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Effect of parenting competence on postpartum depression: The role of ruminative thinking

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Abstract Postpartum depression (PPD) has a high prevalence worldwide and adversely impacts both family and society. This study focuses on the association between parenting competence (PC), ruminative thinking (RT), and PPD among postpartum women, specifically examining the mediating role of RT. This quantitative study employed structural equation modeling and collected data using purposive sampling. Based on previous evidence,three-factor models require a minimum sample size of 86, though most studies recommend a value exceeding 200. After excluding missing data and outliers, the final sample consisted of 269 women, all within eight weeks postpartum, from three hospitals in China.The inclusion criteria were having at least a middle school diploma, voluntary participation, and no recent history of psychotherapy and medication treatment. The instruments used were the Edinburgh Depression Scale, Parenting Sense of Competence Scale, and Rumination Response Scale. The study sequentially performed descriptive statistics, tested measurement models and structural models, and calculated path coefficients. The results indicated that (i) PC negatively predicted PPD; (ii) PC negatively predicted RT; and (iii) RT positively predicted PPD. Furthermore, RT mediated the relationship between PC and PPD, with PC and RT exerting nearly equivalent effects on PPD. The study confirmed the impact of PC on PPD through RT among Chinese postpartum women. Both PC and RT are critical factors in PPD. The study establishes a structural framework for understanding the relationships between PC, PPD, and RT, emphasizing the significant roles of PC and RT in the development of PPD. This provides valuable insights into understanding the mechanisms of PPD and offering reference for future research. In practice,healthcare professionals and family members should consider these factors, particularly ruminative thinking. By improving treatment plans and care strategies, they can reduce the incidence of postpartum depression and enhance the quality of life for postpartum women.

Keywords: postpartum depression, parenting competence, ruminative thinking, mediating effects

1. Introduction

Postpartum depression (PPD) is a public health problem among women. It is usually characterized by symptoms such as low mood, lack of pleasure, sadness, and restlessness. Globally, postpartum women with no record of depression are 12% more likely to develop depression, with an overall prevalence of 17% (Shorey et al., 2018). Another study reported an approximate prevalence of PPD between 14% and 25% (Papadopoulou et al., 2023). This finding suggests that approximately two out of every ten women suffer from depression. This is a serious situation and warrants consideration. In China, the prevalence of PPD is even higher, with data showing that the prevalence of PPD in China is 21.4%, which is significantly higher than the prevalence reported in the U.S. (8.6%) and Japan (14.0%) (Liu et al., 2021). This raises more concerns and worries for this population. In addition, the poor condition of postpartum women can affect parent-child and family harmony. Paying attention to new mothers' PPD and parenting situation is not only beneficial to personal health but also helps to maintain family harmony and promote a congenial environment.

There are many causes of PPD, such as genetic, endocrine, and personality traits; economic, stress and educational factors (Alloghani et al., 2024). Most of these variables are derived from external or biological factors. Since they are generally stable or not easily controlled, improving PPD is challenging. Research tends to focus on individual factors that can be easily moderated, such as postpartum women's thinking patterns and coping abilities. In recent years, parenting competence (PC) has gradually received increasing attention from researchers. Parenting behaviors are evaluated both outside and by women themselves. When an individual can solve problems well and has adequate parenting competence, the nurturer is regarded as competent; otherwise, it is regarded as a failure or incompetent, reflecting parents' self-confidence and practical ability to care for and educate their children. Its level is related not only to how well mothers adapt to their roles but also to their psychological well-being to some extent (Tuntipuchitanon et al., 2022; Huang et al., 2023). Therefore, PC was considered a key psychological and behavioral factor affecting PPD in this study. With respect to cognition, this study focused on ruminative

thinking (RT). It manifests as individuals' repeated thoughts about negative emotions and experiences, a maladaptive thinking pattern. One study revealed an association between RT and general depression (Lionetti et al., 2021). These findings suggest that RT can also be an important variable in PPD. However, owing to the lack of evidence from postpartum women, the existing studies could not explain the relationship between RT and PPD or the role of RT between PC and PPD. Exploring the mediating role of RT between PC and PPD can help elucidate the link between them and is more important for understanding and treating PPD. Therefore, this study proposed research question Q1: What is the effect of PC on PPD in postpartum women? Q2: To what extent does RT mediate the relationship between PC and PPD in postpartum women?

