The Adolescent Birth Experience: A Comparison of Three Diverse Groups

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ABSTRACT

Recognized risk factors influencing the birth experience and subsequent poor mental health are not addressed among childbearing adolescents, especially minority teens. Our study purpose was to compare birth experiences of three adolescent groups by prevalence and influence of selected risk factors as moderated by racial/ethnic background. Using a birth rating scale and the Impact of Event Scale, birth perception and stress were examined among an equal number of Black, White, and Hispanic adolescents. Surveys completed at 72 hours postpartum showed Black adolescents most at risk for a negative birth experience. Contributing risk factors included depression, trauma, parity, and operative childbirth. Risk factors occur before and after birth; therefore, childbirth educators can promote a positive birth experience via perinatal assessments and interventions.

The Journal of Perinatal Education, 29(4), 197–207, <http://dx.doi.org/10.1891/J-PE-D-19-00027>

Keywords: adolescents, birth experience, racial/ethnic, stress, depression

INTRODUCTION

While a happy event for most women, childbirth can be perceived as negative and marked with acute stress and possibly extended, traumatic psychological sequelae. Among primarily adult samples, risk factors associated with a negative birth experience, post-traumatic stress symptoms (PTSS), and post-traumatic stress disorder (PTSD; PTS/D) can include fear of childbirth, low social support, poor maternal mental health, trauma history, birth type, and pregnancy or infant complications (Dekel et al., 2017). Demographics, such as racial/ethnic background and age have limited attention and show inconsistent findings within systematic reviews (Andersen et al., 2012; Ayers et al., 2016; Cook et al., 2018;

Dekel et al., 2017; Grekin & O'Hara, 2014); thus, it is unclear if adolescents, especially minority teens, differ from adults in their risk potential to experience a negative birth.

The adolescent's increased frequency to report depression, trauma history, and infant complications may suggest increased vulnerability to experience a negative birth event. Further, the minority adolescent may be of greatest risk due to recognized racial/ethnic disparities for these specific risk factors (Alleyne-Green et al., 2012; Bekaert & Smith Battle, 2016; Kim et al., 2015; National Institute of Mental Health [NIMH], 2015; Papri et al., 2016; Schmidt et al., 2006; Siegel & Brandon, 2014; Tabet et al., 2017). Therefore, the purpose of our study was to

compare birth experiences of White, Black, and Hispanic adolescents, ages 13–19, by exploring the prevalence and influence of selected risk factors as moderated by racial/ethnic background.

THE BIRTH EXPERIENCE

Over one-third of women report a negative birth experience and/or psychological distress in early postpartum (Bell & Andersson, 2016; Dikmen-Yildiz et al., 2017; Patterson et al., 2018). Early distress has been suggested to lead to negative outcomes for women, infants, and families (Simpson et al., 2017). Previous study by the current researchers similarly determined that one-third of adolescents suffered a negative birth experience. Further, depression, lack of partner support, birth mode, poor pain management, trauma, and infant complications contributed to either a negative perception of birth, or acute stress (Anderson & Connolly, 2018).

Identity development may also impact the way events [such as childbirth] are perceived and interpreted (Low et al., 2003). Adolescence has been defined as the onset of physiologically normal puberty until the time when adult behaviors and identity are accepted. This period of development for individuals 12–20 years old, was first labeled by Erickson as the identity versus role confusion stage (Erikson, 1963). A secure sense of self is achievement of the developmental task as illustrated by a sense of confidence, emotional stability, and a view of self as unique. Lacking task achievement, opposite outcomes arise, including a noted association between identity confusion-related distress and depression (Demir et al., 2010).

Risk Factor Prevalence and Disparity by Age and Racial/Ethnic Group

Depression. Adolescents have higher recognized rates of perinatal depression than adults, ranging between 16% to as high as 61% (Hodgkinson et al., 2014; Ko et al., 2017; Logsdon et al., 2005; Siegel & Brandon, 2014). In two separate studies, young adults (ages 21–25) showed higher depression rates than adolescents (Nunes & Phipps, 2013;

