relations between maternal feelings of self-efficacy, children's development, and depression have been established, with low levels of maternal self-efficacy associated with maternal depression and negative child outcomes,[8,10] and high maternal self-efficacy related to improved child development, more competent and sensitive parenting, and reduced levels of maternal depression.[11–13]

A handful of studies have investigated anticipated maternal self-efficacy and mental health during the prenatal period, with mixed findings regarding the associations between depression and maternal self-efficacy.[14–16] None explored if anticipated maternal self-efficacy predicted depressive symptoms. Anticipated prenatal maternal self-efficacy has been found to predict adaptation to the transition to motherhood over the infant and toddler years,[17] as well as postpartum maternal self-efficacy,[14,15] perhaps because early beliefs may predetermine thought patterns that solidify through experience and influence maternal mood. Previous studies have used measures of self-efficacy that focus on specific tasks (e.g., feeding, bathing) and a global self-efficacy question. This study sought to explore women's beliefs about their self-efficacy and the rigidity of these beliefs in relation to other mothers, particularly if one was not able to perform expected parental duties to a standard associated with being a "good" mother. Expected or anticipated maternal self-efficacy may serve as a protective factor during and after the birth of a child for women, making it an important area of research.

BELIEFS ABOUT CHILD VULNERABILITY

Children whose mothers believe they are vulnerable or fragile are more likely to have behavioral problems, delayed cognitive and exploratory development, and utilize medical care more frequently.[18–20] Although most of the literature revolves around medically fragile or preterm infants, some research has found that maternal perceptions of child vulnerability in healthy, full-term infants is associated with maternal depressive symptoms.[19,21] Women's perceptions of child vulnerability prior to birth have not been studied, and it is unknown if beliefs about infants as fragile or sick may change after the birth of the child or if prenatal beliefs are associated with depression. Existing measures of child vulnerability focus on comparison of one's own child to other children or quantity of medical professional visits or usage, but do not measure women's general beliefs about how vulnerable children are.

BELIEFS ABOUT SOCIETAL EXPECTATIONS OF BEING A MOTHER

Societal expectations are beliefs that society holds about what "good" mothers should do, such as that mothers should always be positive and happy to be mothers or that for mothers to express any negativity about their role is not acceptable and an indication of depression.[22,24] They are formed by a variety of sources, such as the media, family interactions, and medical professionals.[23,24]

Qualitative research has found that across cultures and ethnicities, unrealistic and rigid societal expectations about motherhood permeate the media and culture and affect women's mental health.[25] Depressed women believe that as mothers they are always supposed to be and feel competent at taking care of their infants and to never need or ask for help, or even express that they are experiencing parenting difficulties.[25] Women related that the conflict between societal expectations and the reality of daily activities resulted in feelings of depression.[25] Examination of these beliefs during pregnancy may provide insight into the development of postpartum depression. It is unclear if societal expectations are formed prior to the birth of the child, or if they develop concurrently with depression during the postpartum period. Although some qualitative studies have examined societal

expectations, there have been no self-report instruments created to capture this information.

These three areas of maternal beliefs bear further investigation—if women believe themselves to be less efficacious and consider their children to be more vulnerable, the result could be a cycle of negative thoughts and less confidence in one's own competence as a parent. Similarly, women who perceive there to be high societal expectations may feel a great deal of pressure in being a mother. Typical experiences, such as a crying baby, may encourage feelings of inadequacy and low efficacy. Examining the relations of these beliefs with depressive symptoms may help clinicians and others who work with perinatal women.

The purpose of this study was to develop a new measure of maternal beliefs, the Rigidity of Maternal Beliefs Scale (RMBS), that specifically assessed women's parenting-specific beliefs, which have not been adequately addressed to date. We hypothesized that three factors would emerge from the measure: PSEM, anticipated maternal self-efficacy, and perceptions of child vulnerability. We also hypothesized that these constructs would be reliable and stable over the transition to parenthood. Finally, we hypothesized that the measure would demonstrate construct validity and predict postpartum depressive symptoms.