The life of a postpartum woman is quite stressful and challenging, especially in regard to parenting. Parenting competence (PC) refers to a parent's perception of their ability to fulfill parenting responsibilities and is a central concept in the internal dynamics and processes of the family system. It reflects the competence of parenting behaviors and their close connection to children's healthy development and overall well-being (Nunes & Ayala, 2016). Hutchinson and Cassidy (2021) demonstrated an association between PC and mental health, noting that PC may be a critical factor in mental health. Ponomartchouk and Bouchard (2014) established a link between PC and psychiatric symptoms among postpartum women, showing that the mental health of mothers and children is closely related. The findings of these studies suggest that PC may be a key predictor of mental health. Furthermore, some scholars have focused on the link between PC and depression. For example, in their study of obesity prevention and treatment, Heerman et al. (2017) selected 601 parent-child pairs for regression analyses and concluded that PC was negatively correlated with parental depression and linked to child sleep duration. However, such studies are not abundant. Most scholars have focused on the relationship between parenting and child health, such as hostile parenting and child issues (Hentges et al., 2021; Frosch et al., 2019). In light of the above, this study investigated the association between mothers' PC and PPD and proposed research hypothesis *H1: PC is a negative predictor of PPD.*

Ruminative thinking (RT), a key cognitive feature of depression, was another variable in our study. RT refers to a pattern of coping with distress that involves repetitive and passive attention to distressing symptoms, as well as the possible causes and consequences of those symptoms. Mounting evidence suggests that it is a trait or coping style (Nolen-Hoeksema et al., 2008; LeMolt et al., 2013; Mollaahmetoglu et al., 2021). RT associates negative events with negative emotions and adversely affects problem-solving. Regardless of whether it is a state or a trait, RT cannot be dissociated from experiences of loss or frustration. Many studies have established RT as a key mechanism underlying the formation of common depression (Spasojević & Alloy, 2001; Cano-López et al., 2022). Individuals who regularly and repetitively think about negative stimuli may suffer from depression or maintain a depressed state for longer durations. These findings suggest that RT may positively predict depression, playing a crucial role in the onset and maintenance of the condition. However, existing studies have focused less on perinatal women, and RT has not been widely examined and described extensively in the context of perinatal depression (including PPD) (DeJong et al., 2016; Kalmbach et al., 2020). Therefore, this study modeled the relationship between RT and PPD and proposed the second research hypothesis: *H2: RT is a positive predictor of PPD.*

An important question is whether a link exists between parenting competence (PC) and ruminative thinking (RT). Current research in this area is inconclusive or scarce. One study examined the link between harsh parenting styles and adolescent depression through RT, which mediates the relationship between parenting styles and adolescent depression. Although this study does not directly address PC and PPD, it suggests a potential connection between parenting behavior, RT, and depression (Li et al., 2023). Another study demonstrated that positive parenting behaviors by mothers can prevent adolescent rumination and the subsequent development of depressive symptoms (Gaté et al., 2013). This finding also supports a possible link between parenting behaviors and RT. Furthermore, PC is reflected in the dimensions of parenting satisfaction and self-efficacy, which are closely linked to parenting processes and behaviors. Parenting self-efficacy is correlated with RT or cognitive style (Fang et al., 2021), whereas parenting experience and competence can shape parenting beliefs and behaviors (Mascheroni et al., 2022). These perspectives suggest implicit intrinsic links between PC and RT. Thus, RT may mediate the relationship between PC and PPD. The third hypothesis was formulated as H3: PC is a negative predictor of RT. Combining all the variables, the final hypothesis was proposed as *H4: RT mediates the relationship between PC and PPD.*

Combined with the above, this study used structural equation modeling to examine the mediating role of RT and hypothesized that RT would moderate the relationship between PC and PPD. Investigating the relationships among these three variables can contribute to informing interventions and services for medical practitioners, mental health workers, and public administrators.