Torres et al., 2017). Minority adolescents may be most at risk for depression, especially the Black adolescent (Kessler et al., 2012). Yet, in a seminal, longitudinal study comparing diverse, adolescent groups for postpartum depression over 4 years, Schmidt et al. (2006) reported Black adolescents to have the lowest rate of moderate to severe depression symptoms; but highest rates of recurrence, when compared with Hispanic and White adolescents. A 27-state data report ($N = 184,828$) noted comparable rates of postpartum depression among White, Black, and Hispanic adult and adolescent women (Ko et al., 2017). A large secondary analysis of pregnant adolescents ($N = 1,023,586$) showed the highest prevalence of depressive disorders among White adolescents (Abdelaal et al., 2018). Noted inconsistencies for adolescent depression particularly among minorities may reflect questionable veracity of self-reported symptoms, lack of mental health literacy, underuse of mental health services, and a rarity of depression screening in practice (Hodgkinson et al., 2014; Liang et al., 2016; Recto & Champion, 2017; Zenlea et al., 2014).

Trauma History. Childbearing adult and adolescent women reporting depression symptoms frequently report a history of childhood maltreatment including sexual abuse, physical trauma, and/or partner violence (Buzi et al., 2015; Hodgkinson et al., 2014). However, pregnant and parenting adolescents suffer higher rates of partner violence than adults, and appear to be at risk for neglect, child abuse, incarceration, and traumatic loss (Bekaert & Smith Battle, 2016; Herrman et al., 2016; Leplatte et al., 2012). The influence of racial/ethnic background on trauma, however, remains unclear. In a primarily adult sample, de Oliveira et al. (2017) noted a direct link between ethnicity and childhood sexual abuse. Additional researchers have found partner violence to associate with ethnicity; however, after controlling for sociodemographic factors, the higher victimization rates found initially for the Black woman were determined to be like that for White and Hispanic women (Cho, 2012). Similarly, researchers conducting a large ($N = 1,047$), prospective study across 12 months found no significant difference in rates of partner violence among diverse adolescents or young adults (Agrawal et al., 2014). Yet, contrary data from the Centers for Disease Control and Prevention (CDC) revealed higher rates of partner violence for Hispanic (7.6%) and Black (10.2%) adolescents than for White (7%) adolescents (Kann et al., 2018).

A systematic review of 31 studies addressing adolescent pregnancy outcomes supported a higher risk for Black adolescents to experience preterm birth and low infant birth weight, despite other social determinants of health.

Infant Complications. Despite inconsistencies, research supports links between trauma, depression, and infant complications including premature birth (PTB; < 37 weeks), low infant birth weight (LIBW; < 2,500 g), intrauterine growth restriction, and infant developmental delays (Anderson & Cacola, 2017; Stein et al., 2014). Adolescents report the highest PTB rates (10.29%) and LIBW rates (9.90%; Martin et al., 2018). Indeed, adolescents (11–18) have been found to be at greater risk for both infant and maternal complications than young adults (25–29; Cavazos-Rehg et al., 2015). Unlike rate inconsistencies for depression and trauma among racial/ethnic groups, disparities related to infant outcomes have been recognized for decades, often highlighting a White–Black gap (Clay & Andrade, 2016; Howell et al., 2018; Wilson et al., 2011). Across age groups, reported PTB rates indicate 13.93% for Blacks, 9.05% for Whites, and 9.62% for Hispanics (Martin et al., 2018). For LIBW rates, Clay and Andrade (2016) reported a Black–White gap of 12.2% versus 5.6%, respectively. For the Black woman, a higher risk for PTB, lower APGAR scores, and admission of an infant into a neonatal intensive care unit was found to remain following adjustment for socioeconomic factors, education, number of prenatal care visits, and stress level (Grobman et al., 2018; Wilson et al., 2011; Yee et al., 2016). Black adolescents have also been found to be at risk to give birth prematurely, deliver a low birth weight infant, and experience a fetal death (Coley et al., 2015; Martin et al., 2015; Papri et al., 2016). Recent information shows preterm birth rates of 12.78% for Black adolescents as compared to Hispanic (9.08%) and White (9.95%) adolescent rates (Martin et al., 2018). A 2019 systematic review of 31 studies addressing adolescent pregnancy outcomes ($N = 59,670,142$) supported a higher risk for Black adolescents to experience PTB and LIBW, despite other social determinants of health (Amjad et al., 2019).

Given potential risk factors with possible mental health consequences, we compared three adolescent groups by prevalence and influence of selected risk factors for a negative birth experience as moderated by racial/ethnic background via the following research questions:

1. How do White, Black, and Hispanic childbearing adolescents compare demographically and by prevalence of risk factors associated with a negative birth?

