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The Impact of Anxiety on Birth Perception Among Postpartum Hispanic Adolescents

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THE IMPACT OF ANXIETY ON BIRTH PERCEPTION AMONG POSTPARTUM HISPANIC ADOLESCENTS

by

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ABSTRACT

THE IMPACT OF ANXIETY ON BIRTH PERCEPTION AMONG POSTPARTUM HISPANIC ADOLESCENTS

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Anxiety is a common mental health disorder in the postpartum population that may severely impact birth perception. Using a secondary analysis, this descriptive study explored the contribution of anxiety and two confounding variables, unplanned pregnancy and parity, on the Hispanic adolescents' birth perception. Results from 183 adolescents, 13 -19 years of age, revealed that parity and a self-rating of feeling anxious correlated with a negative birth perception. Unplanned pregnancy had no significant correlation on birth perception in this population. We suggest that certain risk factors may place adolescents at risk for experiencing a negative birth perception. Results of this study support the need for assessments of adolescent anxiety, especially among primiparous teens. High birthrates for

Hispanic adolescents may suggest increased vulnerability; thus, the need for additional research within this racial-ethnic group.

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CHAPTER 1

INTRODUCTION

1.1 Statement of Purpose and Research Question

In the United States (US), 3,747,540 babies were born in 2019 with about 4.6% to women under 19 years of age (Centers for Disease Control and Prevention, CDC, 2021). The birth experience for these younger mothers is relatively unexplored. Published works, primarily among adults, however, have identified many risk factors contributing to how the birth experience may be perceived, including a history of poor mental health (Saxbe et al., 2018). Anxiety is a common mental health issue affecting about 23% of women during pregnancy and 18% postpartum (Dennis et al., 2017). At least 10.8% of pregnant women are affected by generalized anxiety disorder (Araji et al., 2020). For adolescents between the ages of 13 and 18, the most common mental health disorder by lifetime prevalence is anxiety (Ghandour et al., 2019). It has been suggested that childbearing adolescents may be more vulnerable to display symptoms of anxiety than older mothers (Laurenzi et al., 2020); thus, a positive perception of the birth experience may be threatened. Hispanic women may also be more likely to report high anxiety levels because of higher birthrates than other minority groups (Potochnick & Perreira, 2010). Silveira et al. (2013) noted that Hispanic women frequently experienced high levels of psychosocial stress during pregnancy leading to higher prenatal anxiety levels.

With a recognized continuation of prenatal anxiety into the postpartum period, it may be suggested that the adolescent's birth perception may be impacted, but limited

research, especially for Hispanic adolescents, generates the need for additional research (Biaggi et al., 2015). Therefore, this study will address the following research questions: 1) What is the prevalence of anxiety among early postpartum Hispanic adolescents? 2) Do parity and unplanned pregnancy associate with maternal anxiety among early postpartum Hispanic adolescents? 3) Does maternal anxiety predict a negative birth perception for Hispanic adolescents?

CHAPTER 2

LITERATURE REVIEW

2.1 Anxiety: Prevalence and Patterns of Occurrence

Childbirth is a well-established stressor related to a high incidence of anxiety disorder (Polachek et al., 2014). Further, the severity of anxiety during pregnancy has been recognized to be a strong indicator of the intensity of anxiety the woman might experience in the postpartum period (Araji et al., 2020). Ali (2018) noted about 6.1% to 27.9% of women experienced postpartum anxiety for the first six months after giving birth. The prevalence and pattern of anxiety symptoms in postpartum women is, however, somewhat inconsistent.

Some researchers have suggested that symptoms increase throughout pregnancy and continue into the postpartum period before generally decreasing over time (Riaz & Riaz, 2020; Biaggi et al., 2015; Dennis et al., 2017; Rados et al., 2018). Yet other researchers show an initial fall in symptoms but increase later in postpartum. Among a sample of 272 adult Croatian women, Rados et al. (2018) reported a prenatal anxiety prevalence of 35%, falling to 17% and rising to 20% at immediate and six-weeks postpartum.

An upturn in postpartum rates was also noted in a seminal study conducted by Stuart et al. (1998) showed an increase in symptoms over the extended postpartum period with anxiety levels at 8.7% at 14 weeks postpartum and 16.8% at 30 weeks postpartum.

This symptom pattern has some support with several researchers having suggested it is not uncommon for anxiety levels to spike in the postpartum period due to hormonal changes (Collier, 2021). Colino and Fabian-Weber (2021) described the hormonal shift that mothers experienced during pregnancy and immediately after delivery as a sudden drop in estrogen and progesterone levels to nearly zero; thus, contributing to postpartum anxiety.

