Research Paper

Assertiveness and Emotional Intelligence Predict Perinatal Depression

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ABSTRACT

Perinatal depression has been linked to some risk factors, including social-skill deficit and emotion-related challenges. However, studies investigating social skills and emotional issues in perinatal depression are scarce. The present study examined the predictive roles of Assertiveness and Emotional Intelligence in perinatal depression among 302 women drawn from Nigeria. The participants have a mean age of 29.14 years. Data were collected using the Assertive Behaviour Inventory-Assertive Behavior sub-scale, the Brief Emotional Intelligence Scale and Perinatal Depression Inventory. The study design was cross-sectional, and the results show that assertiveness ($\beta = -.12$, $t = -2.12$, $p<.05$) and emotional intelligence ($\beta = -.14$, $t = -2.50$, $p<.05$) negatively predicted Perinatal depression. The findings of this study identified Assertiveness and Emotional intelligence as factors to decrease Perinatal depression in women. Therefore, necessary training is given to pregnant women as part of pregnancy mental health care to boost their social and emotional astuteness.

Keywords: *Perinatal Depression, Assertiveness, Emotional Intelligence, Pregnancy, Women*

Perinatal mental health in pregnant women has been a worldwide public health concern. Perinatal mental health challenges affect up to 20% of women (Schwartz et al., 2021). Changes in women's hormone levels, especially during the reproductive cycle and pregnancy, may raise their chances of developing depression by twice as much as men (Maharlouei et al., 2020). The total prevalence of depression has been estimated to range between 20% and 31% (Fan et al., 2021). Low and middle-income countries experience higher rates of depression during pregnancy (Sheeba et al., 2019), with Nigeria having the highest rate at 24.5% (Thompson & Ajayi, 2016). The perinatal period, which marks the beginning of motherhood, is a susceptible time for mental health issues, such as perinatal depression (Langan & Goodbred, 2016). Even though affective instability is a challenge to perinatal women (e.g., Li, 2022), there is a dearth of studies investigating emotional factors in perinatal women.

Perinatal depression is defined in the Diagnostic and Statistical Manual of Mental Disorders-5th edition (DSM-5) as the occurrence of a major depressive episode during pregnancy

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(antenatal depression (AND) or following childbirth postpartum depression (PPD), with use of the "with peripartum onset" specifier for depressive disorders (onset during pregnancy or within four weeks after delivery) (American Psychiatric Association, 2013). The perinatal mental health of women is generally a neglected field. For example, Ayinde et al. (2018) reported that perinatal care administration and facilities are abysmal in many African countries. This work is necessary as it highlights some variables pertinent to women's perinatal mental health in a sub-Saharan African country.

Assertiveness is the ability to speak up confidently and effectively for one's good in a socially responsible manner. According to behavioural theories, unassertive responses are formed by the unfavourable outcomes of adopting assertive conduct during infancy and persist into maturity. These undesirable outcomes could be punishment, goal failure, or rejection (Salter, 2002; Wolpe, 1990). Assertiveness and past depression were such potent predictors of major depression in a study identifying its determinants that no other factor significantly increased the prediction of depression scores (Ball et al., 1994). According to a meta-analysis, women are more likely to show agreement and are less likely to be assertive (Leaper & Ayres, 2007). However, as reported by Immanuel (2022), women are more likely to report higher levels of assertiveness than men. Klier et al. (2001) identified a link between postpartum depression symptoms and assertiveness levels. Studies have shown a link between assertiveness and general depression (Wayan et al., 2022) and postpartum depression (Skowron et al., 2014). However, studies on assertiveness and perinatal depression are scarce, and further research is needed to understand the relationship between assertiveness and pregnancy-related depression fully. This study attempts to contribute data toward filling that gap. This study is necessary, giving reports (Adeponle et al., 2017; Onyeizugbo, 2003) that women in sub-Saharan Africa lack assertiveness – the ability/skill to express themselves, their needs and rights – which is a challenge to their well-being. In the current study, the authors hypothesized that assertiveness would be negatively associated with perinatal depression.

