

Postpartum Depression Among Breastfeeding Teenagers in Kiambu County, Kenya: Impact of Psychological Constructs

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Abstract- Teenage pregnancies and parenting are still major global concerns. In developing regions, there were reportedly 21 million teenage girls aged between 15 and 19 years who conceived in 2016, with 12 million of those pregnancies ending in live births. This study investigated the influence of psychological constructs on postpartum depression among breastfeeding teenagers in Kiambu County, Kenya. The objectives were; to find out the effect of life satisfaction on postpartum depression, to find the influence of family support on postpartum and to find the effect of self-awareness on postpartum depression. The study was guided by the hormone and cognitive theories. The study's design was quantitative in nature. The study employed a cross-sectional research design. The target population was 10,382 teenage mothers who are currently breastfeeding. Participants were selected using random sampling to get a sample size of 385 teenage mothers who are breastfeeding. To gather primary data for this project, questionnaires were used. The study concluded that Based on the findings, it shows that life satisfaction has a significant influence on postpartum depression among breastfeeding teenagers. Higher levels of life satisfaction, including satisfaction in marriage/relationship, family treatment, societal treatment, and overall quality of life, are associated with a lower risk of postpartum depression. The study findings indicate that a strong family support plays a crucial role in reducing the risk of postpartum depression among breastfeeding teenagers. Positive family support, including emotional, practical and paternal support, is associated with lower levels of postpartum depression. The study findings indicate that higher levels of self-awareness contribute to a reduced risk of postpartum depression among breastfeeding teenagers. Factors such as confidence in handling breastfeeding, humility in managing their situation, mental stability, and self-esteem play a significant role in promoting positive mental health outcomes. The study recommendations were to promote programs and interventions that enhance life satisfaction among breastfeeding teenagers. This can be achieved through counseling, support groups and educational initiatives that focus on improving relationships, building self-esteem, and fostering a positive outlook on life. Provide them with tools and techniques to enhance self-reflection, self-compassion and emotional regulation. By promoting self-awareness from an early age, teenagers can develop healthy coping mechanisms and a strong sense of self before entering motherhood.

Index Terms- Adolescent Mothers, Post Natal Depression, Kenya Demographic Health Survey and Postpartum Depression

I. INTRODUCTION

Teenage pregnancies and parenting are still major global concerns. In developing regions, there were reportedly 21 million girls aged between 15 and 19 years who conceived in 2016, with 12 million of those pregnancies ending in live births. According to the World Health Organization survey, women between ages 15 and 19 contribute 49 of every 1000 births, with greater rates noted in sub-Saharan Africa (Du Preez, Manyathi, Botha and Rabie, 2019).

A devastating mental disease, postpartum depression affects between 5% and 60.8 percent of women globally (Xavier Benoit & Brown, 2018). The 20 percent of maternal deaths that occur after giving birth that are caused by feelings of hopelessness are life-threatening and can result in suicide. Additionally, problems like worry about hurting the infant (36%) and having a weak relationship to the child (34%), as well as, in extreme situations, child suicide attempts, have been observed (Xavier, Benoit & Brown, 2018).

Within the first 14 weeks after giving birth, postpartum depression (PPD) affects about 13% of women. Post-natal depression affects mothers immediately, poses long-term dangers to their mental health in the future, and adversely affects the cognitive, social, and physical growth of their offspring. Additionally, post-natal depression has significant financial implications in terms of what it costs the hospital system and the productivity lost as a result of mother absences from work, early retirement, and long-term unemployment (Stamou, García-Palacios and Botella, 2018).

It's noted that 50.8 percent of infants are breastfed, while 11.8 percent of the mothers who breastfeed showed signs of postpartum depression (Silva et al., 2017). Findings show that there is a higher likelihood that a mother would not exclusively breastfeed her child (OR = 1.67; p 0.001), that the subject would be younger (OR = 1.89; p 0.001), that the subject would have received benefits from the Bolsa Familia Program (OR = 1.25; p = 0.016), and that the subject would have begun antenatal care later in pregnancy (OR = 2.14; The practice of exclusive breastfeeding has declined as a result of postpartum depression.

Adolescent mothers may find this time and its obligations particularly challenging. In the early stages of adolescence, attempts are made to forge an identity, to grow into an individual, and to assert emotional independence from the family while maintaining ties. However, young mothers must also balance their other responsibilities, including those of being a daughter, student, spouse, and adolescent or teen. They experience role conflict, limitations, and confusion as a result. Adolescent mothers also face the challenging and stressful process of building confidence and a belief in their capacity to parent successfully. For these people, who might be less equipped to handle the financial obligations and interpersonal difficulties of parenting, the mental suffering related to the adjustment to parenthood is magnified (Erfina, Widyawati, McKenna, Reisenhofer and Ismail, 2019).