2. How do selected risk factors influence the birth experience when moderated by racial/ethnic background?

METHOD

Design

A secondary analysis was conducted using data from a previously conducted Institutional Review Board approved study ($N = 303$) exploring risk factors for birth perception and acute stress (PTSS) among childbearing adolescents, ages 13–19 (Anderson & Connolly, 2018).

Study Sample

For the parent study, adolescents speaking either English or Spanish between the ages of 13 and 19 were approached for study enrollment. A 90% acceptance rate was obtained with 12 of the 303 adolescents of the final sample Spanish speaking only. However, setting characteristics created an uneven balance of adolescents enrolled, with over twice as many Hispanic adolescents as the next largest group of teens (Black); therefore, for the current study, a sample was created to allow for an equal number of Black, White, and Hispanic adolescents. Using the total sample of adolescents representing the smallest subgroup (White) we defined the group sample size ($n = 31$). Once the group sample size was set, an equal number of Black and Hispanic teens were randomly selected from their perspective group for a total sample size of 93. As in the parent study, about 20% of adolescents in the current study were below the age of 18 with the remainder late stage adolescents. Adolescents under 18 represented 16.9%, 28.9%, and 22.6% of White, Hispanic, and Black groups, respectively; however, youngest (13–14) teens were either Black or Hispanic. The study setting was two postpartum units of a large, county hospital representing nearly 20% of the county's births, and primarily serving a low-income, Hispanic population.

Instruments

Two measures defined the birth experience: subjective perception of the birth event and acute stress. A one-item rating scale was used to determine the adolescent's perception of birth measured between 1 ("great") and 10 ("awful," or traumatic). The use of a one-item measurement tool has previously been used with a set score of over 6 to indicate a negative perception of birth (Sorenson & Tschetter, 2010).

Single-item indicators 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 15-item Impact of Event Scale (IES; Horowitz et al., 1979) was developed to measure subjective distress/trauma impact and has been used in childbearing populations as a measure for acute stress within the first week of birth (Gurber et al., 2012; Skari et al., 2002). Acute stress is indicated by total IES scores or subscale scores of intrusion and avoidance. By definition, intrusion refers to unwanted thoughts and images and waves of strong feelings and repetitive behaviors (reexperiencing) related to the traumatic experience (e.g., birth). Avoidance refers to numb feelings relating to birth, or denial of feelings about the traumatic experience with efforts not to think or talk about it (Gurber et al., 2012). Total scores indicate stress levels of 0–8 subclinical range; 9–25 mild range; 26–43 moderate range, and 44 and above, severe range (Horowitz et al., 1979). While lacking a consensus, for general populations a standard cutoff score for intrusion and avoidance subscales identifying clinically significant levels of PTSS has been suggested at ≥ 20 (Furuta et al., 2016; Horowitz et al., 1979). Test–retest reliability (0.79–0.89) and Cronbach’s alpha (.78–.82) for the IES have been demonstrated to be adequate (Horowitz et al., 1979). Reliability in the current study was 0.86.

As a common comorbidity with PTS/D (Ayers et al., 2016), depression symptoms were assessed using the 10-item Edinburgh Postnatal Depression Inventory, EPDS (Cox et al., 1987). Four possible responses for each question are scored from 0 to 3, creating a range between 0 and 30. A score of 10 or more indicates symptoms suggestive of minor depression; a score of 13 and above indicates symptoms of major depression (Cox et al., 1987). The EPDS has shown adequate reliabilities among multicultural and multi-ethnic adolescent populations (Birkeland et al., 2005; Venkatesh et al., 2014). Reliability established for the current study was 0.77. Venkatesh et al. (2014) reported sensitivities of 90% and specificities of > 85% among adolescent mothers. Convergent validity has been reported with the *DSM-4*.

Collected demographics comprised racial/ethnic background, age, parity, type of birth (cesarean surgery or vaginal birth), marital status, and planned pregnancy. Additional assessed risk factors included infant complications (gestational age < 37 weeks and birth weight < 2,500 g) and trauma history (self-report Yes–No of “any past life experiences that were traumatic”).