Emotional behaviour is vital in the life and well-being of every living human person. Managing one's emotions could make a difference between living or dying for pregnant women. According to Brackett et al. (2012), a postpartum mother may be better able to anticipate and accept contradictory emotions accompanying pregnancy and childbirth if she has high emotional intelligence (Brackett et al., 2012).

Emotional intelligence has been viewed and explored as two separate notions - a skill and a personality attribute (Rode, 2016). Emotional intelligence based on ability is considered a set of capabilities that may be improved, whereas trait-based emotional intelligence is a personality trait. A mother with weaker emotional intelligence may be confused by unexpected emotions and react by feeling guilt or shame, or she may focus more on negative emotions (Rode, 2016).

Çankaya & Ataş (2022) studied factors affecting postpartum depression in Turkish women, 268 mothers of infants between the ages of 1 and 12 months; 26.5% of the women had depression scores that were higher than the threshold (>13). Postpartum depression risk increased by 16% (F = 13.757, p 0.001) when individuals experienced emotional aggression, struggled with cognitive emotion management, and had low emotional intelligence traits. Some research reports (e.g., Çankaya & Ataş, 2022; Majdoleslami, 2017) link depression with low emotional intelligence.

Studies have shown that there is a link between emotional intelligence and general depression (Formica et al., 2018; Fu et al., 2020; Wayan et al., 2022), postpartum depression (Rode, 2016; Stylianides et al., 2016), and prenatal depression (Noh, 2014). However, studies on emotional intelligence, assertiveness and perinatal depression are scarce. Further research is needed to understand the relationship entirely. This study attempts to fill that gap. In the current study, the authors hypothesized that emotional intelligence would be negatively associated with perinatal depression.

METHOD

Participants

This study's participants comprised 302 pregnant women drawn from two (2) government hospitals in two different Local Government Areas in Enugu State, Nigeria. The hospitals include Poly Sub-District Hospital Asata, Enugu (PSDH) in Enugu North Local Government Area = 205 (67.9%), and Uwani Health Centre in Enugu South Local Government Area = 97 (32.1%). The Pregnant women fall within the age range of 19-50 years (M = 29.14, SD = 5.49). The participants' marital statuses are as follows: single = 20 (6.6%), married = 281 (93%) and divorced = 1 (0.3%). The participant's occupational statuses are as follows: student = 36 (11.9%), public servant = 84 (27.8%), business persons = 153 (50.7%) and others = 29 (9.6%). The ethnic groups of the participants are Igbo = 276 (91.4%), Yoruba = 6 (2%), Hausa = 3 (1%) and others 17 (5.6%). Educational qualifications were as follows: Primary = 12 (4.0%), secondary = 78 (25.8%), National Diploma = 75 (24.8%), Bachelor's Degree = 123 (40.7%) and Postgraduate Degree = 14 (4.6%). The participants were drawn from different religious denominations such as Catholic = 188 (62.3%), Protestant = 35 (11.6%), Pentecostal = 58 (19.2%) and others = 19 (6.3%).