2. Methods

2.1. Research design

A cross-sectional quantitative design was used in this study to explore the direct relationship between PC and PPD, with a particular focus on the mediating role of RT. The study employed structural equation modeling (SEM) to assess the relationships among these variables. The researcher screened and collected samples from three hospitals in China and used three instruments to obtain values for the PPD, PC, and RT. All the participants were required to complete all the questions

within 30 minutes. The study subsequently validated the measurement models, structural model, and calculated path coefficients to analyze the relationships between PPD, PC, and RT.

2.2. Participants and sampling

This study was conducted from January 2024 to April 2024 and targeted postpartum women in three hospitals in China. The study used purposive sampling. The participants' vital information was anonymized. The study sample comprised perinatal women (0–8 weeks after delivery) who visited the three hospitals during this period. The prevalence of PPD is greater during this stage, making it an ideal time to manage and track data. The sample inclusion criteria were a) having a middle school education or higher; b) not taking psychotropic medication or attending psychotherapy recently; c) volunteering to participate in the study. To prevent a floor effect from influencing the survey (i.e., a very low or zero score on the Edinburgh Postnatal Depression Scale (EPDS)), postpartum women who attended screening and reported significant depression were selected for this study. This approach helped reduce error and included a richer sample. Participants who satisfied these requirements were selected as test subjects for subsequent standardized scales. Sim et al. (2021) recently reported that different mediation models require different sample sizes. Three-factor models require a minimum sample size of no less than 86, with most studies recommending a value above 200 (Wolf et al., 2013). Therefore, the researcher surveyed 300 postpartum women. After 31 questionnaires that were omitted, incorrectly completed, or not completed in full were deleted, the final sample size included in the study was 269. The effective recovery rate of the questionnaire was 89.6%.

2.3. Instruments

The instruments used included the Parenting Sense of Competence Scale (PSOC), the Rumination Response Scale (RRS), and the Edinburgh Postnatal Depression Scale (EPDS). These instruments were used to measure the intensity of parenting competence (PC), ruminative thinking (RT), and postpartum depression (PPD) among postpartum women.

The EPDS, developed by Cox et al., is a widely used self-assessment scale for screening PPD and can also be used to screen for depression during pregnancy. The EPDS measures emotional state over the past seven days and consists of 10 questions, each with four options scored from 0 to 3. The total score ranges from 0 to 30. For example, the question "I have been able to laugh and see the funny side of things" has the response "As much as I always could," which corresponds to 0 points. Each question has different options indicating various levels of response. The EPDS is a unidimensional screening tool that uses the total score to differentiate between non-depressed individuals, depressed individuals, and the level of depression. Typically, scores above 11 indicate a positive screen for depression, warranting further diagnosis or intervention (Levis et al., 2020). The Chinese version of the EPDS has a split-half reliability of 0.76, a Cronbach's alpha of 0.79, and a test-retest reliability of 0.85 (Wang et al., 2009), indicating high reliability.

The Chinese version of the RRS, developed by Treynor et al., was modified by Chinese scholars. The instrument's structure remains consistent with that of the original version, with minor differences in expression. The scale comprises 22 questions across three dimensions: symptom-based rumination, brooding, and obsessive reflection. For example, participants are asked to consider how sad they feel, with response options ranging from "almost never" to "almost always," scored from 1 to 4. Higher scores indicate more severe RT. Studies have shown that the original scale has high reliability, with a Cronbach's alpha of 0.90 (Treynor et al., 2003). The Chinese version of the RRS has a Cronbach's alpha value of 0.953 (Qiu et al., 2022), indicating its suitability for research.

The PSOC measures the overall sense of parenting competence with 17 items across efficacy and satisfaction. The efficacy factor examines parents' perceived competence and problem-solving skills, whereas the satisfaction factor assesses parents' anxiety, motivation, and frustration. Each item contains specific statements scored from 1 (strongly disagree) to 6 (strongly agree). Higher scores indicate higher levels of parenting self-esteem. The alpha coefficients for the satisfaction and efficacy scales were 0.75 and 0.70, respectively (Calvo & Bianco, 2015), meeting psychometric requirements. The Chinese version of the PSOC supports the two-factor model, with Ngai et al. (2007) finding good internal consistency (α = 0.85) and retest reliability (coefficient = 0.87). Therefore, the Chinese version of the PSOC was deemed suitable for use.