Procedures

In conducting the parent study, the primary investigator first informed hospital staff of the coming study via an in-service on birth trauma and risk factors and oriented graduate research assistants regarding their role as data collectors. Recruitment was facilitated by research-informed hospital staff who compiled a list of eligible adolescents for data collectors upon request. At first contact with adolescents, data collectors provided an explanation of the study, assessed interest, and initiated signing of consent, and completion of surveys (in adolescent’s preferred language). Surveys were completed within approximately 45 minutes at about 72 hours postpartum, and in private when possible.

Data Analyses

Descriptive statistics (means, standard deviations, percentages, frequencies) provided adolescent profiles. One-way ANOVA and chi-square analyses determined demographic and risk factor differences among groups. To see the joint effect of individual risk factors plus the risk factor of racial/ethnic background upon each outcome variable, we used a two-way factorial ANOVA which allowed for a testing of interactions between factors and determined if outcomes were moderated by racial/ethnic differences. Tukey’s post hoc analyses determined specific differences among the three groups. A level of significance at .10 was set because of limited research in this area. Further, because examined risk factors for a negative birth are potentially more common among adolescents in general, we were willing to accept an incorrect rejection of the null hypothesis within a wider margin, or 10% of the time.

RESULTS

Adolescent groups were statistically equivalent demographically except for a significant difference by type of birth, $F(2) = 3.92$, $p = .023$, between Hispanic and Black adolescents, $p = .017$. Nearly 30% of adolescents required a cesarean surgery, with Black adolescents reporting a rate at 45.2% versus 13.3%

Black adolescents were found most at risk for a negative birth experience illustrated by reports of a negative birth perception and acute stress via elevated symptoms of intrusion.

for Hispanic teens. Adolescents were typically older ($M = 18.00$; $SD = 1.28$), single, first-time mothers; yet, a higher number of Black adolescents reported two or more children. Pregnancies were typically unplanned. Over 13% of adolescents reported a PTB, with Hispanics reporting the highest rate at 16.7%. Yet, despite prematurity risk, mean birth weights for Black infants (2,941 g) were less than either Hispanic (3,104 g) or White (3,608 g) infants. Regarding preexisting risk factors, either minor or major depression symptoms was reported by 1 in 4 Hispanic and Black adolescents, compared to 1 in 10 White adolescents; however, this finding was not significant. Reports of trauma history were also similar among the three groups (Table 1—Sample Characteristics).

The Birth Experience

On average about one-third of adolescents perceived their birth experience as negative. Black adolescents perceived their birth as negative significantly more often than White teens, $F(2) = 3.85$, $p = .025$ with nearly half (48.4%) scoring above 6 on the birth rating scale compared to 22.6% of White and 26.7% of Hispanic adolescents. Main effects of parity, $F(2) = 2.91$, $p = .039$, and trauma history, $F(1) = 3.24$, $p = .075$, on birth perception were found.

Total mean IES scores ($M = 21.71$; $SD = 15.4$) indicated mild acute stress overall, yet, 41.3% of adolescents scored over 26 suggesting moderate to severe acute stress. No significant racial/ethnic effects on total IES scores were found; however, fewer Hispanic adolescents reported moderate or severe acute stress than Black or White adolescents. There were no significant main or interaction effects on IES by other demographic risk factors; however, a significant main effect of depression on total IES scores, $F(14) = 4.75$, $p = .000$, was found. Analyses of IES subscale scores of avoidance and intrusion revealed total subscale means scores of 11.11 and 10.00, respectively. Subscale scores ≥ 20 suggested clinically significant adolescent stress (PTSS) for 19.6% and 11% by avoidance and intrusion symptoms, respectively. Mean avoidance (not significant) and intrusion scores (significant) were highest for Black adolescents. Both depression, $F(14) = 3.80$, $p = .000$, and cesarean surgery, $F(1) = 2.99$, $p = .08$, revealed significant, main effects on avoidance. Further, an interaction effect of racial/ethnic and trauma history on avoidance, $F(2) = 2.86$, $p = .06$, was also seen; however, with post hoc analyses, no difference between racial/ethnic groups was found.

Current findings suggest a need for assessments and directed interventions to begin prenatally and continue into postpartum to promote a positive childbirth experience, especially among Black childbearing adolescents.