METHOD

An expert consensus based approach was used for initial item development, followed by empirical validation procedures. After consulting with expert researchers and clinicians in the field of women's mental health and conducting a review of the existing literature, 30 items were created to reflect the three proposed dimensions of maternal beliefs. Additional item creation and selection was informed by a review of present themes in qualitative interviews with depressed women that explored their experiences of the perinatal period and motherhood.[26] A 7-point Likert scale ranging from 1 = *strongly disagree* to 7 = *strongly agree* was used to indicate rigidity of beliefs, with high scores suggesting more rigidity, while lower scores connoted more flexibility. These items were piloted with a small group of depressed women (*n* = 39) participating in an on-going intervention study.[27] Initial analyses examined the distribution and skewness of the responses and established that ten of the items had restricted range. Six of the items were then revised and four were omitted, resulting in the 26 final items (see Appendix), with two items being reverse scored.

PROCEDURE

For the initial validation stage, a new sample was recruited through a perinatal mental health registry affiliated with a large Midwestern university. Women were eligible to participate in the registry if they were pregnant, over the age of 18, fluent in English, and had no adoption plan. Women were contacted by mail during their second or third trimester of pregnancy and provided a brief study description, an informed consent, and a set of prenatal questionnaires to return if they agreed to participate. Women who returned the prenatal questionnaires were also mailed a follow-up questionnaire packet at 6–8 weeks postpartum. Women received a $5 gift card upon receipt of each set of questionnaires.

Prenatal questionnaires were mailed out to 273 women who met the criteria. One hundred thirty-four women returned prenatal ques-

TABLE 1. Participant characteristics

	M (*SD*)
Maternal age	30.69 (4.87)
Weeks pregnant	31.14 (4.13)
	% (*n*)
First-time mothers	56.7 (76)
Partnered	91.0 (122)
Race	
White	84.3 (113)
African American	3.7 (5)
Asian	7.5 (10)
Other	4.4 (6)
Educational level	
Below high school	.7 (1)
Some college	9.0 (12)
College graduate	30.6 (41)
Beyond college	50.7 (68)
Income level (US$)	
<15,000	6.7 (9)
15,000–29,999	11.2 (15)
30,000–44,999	9.7 (13)
45,000–59,999	11.2 (15)
≥60,000	59.7 (80)

tionnaires, for a response rate of 49%. Of those, 113 women (84%) also returned postpartum questionnaires, participating at both study time points.

PARTICIPANTS

Participant characteristics at baseline are presented in Table 1. Analyses revealed that women who dropped out had significantly higher prenatal levels of depressive symptoms based on Edinburgh Postpartum Depression Scale (EPDS) scores (*M* = 7.10, *SD* = 4.86) than those who remained (*M* = 4.64, *SD* = 3.96), *t*(132) = 2.52, *P* = .013. No other differences were found.

MEASURES

Maternal Depressive Symptoms. The EPDS[28] was used to assess depressive symptoms prenatally and postpartum. The EPDS is a 10-item self-report that was created for use with postpartum women and has been established as a valid and reliable measure with pregnant women.[29] Participants were asked to rate statements, such as "I have been so unhappy that I have been crying" on a scale from 0 = *No, never*, to 3 = *Yes, most of the time*, by choosing the response that best described their feelings over the past week. Scores were summed for the 10 items with a higher score indicating more depressive symptoms.

Parental Sense of Competence. The parenting sense of competence scale (PSOC)[30] is a valid, reliable 16-item self-report questionnaire that assesses how competent and satisfied parents feel in their role as parents. The 8-item *Efficacy* subscale was utilized in the current study to examine women's beliefs regarding how efficacious they felt as a mother (e.g., being a parent is manageable, and any problems are easily solved) and was completed by women at both time points, using a 6-point Likert scale ranging from 1 = *strongly agree* to 6 = *strongly disagree*. Responses were averaged across items, with a higher score indicating higher self-efficacy. The PSOC was selected for construct and discriminant validity testing because, upon examination of the items, it was most closely related to our conceptualization of the anticipated self-efficacy factor, yet would establish that the RMBS as a whole was not another measure of parenting efficacy.

