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Depression Among a Sample of First Time Adolescent and Adult Mothers

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Abstract

PROBLEM—Little is known about the rates, correlates, and consequences of depression among a sample of first time mothers.

METHODS—4-site prospective study of the first 3 years of life among first children born to teen (n = 396), low resource (n = 169) and high resource adult (n = 117). Mothers were administered the Beck Depression Inventory prenatally and 6 months postpartum. Measures of maternal and child behaviors were taken at 8 months.

FINDINGS—Teen mothers displayed higher prenatal and 6-month rates of depression than low resource and high resource adult mothers, with significantly more teen mothers "consistently" depressed at the 2 time points than low resource and high resource adult mothers. Further, teen mothers were significantly more likely to become depressed after their babies were born than low resource or high resource adult mothers. Depression was negatively related to parenting practices and children's behavior. As depression increased, mothers scored less favorably in maternal warmth and sensitivity, contingent responsiveness, and general verbalness; children scored less favorably in warmth seeking toward their mothers.

CONCLUSION—Findings signify the need for counseling and nurse-based intervention and prevention services geared at preparing pregnant teens for motherhood.

Search terms/Key words

Depression; First time mothers; adolescent mothers

Research has shown that about 1 out of every 10 people in the United States suffer from depression, with women being affected at about twice the rate as men (National Institutes of Mental Health, 2008; Blehar & Oren, 1997). Of particular concern is the negative impact that depression has on parenting practices and behavior causing impairments in both the mother's and children's health and development. A lack of social support and elevated rates of stress increase the risk of depression among new mothers and likely contribute to negative parenting practices such as neglect (Lesser, Anderson, & Koniak-Griffin, 1998; East & Felice, 1990). Depressive symptomatology rates among indigent mothers of young children are in the range of 40-50 percent (Lanzi, Pascoe, Keltner, & Ramey, 1999; Orr,

James, Burns, & Thompson, 1989), with a 2- to 3-fold increased risk for depression in their children (Weissman et al., 2006). In about 80% of the cases, treatment can help alleviate symptoms of depression; however, about 2/3 of people do not seek help (Robins & Regier, 1990), and for many their symptoms go unnoticed by health practitioners due to a variety of reasons, including lack of recognition (Gjerdingen & Yawn, 2007).

In general, adolescent mothers, ranging in ages from 15 – 18 years, have been shown to be more depressed than first-time adult mothers ages 22–35 years (Whitman, Borkowski, Keogh, & Weed, 2001). The etiology of depression and how early and unplanned onset of parenthood may impact the course of depression and child neglect, however, are not well-documented (Zuckerman, Amaro, & Beardslee, 1987). It is often thought that situational depression is due to lack of knowledge, experience, and resources and that depression may impede individuals from "acting." The role of depression in adolescent mothers (including the onset, severity, and duration) has yet to be fully explored. It is clear that maternal depression is endemic in low-income families, and that within poverty, there are many stressors that potentially increase depression (Lanzi, Pascoe, Keltner, & Ramey, 1999). The current study explores the variation of adolescents' moods and parenting behavior through multiple measures of depression and parenting behaviors at multiple time periods. The parenting behaviors and mood fluctuations of adolescent mothers is compared to that of a matched adult sample of mothers. These comparisons are necessary to assess whether potentially neglectful parenting behavior is a function of age, stage, or experience.

Becoming an adolescent mother often takes the teen off society's normative life trajectory. The adolescent is no longer able (or as able) to participate in age-typical social events and sports, nor is she able to date as easily. The early onset of parenthood often inhibits the development of stable relationships and in many cases, the adolescent mother often faces the daunting responsibility of being a parent with minimal or no support from a partner (Brooks-Gunn & Furstenberg, 1986; Lesser, Anderson, & Koniak-Griffin, 1998). Whitman, Borkowski, Keogh, and Weed (2001) found that only 6% of infants born to adolescent parents received support from a father or male figure. The support provided by the adolescent mother's own mother is key as well (Lesser, Anderson, & Koniak-Griffin, 1998). Even though adolescent mothers assume a great deal of adult responsibility by becoming a mother, they are still children themselves and the grandparents continue to have an obligation to meet their daughters' needs. Further, it is often the case that adolescent mothers are the children of adolescent mothers themselves, who may not have adequate time, energy, and resources to provide support to their daughters. These combined factors often place the adolescent mother in an environment where there is little support for her needs, which in many cases, may translate into the adolescent mother becoming depressed and not being able to, or wanting to, provide for the needs of her newborn child.