2.4. Data processing

Descriptive statistics were tested via IBM SPSS 27. AMOS 23 was employed to test the mediating role of RT and the relationships between the variables. First, this study investigated the correlation between PC, RT, and PPD while validating the measurement model for each variable. This process aims to reflect the variables' interrelationships and assess each measurement model's quality. Second, if the results of the measurement model were satisfactory, the structural equation model was tested via the maximum likelihood (ML) method. Several indices were chosen to assess the model fit: CMIN/DF, CFI, GFI, TLI, SRMR, and RMSEA. Typically, a good model fit is indicated by CMIN/DF < 3, CFI and GFI > 0.9, TLI > 0.9, SRMR < 0.08, and RMSEA < 0.08 (Hu & Bentler, 1999; Jain & Ajmera, 2019). Finally, the path coefficients were examined, and bias-corrected bootstrap 95% confidence intervals (CIs) were used to determine the most notable effects, including direct and indirect effects. These results reflect the validity of the study's hypotheses.

3. Results

3.1. Sample characteristics

The average age of these postpartum women was 26.77±3.41 years, and their demographic information is summarized in Table 1. The educational level of the participants was predominantly high school and a bachelor's degree (73.98%). There was little difference in the ethnicity of the participants (53.16% vs. 46.84%). The majority of participants had a child (85.02%). The normal delivery rate was higher than the cesarean delivery rate (58.36% vs. 41.64%). Most of the participants were living in nuclear families, accounting for 64.68% of the total families. Economic status was mostly moderate (60.59%). These results provide valuable context for other researchers to compare different studies and samples.

Table 1 Basic information about the participants.

Factor	Frequency (n)	Percentage (%)	Cumulative percentage (%)
Educational background			
Middle school	53	19.70%	19.70%
High school	102	37.92%	57.62%
Undergraduate	97	36.06%	93.68%
Postgraduate	17	6.32%	100.00%
Ethnicity			
Han	143	53.16%	53.16%
Ethnic minority	126	46.84%	100.00%
Number of babies			
0 (miscarriage or infant death within 28 weeks)	6	2.23%	2.23%
1	228	85.02%	87.25%
2	30	11.15%	98.40%
3 or more	5	1.6%	100.00%
Mode of delivery			
normal birth	157	58.36%	58.36%
Cesarean birth	112	41.64%	100.00%
Family living style			
Self, partner, and children	174	64.68%	64.68%
Owners and children/only living on their own	25	9.29%	73.98%
Self, partner, children, and parents	70	26.02%	100.00%
Economic condition			
Well off	49	18.22%	18.22%
Moderate	163	60.59%	78.81%
Difficult	57	21.19%	100.00%

3.2. Descriptive statistics of the variables

The descriptive statistics and correlations of the variables are presented in Table 2. PC and PPD exhibited a moderate negative correlation ($r = -0.425$), and PC presented a moderate negative correlation with RT ($r = -0.449$), whereas RT presented a moderate positive correlation with PPD ($r = 0.440$). The correlation coefficient was less than the square root of the average variance extracted (AVE), indicating good discriminant validity among these variables, allowing for their distinction.

Table 2 Variable information statistics.

Variables	Correlations/discriminant validity			Descriptive statistics		
	PC	RT	PPD	Sample size	Mean	Deviation
PC	0.797	-	-	269	59.041	15.156
RT	−.449**	0.771	-	269	67.814	13.003
PPD	−.425**	.440**	0.747	269	19.636	6.252

**p＜0.01. Interpretation: Bolded values in black are AVE open square roots, and the rest are correlation coefficients.
Abbreviations: Parenting competence (PC), ruminative thinking (RT), postpartum depression (PPD)

3.3. Measurement models

This study involved two latent variables (PC and RT) and one observed variable (PPD). The measurement model for each variable was examined to determine whether the existing dimensions could describe each variable.