DATA ANALYSIS PLAN

Exploratory factor analysis (EFA) was used to examine the factor structure of the RMBS. After individual factors were identified, Cronbach's alpha tested the internal consistency and bivariate correlations explored the measure's stability, discriminant validity, and convergent validity. Finally, regression analyses tested the predictive validity of the RMBS for postpartum depressive symptoms. All analyses were completed using SPSS 20.

RESULTS

EFA

EFA of the prenatal data was conducted to determine how many factors were present and the nature of those factors. Principal axis factoring was utilized for the extraction method as well as Promax rotation with Kaiser normalization. Initial factors were determined by those with an eigenvalue greater than one and examination of the scree plot. Two items, "Whether or not I breastfeed will affect my baby" and "I'm uncomfortable sharing my parenting worries with others," did not load onto any of the factors in the factor matrix and had communalities below .3, therefore, they were deleted and the EFA was run again, leaving 24 remaining items. A four-factor solution, with few items cross-loading, explained 44.10% of the variance. There were common themes that unified the items in each factor. See Table 3 for the descriptive statistics and EFA loadings for each factor.

The first factor included nine items that reflected, as expected, women's PSEM and will subsequently be called the PSEM subscale. An example item was "I should do everything for my baby myself" and these subscale items typically focused on mother-specific actions or feelings in relation to the child. A second factor seemed to be specific to perceptions of expectations of either the mother or child and included seven items, such as "Babies get hurt or sick easily" and "Being a mother should be positive." This factor was referred to as the role identity subscale (RI) because each item revolved around the specific role of mother or child. The four items in the third factor were related to confidence or efficacy, such as "I feel confident that I can manage the responsibilities of motherhood," and was labeled the maternal confidence subscale (MC). The final, fourth, factor highlighted the concept of what is a good or bad mother, particularly with regard to the mother's parenting skills and the baby's resulting behavior. This factor consisted of four items and included "If I can't calm my baby when s/he cries, then I am not a good parent" and was labeled the maternal dichotomy (MD) subscale because the items focused on the duality of being a good or bad parent.

INTERNAL CONSISTENCY AND CROSS-TIME STABILITY

Based on the factor analysis findings, four subscales were created by averaging across items. A total score was created by averaging across the 24 items of the RMBS.

TABLE 2. Means, standard deviations, alphas, and correlations for depressive symptoms, PSOC, and RMBS

	Prenatal ($n = 134$)			Postpartum ($n = 113$)			
	M	SD	α	M	SD	α	r
Depression	5.02	4.19	.87	4.95	3.72	.82	.46***
PSOC	2.96	1.08	.91	2.34	.96	.92	.30**
RMBS	3.85	.72	.85	3.96	.70	.85	.79***
PSEM	3.80	1.09	.85	4.02	1.04	.81	.73***
RI	4.94	.88	.75	5.05	.68	.51	.67***
MC	2.51	.97	.74	2.37	.89	.73	.51***
MD	3.37	1.04	.77	3.54	1.05	.72	.75***

PSEM, perceptions of societal expectations of mothers; RI, role identity; MC, maternal confidence; MD, maternal dichotomy.
*$P<.05$, **$P<.01$, ***$P<.000$.

Cronbach's alpha assessed the internal consistency of the entire RMBS and each subscale at the prenatal and postpartum time points and suggested that the full-scale and subscales were internally consistent (see Table 2 for prenatal and postpartum alphas, means, and standard deviations). Bivariate correlations revealed stability in individual differences over time in women's beliefs from prenatal to postpartum (see Table 3).

CONSTRUCT VALIDITY

Bivariate correlations (see Table 4) revealed convergent validity of the RMBS MC subscale with an established self-efficacy measure, the PSOC. Discriminant validity between the entire RMBS and the PSOC was demonstrated through bivariate correlations (see Table 4), as well as between the PSOC and the MD, RI, and PSEM subscales.