In this paper, we explore the underlying factors associated with the prevalence of depression among a sample of first time adolescent and adult mothers. Using a diverse sample of mothers, we aim to document: (1) the rates of positive depression screens and their fluctuations and stability from the prenatal period through 6 months postpartum; (2) the most salient individual and family ecological factors associated with positive maternal depression screens; and (3) how maternal depression affects mother's parenting and children's development. This paper is one of several reports that utilize data from the *Parenting for the First Time Project* (Centers for the Prevention of Child Neglect, year), a landmark 4-site NICHD prospective longitudinal study of early predictors and precursors of parenting among first children born to adolescent and adult mothers. The study includes multiple measures including direct observation, interviews, self-report, and developmental assessments. Conclusions and recommendations for addressing depression among first-time mothers in terms of research and clinical practice are presented.

Method

Participants

Participants were drawn from the *Parenting for the First Time Project*, a longitudinal prospective study designed to understand sub-threshold levels of neglectful parenting among mothers and their first-born children. Mothers were asked to participate in the project if the pregnancy would be their first live birth and if they met age and education requirements (see below). Based on these criteria, 660 mothers were recruited during their pregnancies through primary care facilities in four communities that varied in size and ethnic composition including: South Bend, Indiana; Kansas City, Kansas and Missouri; Washington, D.C.; and Birmingham, Alabama. Mothers were recruited into three groups: teen (less than 19 years of age at the time of the child's birth, n = 396), low resource adults (older than 21 with less than 2 years of college, n = 169), and higher resource adults (older than 21 with 2 or more years of college, n = 117).

The overall sample of mothers ranged in age from 15 to 35 years at the time of the child's birth, with a mean age of 19.8 years; the average age of teen mothers was 17.5 years, low-resource adult mother's average age was 25.5 years, and high resource adult mother's average age was 27.9 years. Mothers reported a wide variety in monthly incomes from less than \$415 to above \$15,000. Each group had mothers with family incomes in the lowest range (i.e., less than \$415), however, the upper limit of family incomes differed between teen and low resource adult mothers with the highest income range reported for teen mothers' families at \$8,336–\$12,500 (mode = less than \$415) and for low-education mothers' families at \$4,166-\$5,000 (mode = less than \$415). The sample was 68.5% African American, 14.4% European American, 14.3% Hispanic/Latina, and 2.8% of other ethnicities. Nearly half of the children were male (46.5%).

Design and Procedures

Data were obtained during the prenatal period and continued throughout the first eight months after the child's birth. Initial in-person interviews were conducted during the mothers' last trimester of pregnancy. Data were then collected when the baby was 4, 6, and 8 months of age. Data were collected via in-person interviews, home observations, child assessments, and cell phone interviews. This work is the product of partnerships on several levels, such as: the close collaboration with prenatal health-care providers to identify and recruit mothers for the study; the multiple disciplines represented in the leadership of this project (i.e., nursing, public health, psychology, child development, and special education); and the close collaboration across four universities and diverse communities in the research design and implementation.

Measures

Clinical depression—The revised *Beck Depression Inventory* (BDI) was administered prenatally and when the baby was 6 months of age. It is a 21-item questionnaire that classifies depressive symptoms from "no" symptoms to "severe" symptoms. Respondents select one of several possible choices (ranging from 0 to 3) for each group of statements that most closely describes their feelings and moods across the previous 2 weeks (Beck, 1967). The items are then summed to get the total BDI score (ranging from 0 to 63). Research with adolescent populations has indicated that the BDI has an internal consistency between .80 and .90 and good test-retest reliability (Strober, Green, & Carlson, 1981). Beck Clinical Ratings of "No Depression", "Mild-Moderate Depression", "Moderate-Severe Depression", and "Severe Depression" were also examined. Using the original BDI two additional depression ratings were formed and used in analyses: (1) a dichotomous Beck Clinical Rating of "No Depression" versus "At Least Some Depression," and (2) a Beck Clinical

"Consistency and Fluctuation" rating as a way to gauge mothers' depression from pregnancy through the first 6-months of their children's lives.

Prenatal demographic measures—Prenatal demographic measures were used to examine associations between positive depression screens and specific factors thought to be linked with depression. Mothers were asked to report on their: (1) highest grade completed, (2) number of children living in their home, (3) number of adults living in their home, (4) whether they were currently employed, (5) and their ethnicity. It is important to mention that those reporting their ethnicities as being Asian, American-Indian, and Biracial/Multiracial were excluded from analyses because of scarcity in numbers.