2.2 Risks Factors for Anxiety in the General Childbearing Population

Biological factors aside, there are many risk factors that have been associated with an increased probability of postpartum anxiety such as depressive disorders prior to pregnancy and poor relationship adjustment with low social support (Martini et al., 2015; Rados et al., 2018). Stressful life events during pregnancy, and an increase in demands including difficulty with breastfeeding, lack of social support, financial difficulties, maternal health, and child wellbeing in the postpartum period may also contribute to increased anxiety (Hijazi et al., 2021). Further, Rados et al. (2018) found that early postpartum anxiety is a significant indicator of later postpartum anxiety.

Parity has also been found to increase pregnancy-related anxiety; yet findings are unclear. Brunton et al. (2020) reported that parity predicted prenatal anxiety, and the recognized connections between prenatal and postpartum anxiety highlighted the importance of this variable. The role, however, of the impact by parity upon anxiety requires additional research attention. Araji et al. (2020) found a correlation between fear and anxiety of childbirth among multiparous women having experienced a previous traumatic birth. Arch (2013) revealed women reporting no prior births experienced a greater fear of birth than multiparous women. Other studies have reported no difference in

anxiety levels between primiparous and multiparous women (Akiki et al., 2016; Gurung et al., 2005; Teixeira et al., 2009; Glazier et al., 2004).

Parity may also be related to another potential risk factor for anxiety-type of birth. A fear of birth for both women without previous births and multiparous women who experienced a past traumatic birth can incite a woman to request a cesarean birth (Rouhe et al., 2008). However, individual anxiety levels may differ depending on the birthing scenario or if the cesarean was elective versus emergency. Sadat et. al (2013) found that women who had a vaginal delivery had a better mental health score than women who had a cesarean birth. Conversely, Chen et al. (2017) found no significant increase in postpartum anxiety for women who had a cesarean birth.

As a potential additional risk factor, if the pregnancy was unplanned, increased stress and anxiety may ensue (Abbasi et al., 2013). An unplanned pregnancy occurs in about 45% of all pregnancies in the United States and more often in the unmarried adolescent population (Sawhill and Guyot, 2019). Mothers who report that their pregnancies are unplanned can experience lower quality relationships with romantic partners and may receive less social support than women who report planned pregnancies. According to Barton et al. (2017), unplanned pregnancies can invoke feelings of anxiety and other negative emotions because of the impact it has on relationships and social support.

2.3 Anxiety Prevalence and Risk Factors in Adolescents

The National Institute of Mental Health (NIMH, n.d.) states that about one third of adolescents (ages 10-19) experience some sort of anxiety disorder. Yet a recent systematic

review of 96 studies found adolescent anxiety (inclusive of posttraumatic stress) to be between 13.6% and 19.2% (Vanderkruik et al., 2021).

The commonness of anxiety among adolescents in general may place the childbearing teen at greater risk. Reports indicate the prevalence of anxiety among childbearing adolescents to be around 25.1% (Facts & Statistics: Anxiety and Depression Association of America, n.d.). In a Brazilian study of pregnant adolescents, aged 14-18, the prevalence of anxiety was found to be 23.3% (Freitas & Botega, 2002).

Identification of risk factors for anxiety among childbearing adolescents is overlooked in published research; however, Alegria et al. (2019) noted the risk factors of discrimination and low perceived social position predicted increasingly higher levels of anxiety among Puerto Rican adolescents living in the United States (inclusive of Latinas). Among pregnant adolescents (N=871) in Brazil, Peter et al. (2017) found that a lack of support was a critical contributor to anxiety and interrelated with both parity and unplanned pregnancies as potential risk factors. Further, according to Peter et al. primiparous adolescents required more support than their non-primiparous counterparts noting that a lack of support led to feelings of doubt, fear, and anxiety in the primiparous adolescents. Based on research among adults, the presence of anxiety before pregnancy or during a pregnancy may also suggest a risk for childbearing adolescents to experience anxiety and requires exploration.

2.4 Anxiety Prevalence and Risk Factors in the Hispanic Population

With a higher birthrate than other minorities, Hispanic women may more likely experience anxiety with reported higher parity and unplanned pregnancies. Furthermore, one-third of Hispanic women will experience a psychiatric disorder in their lifetime

(Barcelona de Mendoza et al., 2016); however, research relevant to the prevalence and risk factors of anxiety among Hispanics is very limited. Numerous published studies have explored the contribution of acculturation, but often with contradictory findings. For example, Barcelona de Mendoza et al. (2016) found women more acculturated to American ways (preferred to speak English and of 2nd/3rd generation) had higher prenatal anxiety levels. To the contrary, Fleuriet & Sunil (2016) found women who considered themselves to be highly acculturated had lower levels of anxiety during pregnancy.