PREDICTIVE VALIDITY

Hierarchical multiple regression was conducted to determine whether the RMBS or PSOC better predicted postpartum depressive symptoms, after controlling for initial levels of depressive symptoms prenatally (see Table 5). The prenatal EPDS was entered at Step 1, explaining 21.5% of the variance in postpartum depressive symptoms. The prenatal RMBS and prenatal PSOC mean scores were entered in Step 2, explaining an additional 6.7% of the variance, R^2 change $= .07$, F change $(2, 109) = 5.10$, $P = .008$. In the final model, both the PSOC and RMBS were statistically significant, with the prenatal RMBS recording a higher beta value ($\beta = .21$, $P = .016$) than the prenatal PSOC ($\beta = .17$, $P = .047$). The final model explained a total variance of 28.2%, $F(3, 109) = 14.30$, $P = .016$.

A second hierarchical multiple regression examined if specific RMBS subscales or the PSOC better predicted postpartum depressive symptoms. Prenatal EPDS was entered into Step 1 to control for initial level of depressive symptoms. The four prenatal RMBS subscales and the PSOC mean scores were entered into Step 2 to examine the unique contribution of each in predicting postpartum depressive symptoms. The results of the

TABLE 3. RMBS factors and loadings from principal axis factoring (promax rotation)

Factor (percent variance accounted for) Item	1	2	3	4
Factor 1: PSEM (22.42%)				
1. I should do everything for my baby myself	.81			
2. I feel guilty if I leave my baby with someone else in order to do something for myself	.68			
3. I should be able to figure out and fix parenting difficulties myself	.58			
14. Having negative thoughts about my baby means something is wrong with me	.61			
17. If I am doing well as a parent, then my baby will not have difficulties	.61			
19. I have to interact with my baby all the time when I am with him or her	.45			
18. I should not feel frustrated with my baby when my baby is difficult	.40			
4. Being a parent means I should not do anything that is morally wrong	.40			
23. I feel guilty when I put my needs before the needs of my baby	.34			
Factor 2: RI (11.33%)				
12. Being a mother should be positive		.76		
11. I would feel guilty if I did not enjoy being a mother		.66		
26. Being a parent means worrying about my baby		.49		
15. As a parent, I must be flexible all the time		.40		
16. I feel guilty when I am not patient with my baby		.38		
24. Babies get hurt or sick easily		.36		
25. Babies should not experience discomfort (such as crying), hardship, or emotional pain		.33		
Factor 3: MC (5.80%)				
6. I feel confident in my ability to raise a happy and healthy baby			.77	
10. Other mothers are better able to comfort their baby			.76	
13. I feel confident that I can manage the responsibilities of motherhood			.66	
9. Other mothers have fewer parenting difficulties than I do			.49	
Factor 4: MD (4.55%)				
21. If my baby misbehaves, then others will think I am a bad parent				.73
22. If my baby does not sleep well, it is a sign that I am not doing a good job as a mother				.67
7. It is important to me that others think I'm a good parent				.67
20. If I can't calm my baby when s/he cries, then I am not a good parent				.60

TABLE 4. Correlation coefficients of prenatal and postpartum scores between the PSOC and the RMBS

	1	2	3	4	5	6
1. PSOC efficacy	–	.06	−.00	−.10	.25**	.16
2. RMBS	.07	–	.91**	.75**	.35**	.60**
3. PSEM	−.08	.89**	–	.59**	.17	.40**
4. RI	−.13	.71**	.53**	–	−.01	.26**
5. MC	.50**	.52**	.25**	.14	–	.19*
6. MD	.17	.76**	.52**	.39**	.48**	–

Note: Prenatal correlations are above the diagonal; postpartum correlations are below the diagonal.
*P<.05, **P<.01, ***P<.001

TABLE 5. Summary of hierarchical multiple regression analysis for PSOC and RMBS predicting postpartum depressive symptoms ($n = 113$)

Variable	Model 1			Model 2		
	B	SE B	β	B	SE B	β
Initial depressive symptoms	.44	.08	.46***	.34	.08	.36***
PSOC				.59	.29	.17*
Rigidity of maternal beliefs				1.09	.45	.21*
R^2		.22			.28	
F for change in R^2		30.45***			5.10**	

*P<.05, **P<.01, ***P <.001.

regression (see Table 6) indicated that the RMBS subscale, MD, was the only significant predictor of postpartum depressive symptoms beyond initial depressive symptoms.