Mother and child 8-month outcomes—Interactions between the mother and infant were observed and rated in the mother's home when the baby was 8 months of age. The coding system was developed by Landry, Smith, Miller-Loncar, and Swank (1997), and was modified for use with young infants and for a shorter duration. Interactions were observed for approximately 30 minutes, which included a 2-minute adjustment period, 4 5-minute observation periods, as well as periods between each observation to write notes and code the observed behaviors. The mothers were asked to do what they would normally do during that time of day and to keep the child within their visual range. Mothers received scores ranging from 1 to 5 (with 5 indicating more optimal parenting) on the following constructs: display of positive affect, warmth/sensitivity, contingent responsiveness, physical intrusiveness, punitive tone, verbal content, and general verbalness (amount of time spent talking to child). The general verbalness category was not part of the original observation developed by Landry and colleagues (1997), but was added for the present study. Children were rated on the same scale on the constructs of warmth seeking, behavioral regulations, and attention/ arousal. Interviewers were trained to a minimum of 80% concordance with a master coder on both video taped and on-site interactions for all categories in the coding scheme. This measure has an internal consistency coefficient of .81, with reliabilities ranging from .80 to . 84 (Hammond, Landry, Swank, & Smith, 1999).

Results

Data analyses were conducted as follows: Descriptive statistics summarized rates of depression for the total sample of mothers during the prenatal period and 6 months after the birth of their first child. Chi Square analyses were then used to compare rates of prenatal and 6-month clinical depression across teen, low resource adult, and high resource adult mothers. Next, analyses of variance techniques (ANOVAs) were used to document whether there were differential mean depression scores among the three groupings of first time mothers (i.e., teen, adult low resource, and adult high resource). Fourth, we examined the stability of positive depression screens over the course of the first 6-months of parenthood for the total sample and for each of the three groupings of mother separately. Fifth, Chi-Square analyses were used to examine relationships between prenatal and 6-month "No Depression" versus "Some Depression" on the mother's highest grade completed, number of children living in the home, number of adults living in the home, and whether she was employed. These variables were chosen because each has been found in the extant literature to predict depression (i.e., Lanzi, Pascoe, Keltner, & Ramey, 1999). Lastly, regression analyses were conducted to examine the predictive ability of prenatal BDI scores on 8month maternal and child outcomes.

Clinical Rates of Depression

At the outset, we sought to describe Beck Clinical ratings of depression for the total sample of first-time mothers and then compare these rates between each grouping of mothers (i.e.,

teen, adult low resource, adult high resource). Prior to the birth of their children, 42% of the total sample where characterized as having no depression, 39% experienced mild to moderate depression, 16% experienced moderate to severe depression, and 3% experienced severe depression; whereas six months after the birth of their children, 66% were characterized as having no depression, 24% experienced mild to moderate depression, 8% experienced moderate to severe depression, and 3% experienced severe depression.

Table 1 displays the percentage of prenatal and 6-month Beck Clinical ratings for the total sample and for teen, low resource adult, and high resource adult mothers separately. Chi Square analyses comparing rates of prenatal and 6-month clinical depression as a function of mother group (i.e., teen, low resource adult, and high resource adult) revealed significant prenatal (χ^2 (6) = 15.05, p<.05) and 6-month (χ^2 (6) = 21.36, p<.01) differences in rates of clinical depression. Data indicate that mothers were significantly different in their rates of clinical depression with teen mothers having significantly higher prenatal and 6-month rates of clinical depression followed by low resource adult mothers. High resource adult mothers were significantly less likely to display rates of prenatal and 6-month clinical categories of "moderate to severe depression" and "severe depression" than both teen and low resource adult mothers.

Depression as a Function of Mother Group

We next assessed whether prenatal and 6-month mean depression, as defined by BDI scores, differed among teen, low resource adult, and high resource adult mothers. An overall significant difference was documented for mean depression scores during the prenatal period, F(2, 657) = 5.62, p < .01. Post hoc contrasts were conducted using the Bonferroni procedure. Significant differences were found when comparing prenatal mean depression scores between teen (M = 13.29, SD = 8.02) and low resource adult mothers (M = 11.39, SD = 7.87; p < .05), and teen and high resource adult mothers (M = 11.08, SD = 76.15; p < .05). A significant difference was also documented for mean depression scores at 6 months postpartum, F(2, 372) = 9.30, p < .01. As was documented for prenatal mean depression scores, significant mean differences were found when comparing teen mothers (M = 10.18, SD = 8.22) to both low resource (M = 7.59, SD = 6.85; p < .05) and high resource adult mothers (M = 6.16, SD = 4.51; p < .01). Overall, teen mothers had significantly higher mean depression scores than both low and high resource adult mothers prenatally and six months postpartum.