With roughly one in seven women receiving a diagnosis of the condition within the first year of giving birth, postpartum depression (PPD) is on the rise throughout the world. PPD is defined as depressive episodes and mood fluctuations that start as soon as four weeks after delivery or as an extension of prenatal depression. Devastating consequences include less affectionate relationships between mother and child, which may put the mother at risk for persistent depression and have a severe impact on the infant's growth and development. Since the frequency of PPD is higher in lower-middle-income nations like India, postpartum depression has been proven to have an uneven global prevalence. In order to better future interventions in India, this study will critically assess the biological, sociological, psychological, and social risks related to PPD (Erfina, Widyawati, McKenna, Reisenhofer and Ismail, 2019).

In a study done in Indonesia, it was noted that in a total of 520 adolescent mothers the average age was 17.85 ± 1.22 years old. PPD was 60.58 percent prevalent (95 percent CI: 56.29-64.70) according to Wulan Rahmadhani (2020). PPD was statistically significantly correlated with dissatisfaction with newborn gender (Adj OR: 2.31 95 percent CI: 1.59-2.34), father's predicted baby gender (Adj OR: 1.92 95 percent CI: 1.29-2.83), and mother's age (Adj OR: 1.81 95 percent CI: 1.23-2.64). In conclusion, teenage moms in Central Java, Indonesia, frequently had postpartum depression. Additionally, it was suggested that among adolescent moms, potential risk factors for PPD included the baby's gender.

A study done in Zimbabwe found out that there is a significant prevalence of postpartum depression (PPD) among adolescent mothers (ADLM) (13.0%) than among adult mothers (ADM) (7.2%) ($p < 0.001$) in Mashonaland Central and Bulawayo provinces of Zimbabwe according to Mbawa, Vidmar, Chingwaru and Chingwaru (2018). PPD was demonstrated to substantially correlate with the following among ADLM ($p < 0.05$): (i) being dumped by a spouse, (ii) not having access to necessities for children, (iii) having strained family ties, (iv) feeling insecure in society, and (v) experiencing prenatal depression (vii) a lack of knowledge about contraception, (viii) a bad perception of adolescent pregnancies, (ix) the absence of both parents while the child is growing up, and (x) a lack of positive family ties while the child is growing up [OR > 1, 95 percent CI; $p < 0.05$].

In Uganda, it was noted that while there is clear evidence of affecting child morbidity and mortality, the factors associated with PPD in adolescence are inconclusive and limited according to Atuhaire and Cumber (2018). In the first year of life, maternal care interruptions are more dangerous because newborns need more attention and are more vulnerable to their mothers' depressive states. The condition of mothers' mental health is still mainly ignored in Uganda and other underdeveloped nations. Since postpartum depression has not been given the attention it deserves or been properly recognized in Ugandan hospitals, little is known about the dangers it poses to teenagers in that country.

Teenagers in Kenya who were pregnant or already parents experienced a variety of challenges, including social stigma, a lack of emotional support, limited access to healthcare, and pressures related to adjusting to a new way of life. We focused on a few practical stress-reduction techniques and coping processes that these teenagers were considering. Mothers are the main sources of social support for adolescents who are expecting or already have children. The estimated prevalence rate of teenage pregnancies in Kenya is 18%, with 378,397 adolescent girls between the ages of 10 and 19 presenting to medical facilities between July 2016 and June 2017 in all 47 counties (Achieng, 2018). Recent statistics from the Kenya Health Information System from the Ministry of Health show that hundreds of young females have become pregnant in the past 1.5 years in the populous Kiambu County's Prenatal care facilities. A total of 5,548 women sought prenatal treatment from January to June 2020. The startling numbers show that 378 girls between the ages of 10 and 14 attended various health facilities to receive prenatal care. They were presented at the launch of the count Resilience and Recovery Program in Ruiru. 100 girls in the same age range sought antenatal treatment from various health facilities between January and June of this year. 13,148 girls between the ages of 15 and 19 visited hospitals within the county health facilities (Gakinya, Chui, and Muiru, 2022). It is against this background that the study seeks to investigate the influence of psychological constructs on postpartum depression among breastfeeding teenagers in Kiambu County, Kenya.

II. RESEARCH METHOD

The study's design was cross-sectional and quantitative in nature. In a nutshell, a cross sectional analysis can be thought of as a moment in time snapshot of a certain group of people, or what is happening right now. The design is observational in nature and is utilized to draw conclusions regarding a potential relationship. According to Kate et al. (2006), cross sectional studies are typically carried out to determine the prevalence of the desired result for a certain group.