DISCUSSION

The results of this study suggest that the RMBS is a valid and reliable measure with which to examine previously understudied areas of maternal beliefs. The EFA supported a four-factor solution, resulting in subscales of MC, RI, PSEM, and MD, corresponding with two of the three hypothesized factors. The items in the MC subscale were consistent with feelings of anticipated self-efficacy, and items in the PSEM factor included beliefs that reflected the pressure and expectations that society and culture place on women as mothers.[24,25], [31,32] Items related to child vulnerability, the third hypothesized factor, were grouped within RI, which also included RI ideals for the mother. There may not have been enough items related specifically to the child to form a stand-alone factor, as only two items were infant-specific and did not include the mother ("Babies get

TABLE 6. Summary of hierarchical multiple regression analysis for PSOC and RMBS subscales predicting postpartum depressive symptoms (*n* = 113)

	Model 1			Model 2		
Variable	B	SE B	β	B	SE B	β
Initial depressive symptoms	.44	.08	.46***	.30	.09	.32***
PSOC				.42	.30	.12
PSEM				.11	.37	.03
MC				−.02	.47	-.01
RI				.55	.34	.15
MD				.73	.33	.21*
R^2		.22			.31	
F for change in R^2		30.45***			.10*	

*P<.05, **P<.01, ***P<.00.

hurt or sick easily" and "Babies should not experience discomfort such as crying, hardship, or emotional pain"). If more infant-only items had been included, perhaps a child vulnerability factor would have emerged. A fourth, unanticipated, factor emerged: MD. Items in this factor suggested mothers are categorized into "good" and "bad" based on how the child behaves or reacts to the mother and the mother's ability to parent effectively. This categorization appears to be separate from general thoughts and feelings about motherhood found in the PSEM factor. A key difference between the items in the PSEP and the MD subscales could be that the MD items all reflect public behaviors that others may observe and judge. For example, people may have a negative view of the mother of a crying baby who refuses to be soothed because it may be a public demonstration that the mother is not a good mother, whereas the PSEP items reflect specific internal feelings the mother may have (i.e., feeling frustrated or guilty). Therefore, PSEP and MD represent differentiation between societal expectations that are internalized versus those that are experienced in a more public manner.

The second goal of this study was to test the internal reliability and construct validity of the RMBS. Cronbach's alpha confirmed internal consistency prenatally and postpartum for all RMBS subscales, with the exception of the postpartum RI subscale, and bivariate correlations supported that the constructs were stable over time. The RI factor may not have had good internal consistency during the postpartum period because of its focus on two different roles, that of the mother and the child. Previous qualitative research[31] found that women experienced a loss and/or change of identity over the transition to motherhood in a number of areas, such as autonomy, occupation, and relationships. It may be that poor postpartum consistency in RI reflects the change in the mother's role, her perceptions of the child's role, or both. Aspects of RI for mother and/or child may change throughout the perinatal period and further research should separate the two and investigate the specific nature of these beliefs.

Construct validity was established in two ways. First, the MC subscale was significantly correlated with an established measure of parenting self-efficacy, the PSOC scale, suggesting convergent validity, while the other subscales and the RMBS as a whole were not significantly correlated with the PSOC, providing support for discriminant validity.

Regression analyses supported the predictive validity of the RMBS with regard to postpartum depressive symptoms. Although both the RMBS and the PSOC were significant predictors, the coefficient for the RMBS was larger, indicating that it was a better predictor of postpartum depressive symptoms than the PSOC. When the regression analysis was conducted with the RMBS subscales, only MD, measuring womens' rigid in thinking about being a "good" or "bad" mother, was a significant predictor of postpartum depressive symptoms. This finding could be related to the earlier point that the MD factor may represent the visible manifestation of societal expectations. For example, a woman who is more rigid in believing that "good" mothers must be able to calm their crying babies may be more susceptible to feelings of depression because she is more focused on what other people will think of her parenting skills.