Stability of Maternal Depression from Pregnancy through Baby's First Six Months of Life

An additional research goal was to characterize mothers' positive depression screens from the last trimester of pregnancy through the baby's first 6 months of life. Table 2 displays the percentage of those who remained the same in their depression screens and those who fluctuated (i.e., Consistent No Depression, Consistent Depression, No Longer Depressed, and Became Depressed) from the prenatal period through 6-months postpartum as a function of mother group. A significant association was found between consistency and fluctuation of depression and mother group, χ^2 (6) = 18.52, p<.01. An displayed in Table 2, a significantly higher percentage of teen mothers were characterized as having "Consistent Depression" as opposed to both low and high resource adult mothers. Furthermore, a significantly lower percentage of high resource adult mothers were characterized as "Became Depressed" than teen and low resource adult mothers.

The Relationship Between Dichotomous Beck Clinical Ratings and Maternal Factors

Next, we explored the association between prenatal and 6-month classifications of "No Depression" and at least "Some Depression" with maternal factors such as highest grade completed, number of children living in the home, number of adults living in the home, and employment status. Table 3 displays the percentage of those who experienced some prenatal

depression versus no depression as a function of maternal factors for teen moms, adult low resource moms, and high resource moms. Chi-Square analyses revealed a moderate association between prenatal depression status and number of children living in the home for the total sample, χ^2 (3) = 7.44, p=.06, suggesting that as the number of children in the home increases, so does one's propensity to have at least some form of depression1.

None of the individual and ecological factors analyzed were associated with prenatal clinical depression status for low and high resource adult mothers. However, for teen mothers a significant association was found between prenatal clinical depression status and number of adults living in the home, $\chi^2(1) = 8.18$, p<.01. Percentages suggest that teen mothers possessing some form of depression are more likely to have only one adult living in the home as opposed to two or more. In addition, a moderate association was documented between prenatal depression and number of children living in the home ($\chi^2(3) = 7.37$, p=.06). Data suggest that as the number of children increased, teen mothers were more likely to report some form of depression.

Though not shown in Table 3, a significant Chi-Square was found for the percentage of "No Depression" versus "Some Depression" as a function of mother group, χ^2 (2) = 9.39, p<.01. For teens, 22% had no prenatal depression whereas 37% had some depression. Twelve percent of low resource adult mothers had no prenatal depression and 12% had some depression, whereas 8% of high resource adult mothers had no depression and 9% had some depression prior to the birth of their child. Consequently, teen mothers were significantly more likely to have some form of prenatal depression than both low and high resource adult mothers.

Analyses for 6-month clinical depression status and maternal factors found an overall significant association between depression and employment status for the total sample of mothers, χ^2 (1) = 5.07, p<.01. Percentages suggest that working mothers were significantly more likely to report no symptoms of depression (47.4%) than mothers who were not working (18.7%) 6-months after the birth of their child. No significant associations were documented between 6-month clinical depression status and maternal factors for teen, low resource adult, and high resource adult mothers when examined individually. However, a significant Chi-Square was found for the percentage of "No Depression" versus "Some Depression" as a function of mother group, χ^2 (2) = 15.25, p<.001. For teens, 33% had no prenatal depression whereas 24% had some depression. Sixteen percent of low resource adult mothers had no prenatal depression and 6% had some depression, whereas 17% of high resource adult mothers had no depression and 4% had some depression 6-month postpartum. As was documented during the prenatal period, teen mothers were significantly more likely to have some form of 6-month clinical depression than low and high resource adult mothers.

Depression Predicting 8-Month Mother and Child Outcomes

Our final research objective was to document whether depression, as defined by BDI Total scores, predicted mother and child 8-month outcomes. Regression analyses were conducted separately for maternal parenting behaviors such as positive affect, warmth and sensitivity, contingent responsiveness, physical intrusiveness, punitive tone, verbal content, and general verbalness, as well as children's warmth seeking, behavioral regulation, and attention and arousal. For the total sample of mothers, analyses indicated that depression explained a significant portion of unique variance in maternal warmth and sensitivity, 4% ($\beta = -19$, p < 1).