a) PC: The PC variable contains two dimensions with 17 questions. The results of the validated factor analysis were as follows: the CMIN/DF was 2.032 (less than 3); the GFI and AGFI were greater than 0.8, which is within the acceptable range; the IFI, TLI, and CFI all reached the criterion of 0.9 or more; the SRMR was 0.05 (less than 0.08); and the RMSEA was 0.062 (less

than 0.08). These indicators suggest that the PC model displayed a good fit. Additionally, the constitutive reliability (CR) was 0.776 (greater than 0.7), and the average variance extracted (AVE) was 0.635 (greater than 0.5). This indicates good convergent validity for PC, with efficiency and satisfaction reflecting their common features well.

b) RT: The RT variable has three dimensions and contains 22 questions. The validated factor analyses were as follows: the CMIN/DF was 1.755 (less than 3); the GFI and AGFI were greater than 0.8, which is within the acceptable range; the IFI, TLI, and CFI all met the criterion of 0.9 or more; the SRMR was 0.045 (less than 0.08); and the RMSEA was 0.054 (less than 0.08). These results suggest that the RT model has a good fit. The CR value was also 0.815 (greater than 0.7), and the AVE value was 0.595 (greater than 0.5). This finding indicates that the RT model is reasonable and can be used to construct a mediation model.

c) PPD: The PPD variable is indicated by the EPDS score. All of the above indicators were met after validated factor analyses of the ten questions. These findings suggest that the ten items of the EPDS measure PPD well and have good measurement performance.

At this stage, the study validated the factor analyses of the three variables, and the results showed that they possessed good fit, convergent validity, and discriminant validity. This reflects the strong associations between the variables and their respective dimensions or items, and these variables are well differentiated. This lays the foundation for subsequent tests and modeling of the mediating effects.

3.4. Structural model

The study used RT as a mediating variable between PC and PPD to construct the model (Figure 1), focusing on the degree of model fit: $\chi^2/DF = 2.65$ (<3); CFI = 0.982 (>0.9); GFI = 0.98 (>0.9); TLI = 0.962 (>0.9); SRMR = 0.028 (<0.08); RMSEA = 0.069 (<0.08). These indicators suggest that the model is acceptable. The model shows that PC can influence PPD partly through RT and that PC can also directly influence PPD. The path coefficients (Table 3) estimated in this study via the ML method revealed that PC had a significant negative effect on PPD ($\beta = -0.263$, $p < 0.05$), thus validating Hypothesis H1. Additionally, RT significantly affected PPD ($\beta = 0.37$, $p < 0.05$), confirming Hypothesis H2. Furthermore, PC significantly negatively affected RT ($\beta = -0.612$, $p < 0.05$), validating hypothesis H3.
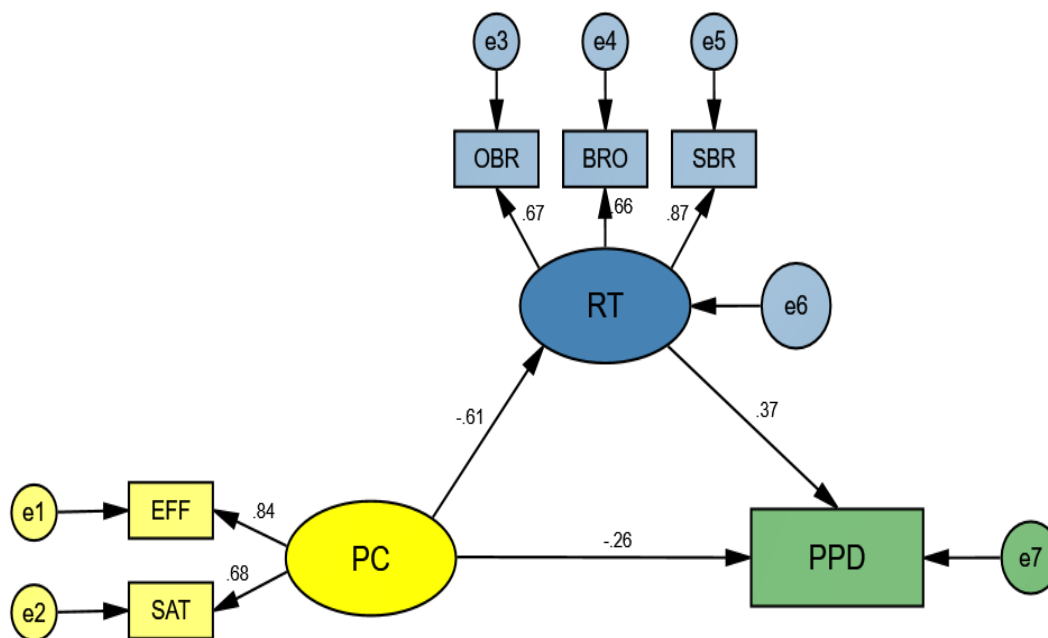