Due to cultural implications, researchers have noted some challenges in reporting accurate data surrounding Hispanic anxiety levels. Screening tools utilized to measure anxiety among Hispanics may not always be reliable (Martinez, 2018). Likewise, anxiety may be expressed differently among Hispanics than other cultures. Hispanics may disregard common feelings of anxiety, such as heart palpitations and tremors as "ataque de nervios" (Martinez, 2018); thus, proper diagnosis and treatment may not be sought because symptoms are not recognized as anxiety. An understanding of Hispanic culture is critical to research activities in this population.

2.5 Connection of Anxiety to Birth Perception

Postpartum anxiety has been shown to have detrimental consequences to the perception of the adult's birth experience (Polachek et al., 2014). Polachek et al. revealed that women with high postpartum anxiety had a higher level of fear during the time they were giving birth and reported "feelings of danger to their lives or health or health of the fetus during labor" (p. 131), and consequently perceived birth as a negative experience.

The level of anxiety can be heightened by poor maternal and neonatal outcomes as well as the overall healthcare system (Smarandache et al. 2016). Unpredictable events

such as maternal hemorrhage, hypertension, the birth of an infant with complications or prematurity, and subsequent admission into a neonatal intensive care unit can create increased stress and anxiety for the mother (Ionio et al., 2019). How such events are handled by healthcare providers can create additional anxiety. Receiving poor care from health care providers has been found to be a major contributor to anxiety during pregnancy (McCarthy et al., 2021). Poor care was described as insensitive treatment by the provider or receiving inadequate information or feeling like the provider was withholding information. If a woman trusts her medical staff during labor, she will likely experience less anxiety compared to women who have no trust (Araji et al., 2020). Further, McCarthy et al. (2021) noted that some mothers felt extremely dissatisfied with the quality of the healthcare services available to them, and if the mother had a previous birth with decreased quality of healthcare, there was a higher likelihood of anxiety with future services during pregnancy. Ensuing unpredictable maternal and/or infant complications and healthcare providers' actions with increased anxiety impact the birth perception (Passarelli et al., 2019).

With regard to age, it has been suggested that the adolescent's birth perception may be different than that of the adult but findings are inconsistent (Nichols et al., 2014; Passarelli et al., 2019). Nichols et al. studied childbirth experiences among 14 adolescents. While there was some variation in their results, most of their participants expressed a "fairly positive" birth experience because of the support they had during their delivery. Other researchers have also found the younger mothers to be more positive about their birth experience. According to Smarandache et al. (2016), mothers younger than the age of 20 were less likely to report a negative birth experience when compared to mothers aged 30

and up. Conversely, Passarelli et al. (2019) compared Brazilian adolescents (n=50) and adults (n=51) and found that the median maternal satisfaction score for adolescents was lower than for adults. The increased dissatisfaction of the adolescents was related to the infant and healthcare provided by doctors and midwives.

The connection between anxiety and birth perception in Hispanic adolescents is unknown. Yet, with the number of childbearing Hispanics expected to grow by 92% by 2050, research in this area is imperative (Born Too Soon: Prematurity in the U.S. Hispanic Population, 2007). Additional insight through research may provide direction to improving adolescent mental health; thus, promoting a positive childbirth experience, especially for the minority adolescent (Bell et al., 2016).

CHAPTER 3

METHODOLOGY

3.1 Study Design

The current study was a descriptive design using a secondary analysis approach from a database of adolescents (N=303) recruited for a previously conducted Institutional Review Board (IRB) approved, longitudinal study exploring maternal mental health and the birth experience over nine months. The current focus aimed to explore anxiety and the contributing factors of parity and unplanned pregnancy upon the birth perception reported by Hispanic adolescents.

3.2 Sample

A cohort of Hispanic adolescents (self-identified) representing 62.5% of the original total sample comprised this sample (N=183). The primary inclusion criteria included adolescents ranging in age between 13-19 years and either Spanish or English speaking. Sample characteristics can be seen on Table 4.1.

3.3 Setting

The sample setting for the primary study was two postpartum units at John Peter Smith Hospital (JPS), Tarrant County Hospital District, located in Fort Worth, Texas. JPS is a large, county hospital delivering about 4000 infants per year, and representative of nearly 20% of the county's births. The majority of the patent population for JPS is Hispanic.