 $^{^{1}}$ Due to their age, teen mothers are more likely than adult mothers to live with their immediate family; typically resulting in a higher number of children and/or siblings living in the home.

01), contingent responsiveness 3% ($\beta = -18$, p < .01), general verbalness 4% ($\beta = -17$, p < .01), and children's warmth seeking 2% ($\beta = -13$, p < .01). As depression increased, both mothers and children scored less favorably in these particular domains.

For teen mothers, depression explained a significant portion of unique variance in maternal contingent responsiveness, 2% ($\beta=-13, p<.05$), and children's attention and arousal, 2% ($\beta=-15, p<.05$). Depression moderately explained a significant portion of unique variance in teen mothers' warmth and sensitivity, 2% ($\beta=-13, p=.06$) and children's attention and arousal, 2% ($\beta=-15, p=.06$). For low resource adult mothers, depression explained a significant portion of unique variance in maternal contingent responsiveness, 2% ($\beta=-13, p<.05$), and moderately explained variance in maternal warmth and sensitivity, 2% ($\beta=-13, p=.06$). Depression explained a significant portion of unique variance in high resource adult mothers' warmth and sensitivity, 5% ($\beta=-23, p<.05$), verbal content, 6% ($\beta=-24, p<.05$), and general verbalness, 9% ($\beta=-30, p<.01$). For each grouping of mothers, data suggest that as depression increased, both mothers and children scored less favorably in each significant domain.

Discussion

This study sought to document the prevalence, correlates, and consequences of depression among a sample of first time adolescent and adult mothers. Overall, data suggest that mothers were significantly different in their rates and mean scores of depression, with teen mothers having significantly higher prenatal and 6-month rates of clinical depression followed by low resource adult mothers and high resource adult mothers, respectively. The prevalence of depression was likely to increase as the number of children living in the home increased. Regression analyses documented that as depression increased, mothers displayed less positive parenting practices and their children were rated as displaying more maladaptive behaviors toward their mothers.

Interestingly, rates of postpartum clinical depression reported for teen mothers (3.8–26.9%), as opposed to adult mothers (0–19.8%), were slightly higher than the rates of postnatal depression documented in the extant literature as ranging from 10–20% (Thorpe, 2007), suggesting that teenaged mothers emotionally adjust to and experience the transition to motherhood differently than adult mothers. In our project, the high rates of clinical depression may, in turn, help to explain the prevalence of neglectful behaviors, abuse, and subsequent child maladaptive behaviors documented among teen mother-child dyads (i.e., Borkowski et al., 2002; Cummings, Davies, & Campbell, 2000). These findings signify the need for counseling and nurse-based intervention and prevention services geared at preparing pregnant teens for motherhood through early and ongoing supportive services including domains focused on positive coping and parenting skills (Puskar, Sereika, & Tusaie-Mumford, 2003).

Overall, our findings are similar to other studies indicating the importance of support for all first time mothers. Many first time mothers, particularly teenage mothers, are characterized as having poor family structures, a lack of social support, and elevated rates of stress that each raises the risk of postpartum depression (Whitman et al., 2001; Gjerdingen & Yawn, 2007). For these particular reasons, every new mother requires plenty of support from family, friends, and when possible community sources such as health practitioners and nurses. Through its stress-buffering effects, social support has been found to serve as a mediating influence on psychological well-being and maternal behaviors, which in turn has the potential to positively impact the developing mother-child relationship (Lesser, Anderson, & Koniak-Griffin, 1998).

Implications for research

It has been well documented that identification and proper treatment either through counseling or cognitive behavioral therapy (Puskar et al., 2003) can significantly decrease the prevalence of depression and it subsequent negative impact on children. What is lacking in the current literature; however, is consensus among practitioners on the ideal screening tool to use in order to diagnose depression (Gjerdingen et al., 2003) and the best practices to be used by nurses to diagnose and administer depression screening tools (Connelly,Baker, Hazen, & Mueggenborg, 2007). Gjerdingen and colleagues (2003) suggest the need for studies utilizing large representative samples to specifically address this problem.