Figure 1 Standardized coefficients for the model; N = 269; (PC) parenting competence; (RT) ruminative thinking; (PPD) postpartum depression; (EFF) efficacy; (SAT) satisfaction; (SBR) symptom-based rumination; (BRO) brooding; (OBR) obsessive reflection.

Table 3 Path coefficients.

Model pathways			Standardized	Nonstandardized	SE.	CR.	P
PC	-->	RT	−0.612	−0.342	0.054	-6.298	***
PC	-->	PPD	−0.263	−0.198	0.068	−2.928	0.003
RT	-->	PPD	0.37	0.50	0.117	4.271	***

**p＜0.01.

3.5. Bootstrapping

The bootstrapping procedure tested the mediating role of RT between PC and PPD. Table 4 shows these variables' direct and indirect effects at the 95% confidence level. The total effect value for PC on PPD was −0.49, with both the lower and upper

confidence intervals not containing zero, indicating the presence of a total effect. The direct effect was −0.263, accounting for 53.6% of the total effect. The absence of zero in the confidence intervals for the direct effect also indicates its significance.

Table 4 Parameters and 95% CIs for Model 3.

Effects	Estimated (standardized)	Bias-corrected 95% CI		Percentile 95% CI	
		Lower	Upper	Lower	Upper
Total effect					
PC-->PPD	−0.49	−0.624	−0.336	−0.627	-0.338
Indirect effect					
PC-->RT-->PPD	−0.227	-0.374	−0.134	−0.343	-0.11
Direct effect					
PC-->PPD	−0.263	−0.464	−0.081	−0.471	-0.09

In terms of the indirect effect, the value for the pathway from PC to RT to PPD was −0.227, accounting for 46.3% of the total effect. Again, the confidence intervals for the indirect effect did not contain zero, indicating a significant mediating role of RT. These findings suggest that RT significantly mediates the relationship between PC and PPD, accounting for 46.3% of the overall effect.

4. Discussion

4.1. Relationships among variables

Three scales, the EPDS, PSOC, and RRS, were used in our study to measure PPD, PC, and RT, respectively, among postpartum women. These variables displayed moderately strong correlations, and the significance of each path coefficient was less than 0.05. This suggests that they can be predicted according to the model path. One prior study demonstrated that parents with a high sense of PC (including efficacy and satisfaction) are less stressed and have better mental health when raising children with autism (Arellano et al., 2017), which is very favorable for alleviating depression. Another study established a strong link between PC and parental mental health (Albanese et al., 2019). Higher PC reflects good role adaptation in parents, leading to better satisfaction and psychological adaptability, which helps them resist external stressors more effectively. Moreover, studies have shown that PC may be a significant predictor of depression (Giallo et al., 2014). These studies suggest that PC is a significant indicator of mental health, especially depression, among the postpartum population and that high PC is associated with low depression. Therefore, the above findings support Hypothesis H1: PC is a negative predictor of PPD.

