

MELISSA BURT-MILLER | CRITICAL THINKING ASSESSMENT PAPER: THE NEGATIVE EFFECTS OF THE MOTHER'S EMOTIONAL STATE ON FETUS

Abstract

Pregnancy can be one of the happiest and most precious times in the lives of families and couples who have been anticipating the moment when they would conceive, while on the other hand, pregnancy can be a time of regret, stress, and fluctuating emotions, as expecting mothers and families ponder on the next chapter of their life. Unfortunately, with stress and other high emotions during pregnancy, an increasing body of research has confirmed that the mother's emotional state can have consequential effects on the fetus during pregnancy, as well as, during the development stages of the fetus's life.

This critical thinking assessment paper entitled "The Negative Effects of the Mother's Emotional State on Fetus" will explore and critically analyze two peer-reviewed journals by the authors; Semeia et al., (2023) and Schetter & Tanner, (2012) which outline the "Impact of maternal emotional state during pregnancy on fetal heart rate variability", and "Anxiety, depression, and stress in pregnancy: Implications for mothers, children, research, and practice", providing evidence that the mother's emotional state can indeed negatively affect the fetus.

Keywords: stress, anxiety, depression, pregnancy, prenatal stress, fetal

Brief Overview of Peer-Reviews

Anxiety, depression, and stress during pregnancy can result in adverse outcomes for both the mother and her unborn child. Schetter & Tanner, (2012) in their peer-reviewed journal; "Anxiety, depression and stress in pregnancy..." theorized that anxiety in pregnancy is linked to shorter gestational periods and has adverse implications for fetal neurodevelopment and child outcomes (Schetter & Tanner, 2012). Additionally, Schetter & Tanner, (2012) underscores that chronic stress and depressive symptoms experienced by mothers during pregnancy are related to

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low birth weight (LBR) in infants and preterm birth (PTB) with a ramification for infant development. Similar to Schetter & Tanner's study, Semeia's research on the "Impact of maternal emotional state during pregnancy...", confirmed that the fetus is being negatively impacted by the mother's emotional state. In their journal, Semeia and his colleagues noted that the fetal autonomic nervous system (ANS) is believed to be negatively impacted by the mother's emotional state (Semeia et al., 2023). Semeia's study also assessed how depression, anxiety, and stress during pregnancy were related to fetal heart rate variability (FHRV) (Semeia et al., 2023).

Findings

During Schetter & Tanner's research, their findings revealed that a significant number of women who experience major life events such as the death of a family were at a higher risk of preterm birth (PTB), especially when the event occurred during early pregnancy (Schetter & Tanner, 2012). Schetter & Tanner also found that studies on catastrophic events such as natural disasters also had a considerable impact on gestational age at birth or preterm birth (PTB), which is the same with mothers who experience poverty and other neighborhood stressors (Schetter & Tanner, 2012).

An interesting revelation in the peer-review of Schetter & Tanner, (2012) revealed that a growing number of studies have confirmed that racism and discrimination "prospectively predict birth weight, particularly in African American women" (Schetter & Tanner, 2012). This means chronic stressors are associated with the risk of low birth weight in the fetus.

On another note, Schetter & Tanner's studies showed that maternal stress, depression, and anxiety in pregnancy contribute to adverse neurodevelopmental outcomes for the fetus through a process known as 'fetal programming' (Schetter & Tanner, 2012). "Fetal programming is the

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concept that the environment in utero can affect the development of the fetus with a permanent effect on the phenotype” (Glover & O’Connor, 2006). That is, exposures during a particular period in brain development may set or 'programme' the brain and body to be, for example, more sensitive to stress (Glover & O’Connor, 2006).

Utilizing animal model research, Schetter & Tanner state that maternal distress negatively impacts long-term learning, motor development, and behavior in offspring. This is due to effects on the development of the fetal nervous system and changes in the operation of the maternal and fetal hypothalamic pituitary adrenal (HPA) (Schetter & Tanner, 2012). Therefore, the mother’s emotional state, whether through stress exposure, or affective states in her pregnancy can lead to substantial consequences for the fetus's development and health, resulting in effects on attention regulation, cognitive and motor development, and behavioral and emotional problems during their first year of life or as they progress to adolescents (Schetter & Tanner, 2012).

Semeia and his colleagues on the other hand recorded the heart rate variability (HRV) from 32 healthy fetuses between 32 and 38 weeks of gestational age. They also evaluated the maternal emotional state using standardized questionnaires about anxiety, depression, and stress to determine whether or not the mother’s emotional state during pregnancy impacted the fetal heart rate variability. Their findings showed that a mother’s emotional state in the prenatal period can affect fetal and infant autonomic nervous system (ANS) development, and depressive and anxiety symptoms seem to affect the fetal heart rate variability. (Semeia et al., 2023).

By analyzing both peer reviews, the conclusion can be drawn that the mother’s emotional state adversely affects the fetus. This is evident in the findings presented in the research conducted by Semeia and his colleagues and Schetter & Tanner and is similar to the findings found in research that explores the topic of maternal stress. In addition, two researchers; Kinsella

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& Monk, have also called attention to the impact of maternal stress, depression, and anxiety on fetal neurobehavioral development adding to the supporting evidence of the negative effect of the mother's emotional state on the fetus. In their research, Kinsella & Monk found that similar to Schetter & Tanner, pregnant women's exposure to various traumatic and chronic stressors including death can significantly alter the child's neurodevelopment, which can lead to autism, affective disorder, and reduced cognitive ability (Kinsella & Monk, 2009). Correspondingly, Kinsella & Monk, (2009) found that the impact of maternal anxiety and depression during pregnancy found to spread into childhood and adolescence, affecting the hypothalamic-pituitary-adrenal axis (HPA) which leads to attention deficit hyperactivity disorder (ADHD). These findings validate Schetter & Tanner's finding in their research.