Symptoms of intrusion significantly differed by racial/ethnic group with a higher account of symptoms (almost double) reported by Black adolescents, $F(2) = 4.36$; $p = .016$, than for White, $p = .02$, or Hispanic, $p = .05$ teens. A main effect of depression on intrusion, $F(14) = 3.44$, $p = .000$, was noted; however, racial/ethnic risk was not significant. The exploration of remaining risk factors as moderated by racial/ethnic risk repeated a significant, main effect by racial/ethnic background on intrusion in all analyses; however, no main or interaction effects were noted for cesarean surgery, $p = .885$; age, $p = .417$; unplanned pregnancy, $p = .851$; marital status, $p = .374$; or trauma history, $p = .163$ on intrusion (Table 2— F values and post hoc analyses for racial/ethnic risk for individual risk factors).

DISCUSSION

Overall, about one-third of adolescents reported a negative birth experience, which is a consistent finding in published works primarily among adults (Bell & Andersson, 2016; Dikmen-Yildiz et al., 2017). Black adolescents were found most at risk for a negative birth experience illustrated by reports of a negative birth perception and acute stress via elevated symptoms of intrusion. Birth perception was found to be significantly impacted by parity (higher) and trauma history, both of which more often characterized the Black adolescent. Other researchers have explored parity, finding no to little effect on the overall birth experience; this finding may suggest that parity may contribute more to the adolescent's birth perception than that of the adult. Neither infant complications nor type of birth showed effects on birth perception, despite higher than average preterm birth rates among Hispanic teens and a high number of cesarean surgeries for Black adolescents. Why preterm or cesarean surgery was not seen as critical to the teen's perception of birth may be due to a general unawareness of potential long-term consequences, an increased faith in the medical community to make "things right," denial, or just thankfulness that a pregnancy and/or long labor were over. Main effects by type of birth on avoidance was

TABLE 1

Sample Characteristics: Comparison of Groups

Group	Caucasian		Hispanic		Black		All Groups	
Variable	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Age mean/ <i>SD</i> =	18.13/1.05		17.87/1.52		18.13/1.25		18.00/1.28	
Birth type								
Vaginal	22	71	26	86.7	17	54.8	65	70.7
Cesarean	9	29	4	13.3	14	45.2	27	29.3
Parity = 1	24	77.4	25	83.3	23	74.2	72	78.3
Traumatic life experiences	6	19.4	5	17.2	8	26.7	19	21.1
Birth rating								
0–6 (low)	24	77.4	22	73.3	16	51.6	62	67.4
7–10	7	22.6	8	26.7	15	48.4	30	32.6
EPDS								
0–9	25	89.3	23	73.3	22	71.0	70	77.5
10–12 (minor)	0	0	2	6.6	6	16.4	8	9.0
13+ (major)	3	10.7	6	20.0	3	9.7	12	13.4
IES								
0–8	10	32.2	8	26.7	6	19.4	24	26.1
9–25 (mild)	6	19.3	12	40.0	9	25.0	27	29.4
26–43	13	42.0	9	30.0	12	42.8	34	36.9
44+ (severe)	2	6.4	1	3.3	4	12.8	7	7.7
Intrusion (<i>M/SD</i>)	7.7/8.5		8.5/7.1		13.5/8.8		10.0	
Avoidance (<i>M/SD</i>)	10.8/10.7		10.8/9.5		11.6/8.6		11.1	

Note. EPDS = Edinburgh Postnatal Depression Scale; IES = Impact of Event Scale.

Some missing data.

TABLE 2

Univariate *F* Tests of the Perceived Likelihood of Experiencing Symptoms of Intrusion by Racial/Ethnic Risk With Noted Non-significant Demographic and Preexisting Risk Factors

Risk Factors	<i>F</i> Test	<i>P</i> Value*	Post Hoc
Racial/ethnic/cesarean surgery	3.31	.04	B–W [<i>p</i> = .025]
Racial/ethnic/marital status	6.34	.003	B–W [<i>p</i> = .007; B–H <i>p</i> = .046]
Racial/ethnic/unplanned pregnancy	4.71	.012	B–W [<i>p</i> = .024; B–H <i>p</i> = .052]
Racial/ethnic/age	.633	.534	NA
Racial/ethnic/trauma history	2.53	.08	B–W [<i>p</i> = .022; B–H <i>p</i> = .04]

Note. B–W = Black–White difference; B–H = Black–Hispanic difference.