3.4 Measurements

In the primary study, birth perception and anxiety were measured via one-item researcher-developed rating scales. Additionally, the 3-item Edinburgh Postnatal Depression Scale (EPDS), or the EPDS-A, was used as a measure for anxiety. Single item indicators, such as used for anxiety and birth perception, have shown adequate "reliability and construct validity," plus offering "valuable information regarding individual perceptions of a concept under study…" (Youngblut & Casper, 1993, p. 463).

The birth perception rating scale ranged from 0-10, with 10 equaling an "awful or traumatic" experience/perception to 0 as a "great" experience. A cutoff score of 6 or greater indicated a negative birth perception as indicated by others using a one-item rating scale (Sorenson & Tschetter, 2010). The one-item anxiety scale ranged from 0 "no anxiety" to 5 "very much" anxiety. A cutoff score was determined by researchers according to the median score (3.00); thus, a score above 3 indicated "some" anxiety.

The full 10-item EPDS has shown adequate reliability and validity for both pregnant and postpartum women among multicultural and multiethnic adult and adolescent populations as a measure of depression (Birkeland et al., 2005; Cox et al., 1987). Three items of the EPDS (#3, 4, and 5) have been used to provide an assessment of perinatal anxiety with a score of greater than or equal to four equating with higher anxiety (Swaim et al., 2010). The EPDS-A has been described as a reliable screen for anxiety (Loyal et al., 2020; Riaz & Riaz, 2020). A weak but significant correlation between the 5-point anxiety rating scale and the 3-item EPDS established convergent validity, r=.25. .001 for the current study. Reliability for the 3-item EPDS-A for the current study was established at 0.74.

A demographic tool assessed the main confounding variables of parity and unplanned pregnancy and a few additional sample characteristics such as gravidity, manner of birth, age, and marital status.

3.5 Procedures

For the primary study, researchers first held a staff in-service to apprise everyone about the coming study and discuss maternal mental health issues and connection to the birth experience. Research began shortly thereafter. Upon arrival to the postpartum unit, data collectors communicated with the unit clerk about individuals who were eligible to be in the study. At first contact, data collectors described the study to adolescents, solicited interest, and requested consent, followed by a completion of surveys. Those who did not wish to participate in the study were thanked for their time. The acceptance rate into the primary study was 90%. Data were assessed at three days postpartum and collected in private as possible without partner or parents present. Adolescents over 17 years old consented for themselves; teens under 18 years of age assented with consent of parent or guardian.

3.6 Data Analysis

For the current study, descriptive statistics medians, percentages and frequencies were used to define the sample and precent of anxiety symptoms. Associations between anxiety, parity and unplanned pregnancy were determined using Kendall tau correlation coefficients. Ordinal regression allowed for an exploration of effects of anxiety upon birth perception.

CHAPTER 4

RESULTS

The percentage of Hispanic adolescents found to have some anxiety by the EPDS-A was 35.8%. The rating scale indicated 40.8% of adolescents to be anxious. About 20.5% of adolescents reported more than one child and 63.8% of the current pregnancies were unplanned. Parity and EPDS-A scores were found to significantly correlate, tau= -.149, p=.023; however, subjective anxiety per rating scales did not significantly correlate with parity. Unplanned pregnancy was not found to be associated with either measure of anxiety. A median score for the rating of anxiety scale was 3.00. Mean EPDS-A scores were 2.84 for parity 1 adolescents, 2.06 for parity 2 adolescents and 2.33 for adolescents with three or more children. In total, 40.8% of adolescents expressed a negative perception of birth with a rating of above 6.00 with a median overall score of 5.00; however, regression analysis indicated only the subjective rating of anxiety to be a predictor of birth perception, M=3.00, 95% CI [.082-.414].

Table 4.1: Sample Characteristics of Adolescent Hispanics(N=183)

Sample characteristics	Frequency	Percent
Gravida	139	76.0
1	33	20.8
2	5	2.7
3	1	0.5
4		
Parity*	144	79.6
1	33	18.2
2	4	2.3
3+		
Age	2	1.1
13	4	2.2
14	11	6.0
15	16	8.7
16	20	10.9
17	62	33.9
18	68	37.2
19		
Marital Status	143	78.1
Single	38	20.8
Married	1	0.5
Other		
Type of Delivery*	150	83.8
Vaginal	29	16.2
Cesarean		
EPDS-A (score 4-9=anxiety)	62	35.8
Rating scale= anxiety	109	40.8
Unplanned Pregnancy	111	63.8