Measures

- **Assertive Behaviour Inventory-Assertive Behavior (ABI-AB):** Assertiveness was measured using the Assertive Behavior Inventory-Assertive Behavior (Immanuel, 2019). The full-scale of the Assertive Behavior Inventory (ABI) is a 15-item measure of a person's ability to express one's needs, desires, and feelings honestly, without passivity and aggression. Each item is scored on a five-point scale, with responses ranging from "Never (1) to "Always (5). Even though the ABI has three sub-scales (assertive, aggressive and passive behaviours), the authors used the 5-item Assertive Behavior (AB) sub-scale for this study. Sample items include: "I compliment a person close to me for her/his beautiful appearance" and "I easily tell someone I love that I don't want sex". For the 5-item AB sub-scale, Immanuel (2019) reported a Cronbach's alpha coefficient of 0.74. For this study, Cronbach alpha = 0.65.
- **Brief Emotional Intelligence Scale (BEIS):** Emotional intelligence was measured using Davies et al. (2010) Brief Emotional Intelligence Scale (BEIS). It is a 10-item measure of appraisal, expression, control, and use of emotions in problem-solving. The BEIS is in line with the categories of adaptive cognitive talents that make up Emotional Intelligence, according to Mayer et al. (2004). Sample items include: "I can tell how people are feeling by listening to the tone of their voice" and "I use good moods to help myself keep trying in the face of obstacles". Each item is scored on a five-point scale, with responses ranging from "Strongly disagree (1) to "Strongly agree (5)". It has Cronbach's alpha of 0.67 (Davies et al., 2010). Even though the BEIS has five sub-scales, the composite score was used for data analysis in this work. Higher scores indicate higher perceived emotional intelligence. In this study sample, Cronbach's Alpha = 0.79.

- **Perinatal Depression Inventory (PDI):** Perinatal depression was measured using Brodey et al. (2016) Perinatal Depression Inventory. The PDI is a simple, brief, self-report instrument used to assess the severity of depression in various perinatal populations. The PDI Scale comprises 14 items. Responses are made on a 5-point Likert scale of Never (1) to Always (5). The scale score is determined by adding the item scores; higher scores denote more severe depressive symptoms. Sample items of the PDI include: "I had difficulty keeping my mind on what I was doing" and "I felt disappointed in myself". The developers validated the PDI on a large group of pregnant and postpartum women with varying degrees of depression in private and public obstetrics clinics. Brodey et al. (2016) reported that even though the PDI-14 used much fewer words to produce a more accurate assessment of severity, scores on the PDI-14 correlated strongly with the Edinburg Postpartum Depression Scale (EPDS), Patient Health Questionnaire (PHQ-9), and Beck Depression Inventory (BDI-II), indicating good evidence of convergent validity. The authors performed reliability analysis in this study sample, and a Cronbach's Alpha coefficient of 0.82 resulted.

Procedures

The authors got an ethical clearance from the State Ministry of Health for the study to proceed. The Nurses on duty assisted in identifying the qualified participants to give the scales to fill. The literate prenatal women that gave their informed consent completed the study scales. Out of 310 copies of the questionnaire forms distributed, 302 (97.4%) were adequately filled and used for analysis. Responses to the study scales were scored and analyzed with the SPSS 20.

Design/Statistics

The study adopted a cross-sectional design. It is a form of study design in which one gathers data from many people simultaneously (Thomas, 2020). The authors used hierarchical multiple regression for data analyses. Multiple regression analysis is a test that analyzes the amount of variance explained in a dependent variable by more than one predictor variables (Ross & Willson, 2017).

Table 1: Hierarchical multiple regression summary, showing assertiveness and emotional intelligence predicting perinatal depression

Predictors	Step 1				Step 2			
	B	**SE**	**β**	**T**	**B**	**SE**	**β**	**t**
Assertiveness	-.25	.12	-.12	-2.12[*]	-.24	.12	-.12	-2.01*
Emotional Intelligence					-.19	.08	-.14	-2.50[*]
R^2		.02				.04		
ΔR^2		.02				.02		
F		4.50 (1,300)[*]				5.41 (2,299)[**]		
ΔF		4.50 (1, 300)[*]				6.25 (2,299)[**]		

*Note: *p<.05; **p<.01.*

Table 1 displays a 2-step multiple regression model for assertiveness and emotional intelligence predicting perinatal depression, which shows that assertiveness (β = -.12, t = -2.12, p<.05) was significant in negatively predicting perinatal depression, suggesting that higher assertiveness is associated with lower perinatal depressive symptoms. The B showed

that for each one-unit rise in assertiveness, perinatal depression decreased by -.25 units. The model was significant, $F(1, 300) = 4.50$, $p < .05$, $R2\Delta = .02$. This indicates that assertiveness explains 2% of the variance in perinatal depression among pregnant women.