*p < .10 significant.

found suggesting this possible coping mechanism by adolescents receiving a cesarean surgery. However, a seminal study by Low et al. (2003) found that while adults rated only vaginal birth to be associated with a positive birth experience, adolescents rated both vaginal births and cesarean surgeries as positive. In a small Canadian study of young adults (mean age 22) the preferred method of birth was cesarean surgery because it was more convenient, less painful, and more empowering (Stoll et al., 2014). Findings may

suggest a more positive or indifferent attitude by adolescents versus adults toward cesarean surgery.

Acute stress was noted by nearly half of the adolescents, with significantly more Black adolescents reporting intrusion symptoms (reexperiencing). Within this early postpartum period, acute stress may be common to all women as they recover from the birth process. Unfortunately, no known comparable studies focused on acute stress in early postpartum among diverse adolescents exist. One

TABLE 3

Comparison by Risk Factors and Outcomes for Adolescent Groups: Flags for Concern

Risk Factor	Adolescent Group		
	White	Hispanic	Black
Depression	+***	+***	+***
Trauma history	+*	+*	+*
Low gestational age of infant		+	
LIBW			+
Parity (higher parity)	+**	+**	+**
Type of birth (C/S)			+**
Age (13–16 years vs. 17–19 years)	Not seen	Not seen	Not seen
Unplanned pregnancy			+
Marital status (single)			+
Outcomes			
Acute stress (high total IES scores)	+		+
Intrusion symptoms (subscale scores)			+**
Avoidance symptoms (subscale scores)	+	+	+
Negative perception of birth experience			+**

Note. IES = Impact of Event Scale; LIBW = low infant birth weight.

Identified risk factors (+) are based on observed percentages, which are not significant, but may suggest "yellow flags" for care provider attention. The additional symbol of * indicates a significant finding at specific level of significance noted above and suggests "red flags." The symbol +*(**, ***) across all groups indicates a significant effect (by stated variable) on the birth experience by racial/ethnic background but for no one specific racial/ethnic group over another.

* $p < .10$. ** $p < .05$. *** $p < .01$.

rare study among Norwegian adults (mean age 28.2) reported acute stress via the IES at 1–4 days postpartum (Skari et al., 2002). Adult avoidance subscale scores were below those found for all current study adolescents, and intrusion subscale scores were below those reported for Black and Hispanic adolescents, possibly suggesting adolescent–adult differences in symptoms' display of acute stress in early postpartum.

Early acute stress may become a concern in later postpartum with symptoms of PTSD (Dikmen-Yildiz et al., 2017). While Skari and colleagues (2002) denied childbirth as a trigger for psychological distress they did indicate multiparity, single parenthood, and a previous traumatic birth as predictors of birth trauma. The current study also noted parity to have a significant effect on the adolescent's birth perception with the Black adolescent at highest parity and risk. Black adolescents also reported significantly more cesarean surgeries. Among primarily adults, Furuta et al. (2016) reported associations between elevated intrusion and/or avoidance scores at 6–8 weeks postpartum and ethnicity (Black) and emergency cesarean surgeries, and along with other risk factors, identified the Black woman at higher risk

to develop PTSD than the White woman. Demographics may play a significant role for childbearing adolescents with continued influence on future birth experiences into adulthood, especially if of Black ethnic background. However, often due to limited exploration of race/ethnicity in individual studies, as noted by Grekin and O'Hara in their 2014 systematic review, the importance of this variable upon the birth experience for all age women remains unclear.

Regarding other variables of interest influencing acute stress, we found a higher percentage of Black adolescents reported both trauma and minor/major depression; yet, neither trauma nor depression significantly characterized one adolescent group. A significant interaction effect of trauma and racial/ethnic upon avoidance was, however, noted and a larger sample size might distinguish a vulnerable group of adolescents. Trauma has been identified in systematic reviews to be a risk factor for PTSD (Andersen et al., 2012; Dekel et al., 2017); therefore, continued research is important to offer additional insights. Depression also did not significantly differentiate groups; yet, diverse adolescents reported more minor or major depression than White teens. Main effects of depression upon intrusion, avoidance, and total

IES scores supported the recognized comorbidity between depression and PTSD and is a concern for future mental health of all ages of women.