The design is typically employed when the goal of the research is descriptive, such as when it takes the form of a survey and aims to describe a population or subgroup within it in relation to an outcome and a number of risk variables. In order to determine the prevalence of a result of interest in a population or subgroup and to determine the relationships between risk variables and the outcome of interest, cross sectional designs are used (Kate et al., 2006).

The independent variables are; life satisfaction, family support, and self-awareness. On the hand, the dependent variable of the study is postpartum depression among breastfeeding teenagers. Extraneous variables are religious commitment, medication and age at giving birth.

Kiambu County was location selected for this study. The county is one of the largest populated counties in Kenya having a population of more than 2,417,735 with majority being in the youthful backed including teenagers. The county has a lot of influence from the neighboring Nairobi County which serves as the capital city of Kenya. The county is largely agricultural. However, it is emerging as a residential haven for people working in Nairobi. Owing to the high population, the number of births recorded in the county can easily compare to Nairobi county. Of recent, there has been public outcry due to high incidences of teenage pregnancies.

The target population in this study will be all teenage girls who have breastfeeding infants. This teenage mothers are experiencing social and economic challenges that are making them vulnerable to postpartum depression. According to Kenya Demographic Health Survey KDHS (2022), there are 10,382 teenage girls in Kiambu County who are currently breastfeeding as distributed in Table 1. Below.

Constituency	Number of breastfeeding mothers
Kiambu	1300
Juja	950
Gatundu South	765
Gatundu North	705
Kiambaa	830
Githunguri	770
Thika	970
Ruiru	865
Kikuyu	986
Limuru	785
Lari	721
Kabete	735
Total	10,382

All postpartum teenagers with infants aged 0–6 months who will be informed for consent and do not have a sick kid at the time of the study will be given an equal opportunity to participate. Simple random sampling was used in the study to choose study participants from the county. The calculation of the sample size was based on Yamane's 1967 formula (Hansen and Hurwits, 1943) where;

$$n = \frac{N}{1 + N(e^2)}$$

Where:

N = Population Size

e = Precision rate

n = Sample size

$$n = \frac{10382}{1 + 10382(0.05^2)} = 385$$

Sample size for each constituency (n) = size of entire sample (385) / population size (10,382) * Number of breastfeeding mothers per constituency. The sample size distribution is shown in Table 2.

Constituency	Target Population (N)	Sample Size (n)
Kiambu	1300	48
Juja	950	35
Gatundu South	765	28
Gatundu North	705	26
Kiambaa	830	31
Githunguri	770	29
Thika	970	36
Ruiru	865	32
Kikuyu	986	37
Limuru	785	29
Lari	721	27
Kabete	735	27
Total	10,382	385

The researcher used study assistants to help administer the questionnaire to the respondents. This made it easier to get a good return ratio. The collection of data lasted for two weeks.

Both descriptive and inferential statistics such as frequencies, percentage, means and Pearson correlations were used to analyze the quantitative data gathered for this investigation. Structural equation modelling (SEM) analysis was estimated to determine the level and quality of correlations between life satisfaction, family support, self-awareness and postpartum depression (PPD) among the breastfeeding teenagers in Kiambu county. The correlation analysis of the psychological constructs and PPD were revealed the association of the variables. Further, a 95% confidence level was used to test the hypotheses.

Ethical considerations were observed throughout the study by getting voluntary informed consent from all the participants. Privacy and confidentiality was ensured by maintaining anonymity of the participants.

III. DISCUSSIONS

Researchers Agustinho Cardillo et al. (2016) investigated the possibility of identifying depression symptoms in teenage moms during the postpartum period. Within cross-sectional observational research of 72 teenage mothers (HAM-D), both the Edinburgh Postnatal Depression Scale (EPDS) and the Hamilton Rating Scale for Depression were used as assessment tools. According to the EPDS, 20.8% of the people surveyed had symptoms consistent with depression. The questions concerning feelings of anxiety, guilt, and suicidal ideation were the ones that were asked the most often. We focused mostly on the emotions of guilt (60%) and the notion that life isn't worth living (40%) while conducting this study. Seventy-three point three percent of persons denied the fact that they were sad. The results emphasize how important it is to have a specific prenatal care plan when it is feasible to identify vulnerabilities, psychosocial variables, and the dynamics of the family. In addition to this, they stress how essential it is to include monitoring of depressed symptoms in the anamnesis and to make use of this information for attention networks, references, and counter-references.

During outpatient sessions, the capacity to recognize signs of depression in both the mother and the father is crucial to the healthy functioning of the family as a whole, as well as to the socialization and intellectual development of the infant. Professionals in the field of pediatrics need to be aware of and prepared to respond to the unique psychological, monetary, educational, and medical needs of adolescent mothers. It's possible that evidence-based hospital procedures might increase the percentage of moms who are able to effectively start breastfeeding.