Strength and Limitations of the Evidence

The studies carried out by both Semeia et al., (2023) and Schetter & Tanner, (2012), have provided substantial evidence that anxiety, depression, and stress in pregnancy are risk factors for adversative outcomes for the fetus. The evidence provided is considered credible and accurate as they yield consistent and similar results to other research on the effects of the mother's emotional state on the fetus. The supporting pieces of evidence are also based on qualitative research study designs that were random and non-randomized, using standardized questionnaires and tests to predict cause and effect. A limitation that was noticeable in the peer reviews was that the age group of the women being studied was not specified, which made the sample size very broad.

Social Work Practice and the Findings

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The social work profession unlike any other is a helping profession that is multifaceted and aims to understand people in the context of their social environments as they navigate through adversities, social challenges, and economic and environmental issues. A core value of social work is the mission to “enhance human well-being and meet the basic human needs of all people, with particular attention to the needs of those who are vulnerable, oppressed, and living in poverty” (Birkenmaier et al., 2020) (National Association of Social Workers [NASW], Code of Ethics, 2017).

As I reflected on the findings and how they inform social work practice, I recognize that many issues and factors impact the life of an individual daily. This helps me as a social worker to be cognizant of the fact that the biological, psychological, and social dimensions of a person's life must be evaluated to better assist them. As the findings in the peer reviews showed, maternal stress, anxiety, and depression are a result of many different factors, such as daily life hassles, environmental issues, etc. Social workers are to address the client's problem through a research-informed lens to ensure that we develop new knowledge and understanding of the intricate human behaviors and social environment that impact our clients' lives and problems.

In addition to developing new knowledge and understanding of our client's situation, the findings from the peer reviews also create an avenue for psychoeducation, providing the social workers with information that can be useful when working with a client who is pregnant and or experiencing maternal stress, depression, or anxiety.

Guidelines

In the profession of social work, social workers must be able to recognize the central importance of human relationships. As part of the code of ethics, we are to understand that

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relationship between and among people is necessary for change, and as such, social workers must engage people as partners in the helping process (National Association of Social Workers [NASW], Code of Ethics, 2017). With this in mind, the guidelines below are what I believe should be implemented when working with clients who are pregnant and or experiencing maternal stress, anxiety, and depression:

- Help mothers develop an awareness of the importance of maintaining a healthy emotional state during pregnancy by discussing the psychological, and social hazards that can contribute to unstable emotions during pregnancy.
- Encourage expecting mothers to join a women's support group, for example, the Motherhood Center of New York, to engage in programs and activities that help them overcome the anxiety and stress that they may experience during pregnancy.
- Create a safe environment for mothers to express their concerns and healthily share their emotions to develop the practice of emotion-focused therapy.
- Teach expecting mothers coping skills and practices to combat negative emotions.

Conclusion

Based on the findings presented in this critical thinking assessment of the peer reviews, it is evident that the mother's emotional state negatively impacts the fetus. It is also evident that the mother's emotional state can be detrimental to fetal health causing low birth weight (LBW), preterm birth (PTB), shorter gestational period, an adverse implication for fetal neurodevelopment, and fetal heart rate variability. Having recognized this, social workers must psycho-educate expecting mothers about the dangers of unstable emotions on their unborn child. In closing, I want to acknowledge that I accept and affirm the conclusion presented in the peer reviews. The question that I would like to ask is where do we show up as social workers when

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faced with women who are pregnant and are unstable emotionally? Do we show up in the communities? Do we show up for the mother and unborn child? Or do we show up in social relationships to encourage support?

REFERENCES:

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About. NASW, National Association of Social Workers. (n.d.). Retrieved March 7, 2023, from <https://www.socialworkers.org/About/Ethics/Code-of-Ethics/Code-of-Ethics-English>

Birkenmaier, J., Berg-Weger, M., & Adams, D. (2020). *The practice of generalist social work*. Routledge.

Glover, V., & O'Connor, T. (2006). Maternal anxiety: its effect on the fetus and the child. (Cover story). *British Journal of Midwifery*, 14(11), 663–667. <https://doi-org.ezproxy.nyack.edu/10.12968/bjom.2006.14.11.22255>

Kinsella, M. T., & Monk, C. (2009). Impact of Maternal Stress, Depression & Anxiety on Fetal Neurobehavioral Development. *Clinical obstetrics and gynecology*, 52(3), 425. <https://doi.org/10.1097/GRF.0b013e3181b52df1>

Schetter, C. D., & Tanner, L. (2012). Anxiety, depression, and stress in pregnancy: Implications for mothers, children, research, and practice. *Current opinion in psychiatry*, 25(2), 141. <https://doi.org/10.1097/YCO.0b013e3283503680>

Semeia, L., Bauer, I., Sippel, K., Hartkopf, J., Schaal, N. K., & Preissl, H. (2023). Impact of maternal emotional state during pregnancy on fetal heart rate variability. *Comprehensive Psychoneuroendocrinology*, 14, 100181. <https://doi.org/10.1016/j.cpniec.2023.100181>