IMPLICATIONS FOR PRACTICE

The importance of early assessment of this population is clear. Santoro et al. (2018) warned that a negative birth experience lived and recalled should be the first warning sign for PTSS. Prevention begins, however, with prenatal assessments. Additional research is needed to determine if the adolescent childbirth experience is less favorable than the adults; however, several risk factors have been recognized, with specific adolescents possibly at most risk. Our current study findings offer several implications for practice and action by childbirth educators in the community, hospital, and society at large. Most importantly is an awareness by childbirth educators of risk factors influencing the birth event and the signs and symptoms of a negative birth experience. Because risk factors may occur before, during, and after birth, assessment, and intervention (if needed) must begin prenatally and continue, as needed, into the expanded postpartum period. Based on our study findings, Table 3 provides a guide of risk factors suggesting both yellow and red flags for childbirth educator consideration. Findings suggest increased attention to the Black childbearing adolescent with offered encouragement for comprehensive prenatal visits and early assessments. Identification of preexisting trauma and depression prenatally alerts childbirth educators of the need to offer and encourage use of counseling opportunities before birth. Comprehensive prenatal visits and childbirth classes can provide adolescents with information useful to reduce the stress and anxiety arising if faced with a cesarean surgery or preterm birth. Postpartum assessment of birth perception and symptoms of acute stress is also essential. Psychosocial aspects of care are often overlooked, and women have reported the lack of attention to emotional needs postpartum (McCarter & MacLeod, 2019). The EPDS provides a quick assessment of depression both prenatally and in postpartum for childbearing women of all ages. Multiparous adolescents may be at increased risk to suffer depression and can benefit from community resources and support groups. Education directed at parenting stress, stress in general, and birth control may also be helpful. Minority adolescent mothers have been found to experience more parenting stress than White teens (Huang et al., 2019). Further,

advocating for current practice and legislative changes is needed to strengthen perinatal care assessments favoring universal screening for depression and other mental health concerns and to develop and implement a structured follow-up plan for at-risk mothers. A team consisting of childbirth educators, clinical nurse specialists, and maternity staff can provide post discharge follow-up and monitoring of at-risk women by phone, text, or home visit for symptoms of depression or PTSD that occur or intensify weeks to months after discharge.

STRENGTHS, LIMITATIONS, AND RECOMMENDATIONS

This study focused on a unique topic within an overlooked, diverse population. Limited works exist which explore and compare demographic variables for impact on the birth experience, especially among diverse adolescent groups. Despite small samples, preliminary results of the study provide interest and suggestions for clinical practice among childbirth educators and direction for additional research. Methodology limitations include use of secondary analysis which disallows changes in study procedures, measurements, or variables examined in the collection of data. Use of self-report and single-item measurements may also exist as limitations but are not uncommon in research. Late stage adolescents comprised 80% of the sample; however, published works focused on birth trauma and subsequent mental health issues most frequently indicate mean ages well over 18, illustrating the uniqueness of this study. While small subsamples by age, age range was representative of the parent study; further, ethnic groups were found not to be significantly different by age. Analyses via ANOVAs produced small values in most cases which supports the need for further research. Additional research can provide comparison of young and older age adolescents as well as comparisons between adults and adolescents. Adolescents may have had mental health issues prior to birth but baseline mental health was unknown. Symptoms may have existed at birth or may have been retriggered with birth; yet, a classic systematic review noted the similarity in depression symptoms seen at the last trimester of pregnancy and first month postpartum (Gavin et al., 2005). Last, the variable infant complication was measured via gestational age alone since only 25 respondents disclosed birth weights due to the late addition of this item to the survey.

CONCLUSION

More Black adolescents than White or Hispanic teens reported a negative birth experience. Risk factors including racial/ethnic background, parity, cesarean surgery, and preexisting trauma and depression significantly contributed to the adolescent's experience; yet, no one risk factor contributed significant main effects to both birth perception and acute stress. Current findings suggest a need for assessments and directed interventions to begin prenatally and continue into postpartum to promote a positive childbirth experience, especially among Black childbearing adolescents. Demographics such as race/ethnic background have shown limited contribution to the adult's birth experience but may be more important to the adolescent's birth experience. Additional research is needed.

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DISCLOSURE

The authors have no relevant financial interest or affiliations with any commercial interests related to the subjects discussed within this article.

FUNDING

The author(s) received no specific grant or financial support for the research, authorship, and/or publication of this article.

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