To explain this result more deeply, on the basis of Taylor and Brown's (1988) elaboration of positive resources, high PC can be regarded as a positive resource, contributing to positive emotions or cognitions. This positive resource or feeling can lead to positive illusions or self-deception, essentially as an outcome of emotions and cognitions reinforcing each other. Although individuals may not be able to cope with all challenges, they may feel charismatic and resilient enough to overcome obstacles. Therefore, PC (including efficacy and satisfaction) can involve self-protective mechanisms with a deceptive character, which can reduce PPD. Physicians, family members, and psychologists need to provide postpartum women with information and material resources to enhance their sense of competence, such as teaching them scientific parenting approaches and crisis-coping skills. This will certainly increase their self-awareness and positive self-assessment, helping them improve their actual competence and inner satisfaction. They may even be taught positive self-deception, abandon perfectionism, and learn to be "60-point mothers" rather than "100-point saints."

Cognitive psychology suggests that distorted information processing is a major cause of depression. Negative rumination is a repetitive, automated, distorted processing pattern. The results of this study show that high levels of RT contribute to PPD. A recent study revealed that rumination uncontrollability and negative beliefs about consequences directly or indirectly predict PPD. A cognitive model with RT as a mediator is feasible (Petrošanec et al., 2022). This confirms the link between rumination and negative postpartum emotions and endorses its suitability as a mediating variable, thus confirming Hypothesis H2. In daily life, women are more likely to co-ruminate than men (Felton et al., 2018). Therefore, partners and family members should pay close attention to this factor, as women may absorb more stress and negative information from their interactions with friends and other mothers, ultimately negatively affecting their emotions and thoughts.

4.2. The mediating role of ruminative thinking

There exists a link between PC and RT. PC negatively predicts RT, confirming that hypothesis H3 is valid and can be interpreted in three ways:

(i) Positive Cognitive Bias: A high PC can be viewed as a positive cognitive bias or emotion. Positive emotions promote various cognitive processes and control (e.g., cognitive reassessment may increase cognitive flexibility), reducing fixated, rigid negative thinking (Song et al., 2018). Thus, increased cognitive flexibility inhibits the formation of negative thought patterns and facilitates cognitive shifts and changes.

(ii) Learning perspective: From a learning perspective, positive emotion enhances an individual's memory, attention, motivation, and neuromodulation during tasks (Li et al., 2020). It acts as an accelerator for solving difficulties. Therefore, postpartum women with a strong sense of efficacy and parenting satisfaction have more cognitive resources and the capacity to make diverse assessments of difficulties rather than repeatedly falling into a vicious, homogenizing pattern of thinking.

(iii) Neuroscientific perspective: An explanation from neuroscience that the brain, as a regulator involved in activation and inhibitory regulation, may have overlapping neural networks in emotion, cognition, or behavior. For example, the prefrontal cortex and amygdala influence many cognitive processes and emotions (Sun et al., 2023). Although there is currently no direct evidence to explain the relationship between neural networks across channels, the brain may process stimuli in both a "global and directed" and "indirect and local" fashion (Depue et al., 2015). Thus, the study results suggest that positive and negative emotions or cognitions may operate in similar patterns at the brain level or be activated and inhibited by similar neural networks. Eventually, the two are balanced in competition. For example, a decrease in PC results in an increase in RT. However, more research is needed to prove and refine this explanation.

Ultimately, combined with the above, the study confirms hypothesis H4, i.e., RT mediates the relationship between PC and PPD. High PC directly reduces PPD, while high PC also reduces the occurrence and intensity of RT, thereby inhibiting the onset and development of PPD. This psychological model encourages healthcare providers, families, and psychologists to reduce the incidence of PPD by through enhancing PC and managing RT.

5. Conclusions

This study confirmed the effect of parenting competence on PPD through ruminative thinking among Chinese postpartum women. PC and RT are critical to PPD. The study revealed an association between PC, RT, and PPD. PC negatively predicted PPD and predicted PPD through RT. The effects of the two pathways were similar, i.e., the direct effect was 26.3%, whereas the indirect effect was 22.7%. These conclusions encourage psychologists, family members, and healthcare providers to pay close attention to changes in PC and RT among postpartum women and to provide timely education, counseling, and treatment. As this study was cross-sectional and focused on a sample of few hospitals, future studies could conduct a longitudinal study with a larger scope, which could help to draw richer and more reliable conclusions.

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