Limitations of this study are the small sample size and homogeneous nature of the sample. The women, as a whole, had relatively high levels of education, had high levels of income, and most had partners. As a result, the study findings are not generalizable to other populations of women who may be at higher risk for perinatal depression. Additionally, there was a not a set time point at which data were collected; therefore, we do not know if women's beliefs may change over the course of the early postpartum period. Although women were sent the postpartum survey approximately 1 month after giving birth, the age of the baby upon survey completion ranged from 3 to 21 weeks. Based on participants' anecdotal comments, responses may have been quite different during the immediate postpartum period or if there was a stressful life event, such as moving, that adversely affected their mental health. Lastly, only one measure, the PSOC, was used to demonstrate convergent and discriminant validity. Examining the RMBS with other measures of MC would strengthen the validity of the measure.

All hypotheses regarding validity and reliability were supported, indicating that the RMBS is a valid and reliable measure. Future research should test the scale with a larger, more diverse sample. It would also be interesting to determine if these beliefs change throughout pregnancy and the beliefs women hold prior to becoming pregnant. This scale could be used in conjunction with observational measures to investigate the relations of these beliefs with aspects of the parent–child relationship, the romantic partner relationship, and parenting behaviors. The RMBS should be validated with a clinically depressed sample and tested as a discriminating measure between depressed and nondepressed women.

The measure may be useful with clinical populations to identify maladaptive or rigid thoughts, which could be a focus of intervention. Specifically, the RMBS may be used with cognitive behavioral therapy (CBT) to identify particular beliefs that may be associated directly with maintaining and/or potentially improving depressive symptoms. These specific beliefs may be a direct focus of the CBT.[33] This tool may also be used to guide conversation about motherhood expectations within any context where pregnant women present (e.g., prenatal care, social services) by highlighting beliefs that may be overly rigid or lead to future distress or other problems. Additionally, the RMBS may identify women who are at risk for postpartum depression in clinical contexts. For example, obstetrics patients who endorse problematic beliefs may be monitored, or referred for some sort of therapeutic treatment or parenting education that focuses on realistic maternal beliefs about infants and parenthood.

This study represents a first step toward closer examination of how women's internalization of societal expectations about motherhood and their anticipated maternal self-efficacy may be associated with women's mental health during the perinatal period by providing a valid and reliable measure with which to investigate these beliefs in future research. Epidemiological, clinical, or health services research could utilize this measure to better identify risk factors, determine predictors of response to various treatments, and streamline implementation of screening, referral, and personalized intervention programs in prenatal care or other community settings.

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APPENDIX

RIGIDITY OF MATERNAL BELIEFS SCALE

Below is a list of statements dealing with your general feelings about being a parent or becoming a parent. Please circle the response that best applies to you, using the following scale.

1–Strongly disagree
2–Disagree
3–Slightly disagree
4–Neither agree or disagree
5–Slightly agree
6–Agree
7–Strongly agree

1. I should do everything for my baby myself.
2. I feel guilty if I leave my baby with someone else in order to do something for myself.
3. I should be able to figure out and fix parenting difficulties myself.
4. Being a parent means I should not do anything that is morally wrong.
5. Whether I breastfeed or not will affect my baby.
6. I feel confident in my ability to raise a happy and healthy baby.[a]
7. It is important to me that others think I'm a good parent.
8. I'm uncomfortable sharing my parenting worries with others.
9. Other mothers have fewer parenting difficulties than I do.
10. Other mothers are better able to comfort their baby.
11. I would feel guilty if I did not enjoy being a mother.
12. Being a mother should be positive.
13. I feel confident that I can manage the responsibilities of motherhood.[a]
14. Having negative thoughts about my baby means something is wrong with me.
15. As a parent, I must be flexible all the time.
16. I feel guilty when I am not patient with my baby.
17. If I am doing well as a parent, then my baby will not have difficulties.
18. I should not feel frustrated with my baby when my baby is difficult.
19. I have to interact with my baby all the time when I am with him or her.
20. If I can't calm my baby when s/he cries, then I am not a good parent.
21. If my baby misbehaves, then others will think I am a bad parent.
22. If my baby does not sleep well, it is a sign that I am not going a good job as a mother.
23. I feel guilty when I put my needs before the needs of my baby.
24. Babies get hurt or sick easily.
25. Babies should not experience discomfort (such as crying), hardship, or emotional pain.
26. Being a parent means worrying about my baby.

[a]Reverse coded items.