In the second step, emotional intelligence ($\beta = -.14$, $t = -2.50$, $p<.05$) significantly predicted perinatal depression, suggesting that higher emotional intelligence is associated with lower perinatal depressive symptoms. The B showed that for each one-unit rise in emotional intelligence, perinatal depression decreased by -.19 units. The model was significant, $F(2,299) = 6.25$, $p < .01$, $R2\Delta = .02$; this indicates that emotional intelligence explains 2% of the variance in perinatal depression among pregnant women.

DISCUSSION

The findings of this study show that assertiveness is related negatively to perinatal depression. This study examined the role of assertiveness in perinatal depression. Other scholars report that assertiveness is related to depression (Wayan et al., 2022) and postpartum depression (Skowron et al., 2014). The current finding may be understood in that being assertive can improve how pregnant women express their demands and concerns to achieve health-promoting outcomes. Bottling up feelings can result in a build-up of anger, grudges and stress, resulting in sadness. On the other hand, expressing one's genuine concerns effectively has a cathartic effect.

Further, the findings of this study show that emotional intelligence is related to perinatal depression. This study examined the association between emotional intelligence and perinatal depression. This finding is similar to previous studies on other manifestations of depression (e.g., Çankaya & Ataş, 2022; Majdoleslami, 2017), which reported that emotional intelligence was associated with lower depression among pregnant women. This finding may be understood because the capacity to control and manage emotions properly is a critical component of emotional intelligence. Women who are less emotionally intelligent may find it more challenging to manage their strong feelings throughout pregnancy and after giving birth, which is antithetical to their mental health. Emotional astuteness enables one to know what one is feeling, when feeling overwhelmed, and when to rest. It also allows one to understand how to navigate the complex and rough terrain of intimate and social relationships to one's advantage with better outcomes for all concerned.

Implications of the Findings

The study provided empirical evidence for the degree of relation between pregnant women's assertiveness and emotional intelligence in perinatal depression. Higher assertiveness is associated with lower perinatal depression. Many African women, especially married women, carry lots of burdens. They have pregnancies, cater to their husbands and children's needs, take on loads of domestic responsibility, and in most cases, go to work, and carry on with businesses. In the midst of all these, many of the women find it difficult to speak out assertively. This study is corroborated by Adeponle et al. (2017), which reported that women participants lack assertiveness – the ability/skill to express themselves, their needs and their rights. This study calls for social skills training, especially assertiveness training, as part of antenatal care of pregnant women, especially in developing countries. Expressing oneself effectively, rejecting unreasonable requests, letting people know when they have reached their breaking point, and the like could make a difference between flourishing and languishing, as well as between life and death.

Higher emotional intelligence is shown to be associated with lower perinatal depression. Because of this, healthcare management personnel should coach pregnant women on the vicissitudes of emotion management. Those with low emotional aptitude could be trained to enhance their emotional intelligence. It is possible because it has been observed that emotional intelligence can be trained (Brackett et al., 2012).

Limitations and Suggestions for Future Studies
Research on women in the perinatal stage of pregnancy is a neglected area. This research report focused only on assertiveness and emotional intelligence related to perinatal depression. Subsequent work with women in the perinatal stage of pregnancy could investigate other variables associated with perinatal depression, such as social support, socioeconomic status, spirituality, and personality. Again, this report focused on depression, which is pathology. Subsequent work with women in the perinatal stage of pregnancy could investigate the same or more variables that contribute to the positive mental health of women in the perinatal stage of pregnancy. It is not enough to point out the reality of perinatal depression; it is vital to highlight factors that can enhance the well-being of women in the perinatal stage of pregnancy.

CONCLUSION
The authors examined the relationship between assertiveness and emotional intelligence in perinatal depression. Results showed that assertiveness and emotional intelligence were negative predictors of perinatal depression. The study suggests that interventions like assertiveness and emotional intelligence training may aid pregnant women in enhancing their mental health.

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