CHAPTER 5

DISCUSSION

5.1 Research Discussion

Anxiety is a common mental health disorder but rarely studied in childbearing populations, and especially among postpartum Hispanic adolescents. Findings in the current study showed that according to the EPDS-A scale, 35.8% of the population experienced anxiety. Likewise, 40.8% of participants expressed a subjective feeling of anxiousness based on the anxiousness rating scale. Rados et al. (2018) using a standardized rating scale (Spielberger State-Trait Anxiety Inventory) and a self-report rating scale to measure anxiety found that 46.7% of adult Croatian women reported high anxiety on at least one assessment. Lower anxiety ratings for Hispanic adolescents may be due to cultural implications. In the Hispanic population, there is much support for the childbearing woman (Bleakney, 2010); therefore, a pregnant adolescent may not feel as anxious because she knows that she has the support of her family to help her care for her baby. Overall, 60% of the Hispanic adolescents in the current study did not express anxiety subjectively or via the EPDS-A.

Parity was found to be related to anxiety which can be important to this population with high birth rates. Many studies, including works by Arch (2013) and Bruton et al. (2020), discussed the impact of parity on postpartum anxiety. Similar to these findings, the current study found parity to have a significant impact on anxiety with adolescents reporting a first birth more anxious. Yet, research findings in the literature vary as it relates

to parity and anxiety. Some researchers explain that primiparous women may have more anxiety because of the unknown nature of pregnancy and childbirth. Fear of the unknown can have a major impact on anxiety (Carleton, 2016). Contrary, multiparous women have been found to display more symptoms of anxiety if they had a previous negative birth experience or are experiencing stressful life events (Hijazi et al., 2021).

Published findings regarding unplanned pregnancies are also somewhat inconsistent. Abbasi et al. (2013) found that the unplanned nature of a pregnancy can increase postpartum anxiety, yet unplanned pregnancy did not have a significant impact on anxiety with the current study population. However, current study findings are similar to the conclusions by Sawhill & Guyot (2019) who explained the lack of a connection between anxiety and unplanned pregnancies may be due to the fact that most adolescent pregnancies are unplanned or among unmarried individuals, and an unplanned pregnancy has less of a negative stigma today than it did years ago, hence the level of anxiety is lessened.

Finally, over one-third of adolescents (35.7%) reported a negative or traumatic birth experience. For almost two decades, published reports have noted that about one-third of women will report a traumatic or negative perception of birth (Ayers, 2004; Bay & Sayimer, 2021). These negative reports are often associated with poorer mental health such as depression (Bay & Sayimer). Depression is notably often co-morbid with anxiety (Uguz et al., 2019). The anxiety noted in this population, per subjective report, was found to predict a negative birth perception and further supports the benefit of a simple self-report. Published works show that prenatal anxiety often continues through postpartum for an extended period in some cases, and is suggestive of routine prenatal assessments beginning

early in pregnancy into an extended postpartum to guide and direct interventions in promoting positive mental health and birth perception.

CHAPTER 6

CONCLUSION

6.1 Research Conclusion

The impact of anxiety upon birth perception in Hispanic adolescents is an under-researched topic. While this topic still needs further investigation, the current study found over one-third of Hispanic adolescents were anxious, and that parity related to this anxiety. Administration of a simple one-item rating scale of anxiety was a useful tool to aid in predicting the effect of anxiety on birth perception. The Hispanic population is a fast-growing population with high childbearing rates; cultural implications suggest the need to assess anxiety routinely beginning prenatally and especially among first time Hispanic mothers-to-be to aid in promoting a positive birthing experience and mental health.

Limitations

Study limitations may impact these findings. First, the study utilized a secondary analysis which uses previously collected data aimed at one purpose. Common to secondary analysis, subsequent research is limited to subjects, settings, variables, and procedures of the primary study. Likewise, the dependent variable and one calculation of our independent variable, were measured using a one item scale which may have limitations. Further, the cutoff for the anxiety rating scale was predetermined by the researchers. Lastly, the population sample was older with an average age of 17.8. Future research recommendations include obtaining a sample of younger mean age adolescents and use of

a gold standard to assess anxiety such as the Spielberger State Trait Anxiety scale.

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BIOGRAPHICAL INFORMATION

Analee will be working at St. Luke's Hospital in The Woodlands, TX as a new nurse. There, she hopes to provide the best care possible to patients of all backgrounds. She will be working on a medical-surgical unit, where she will learn how to provide direct care to patients suffering from a variety illnesses and ailments. Additionally, Analee plans to go back to school to further her education.