There was a statistically significant link between PPD risk and age, educational level, relational problems with partners and families, difficulties with sexual activity during the postnatal period, and assertiveness in parental decision-making ($P = .05$). At the 6-month and 1-year follow-ups, the scores of the risk group on the Edinburgh Postnatal Depression Scale were the same. However, at the 1-year follow-up, the scores reduced. In a research including Arabian moms, Badr et al. (2021) discovered that depressed cognitions were substantially connected with resourcefulness, life satisfaction, and quality of life. The study was conducted in Saudi Arabia. The personal prosperity factor (PPF) as well as life satisfaction were shown to have substantial correlations with these factors, as were resourcefulness, quality of life, and life satisfaction. The outcomes of this research brought to light the need of doing early screenings for postpartum psychosis and depressive symptoms in postpartum women.

In addition to this, the research demonstrated that marital dissatisfaction during pregnancy was one of the most accurate predictors of postpartum depression. This research highlights how important the quality of the marital connection during pregnancy is in predicting the likelihood of postpartum depression after the baby is born. This finding highlights how important it is to address any marital problems and provide adequate assistance to couples during the prenatal period in order to lessen the chance of postpartum depression. However, regarding breastfeeding, the research conducted by Ahlqvist-Bjorkroth et al. (2016) did not find any evidence of a correlation between the beginning or exclusivity of breastfeeding and the presence of depressive symptoms at the family level. Instead, the findings of the study revealed that individual mother experiences were more meaningful in predicting breastfeeding success than a collective tally of symptoms at the family level. This suggests that characteristics unique to each woman, such as her own breastfeeding experience, expertise, and support, have a more important impact in the success or difficulty of breastfeeding than the general depressive symptoms experienced by the family as a whole.

IV. CONCLUSION AND RECOMMENDATIONS

Conclusion

According to the findings of the survey, the vast majority of respondents expressed contentment with their current marriage or relationship, the treatment they get from their families, and the treatment they receive from society. In addition, the vast majority of respondents said that they are content with the kind of life they now lead. According to these results, greater levels of life satisfaction may have a favorable impact on lowering the incidence of postpartum depression among breastfeeding teenagers in Kiambu County, Kenya.

Most of the respondents said that they were in receipt of good family support, help that was essential from their families, and support from the fathers of their children. They also said that their families show them affection and consider them to be a member of the family unit when they interact with the youngsters. According to these results, having a solid support system within the family may have a major role in lowering the risk of postpartum depression among breastfeeding teenagers living in Kiambu County.

Finally, most mothers who breastfed their children reported feeling confident in their capacity to nurse their children without encountering any difficulties, stable in their mental state with respect to breastfeeding, and with greater levels of self-esteem as a result of breastfeeding their children. According to these results, increased levels of self-awareness may have a role in lowering the incidence of postpartum depression among breastfeeding teenagers in Kiambu County.

Recommendation

1. Promote programs and interventions that enhance life satisfaction among breastfeeding teenagers. This can be achieved through counseling, support groups, and educational initiatives that focus on improving relationships, building self-esteem, and fostering a positive outlook on life. Encourage the involvement of partners and families in supporting the well-being of breastfeeding teenagers. Providing education and resources to families on how to offer positive support can contribute to higher levels of life satisfaction for young mothers. Develop community-based initiatives that address societal stigma and discrimination towards breastfeeding teenagers. Promoting acceptance and inclusivity in the community can enhance life satisfaction and reduce the risk of postpartum depression.

2. Enhance awareness among families about the importance of supporting breastfeeding teenagers during the postpartum period. Educate family members about the challenges faced by young mothers and provide information on how they can provide effective support. Establish support groups or counseling services specifically designed for families of breastfeeding teenagers. These platforms can offer guidance and resources to family members, allowing them to better understand and respond to the needs of young mothers. Collaborate with healthcare providers to include family members in postpartum care and education. Involve families in breastfeeding education sessions and provide opportunities for them to learn about postpartum depression and how to support their teenage relatives effectively.

3. Incorporate self-awareness training into prenatal and postpartum education programs for teenage mothers. Provide them with tools and techniques to enhance self-reflection, self-compassion, and emotional regulation. Integrate mental health support services within breastfeeding support programs. Offer counseling or therapy sessions that focus on building self-awareness and coping skills to prevent or manage postpartum depression symptoms. Encourage the inclusion of self-awareness and mental health discussions in school curricula. By promoting self-awareness from an early age, teenagers can develop healthy coping mechanisms and a strong sense of self before entering motherhood.

This study has opened possible areas of interest for further studies. Further studies concerning practical implications of postpartum depression need to be explored by researchers interested in this field.

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