Additionally, there are many theories about the multiple factors leading to adolescent pregnancy among girls, but there are few researchers that systematically study the role of personal responsibility, affective factors such as maternal depression, and the nature of the adolescents' social support system at the time of becoming a parent. Findings from the current research suggests that there is not only a need for studies to identify ideal depression screening tools, but also a need for research that incorporates longitudinal inquiry and multiple assessment methods to clarify the nature and developmental significance of personal responsibility, depression, and social support in parenting behavior among adolescent mothers.

The changes in the demography of American families over the past four decades have had a profound effect on the nature and stability of adolescents' social ecology. This study is one of the few developmental studies that is multi-disciplinary and multi-site of first-time adolescent and adult mothers. The identification of more effective strategies for adapting to the developmental transition to parenthood may be valuable in helping adolescent mothers cope with stressful demands and thus avoid depressive symptomatology and potentially negative parenting behavior. Theoretically, parents in diverse cultural and family settings have comparable needs for a strong and continuous social support system (Thorpe, 2007); however, the precise means for meeting these needs varies as a function of a family's broader social ecology, intergenerational influences, and experiences.

Implications for nursing practice

The issue of translation from research to practice is an important one for society and most particularly important for children and their families. Research by its nature provides incremental evidence related to understanding and intervention. It is essential to identify limitations associated with methodology and to exercise caution in stating conclusions and extending generalizability from early findings. Nevertheless, practice has typically been poorly informed by data that can be translated in context to enhance assessment, planning, intervention and evaluation. Gjerdingen and colleagues (2007) suggest that for proper screening to have its most beneficial impact on depression, "it needs to be combined with systems-based enhanced depression care that provides accurate diagnoses, strong collaborative relationships between primary care and mental health providers, and longitudinal case management, to assure appropriate treatment and follow-up" (p.280). What is most disconcerting is that although screening tools have been developed and proven to successfully diagnose depression, a substantial number of health care providers report that they are not confident in administering these tools and diagnosing maternal depression (Connelly, Baker, Hazen, & Mueggenborg, 2007). One advantage of this study is that it illuminates a data driven approach and offers insights for future research and nursing practice. Nurses are prominent front line practitioners in a variety of roles where the manifestation of depression can be expressed. The opportunity to assess depression in this vulnerable population is magnified by the nature of contacts nurses have with young mothers and their children. It is imperative that clinicians and health care providers utilize

evidence-based practices for supporting mothers post delivery, such as during well-child and postpartum visits, and through proper screening and treatment procedures.

Key findings of the current study point most importantly to the prevalence of depression for young mothers and the significant higher frequency of mild to moderate and moderate to severe depression among the most vulnerable groups, teen mothers and adult low resource mothers. The mechanisms for these relationships are likely to be multifaceted and bi-directional. Clinicians who work with children benefit from awareness about the high prevalence and cyclical nature of depression and depressive symptoms among "at-risk" mothers. Further, the potential effects of depression on caregiving constitute a case for assessment and monitoring. Indeed maternal depression did predict parenting behaviors such as maternal warmth and sensitivity, contingent responsiveness, general verbalness, and children's warmth seeking. The fact that teen mothers, in particular, performed less well in contingent responsiveness as a function of depression is critical to child well being.

It is also useful to note that more children in the home—which may certainly be confounded with lower socioeoconomic status—correlates with higher rates of depression. However, density per se appears not to be the most salient issue since more adults in the home serve a protective function for mothers of young children who are susceptible to depression. For teen mothers who have fewer experiences and their own developmental milestones to overcome, risk is mediated by presence of other adults in the home who may serve as a source of social support. Clinicians need to be more attuned to family and home structure in order to note risk, foster natural help, and recognize and celebrate attributes associated with resilience.

Programs and policies must focus on parents' mental health and their ability to provide their children with adequate learning opportunities in the home environment. Specifically for teen mothers, Lesser and colleagues (1998) suggest that is necessary for nurses to identify depressive symptoms prior to the birth of the infant and encourage them to seek counseling. Accordingly, it becomes particularly important for community health nurses, who are in frequent contact with mothers prior to the birth of the children to offer parent coaching specifically to those mothers most likely to display symptoms of depression. The early identification of maternal depressive symptoms and the on-going development of individualized intervention and effective prevention strategies and treatments can have highly significant maternal and child health implications.

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References

Beck, AT. Depression: Causes and treatment. Philadelphia: University of Pennsylvania Press; 1967. Blehar MC, Oren DA. Gender differences in depression. Medscape Womens Health. 1997 Feb.2(2) Borkowski, JG.; Bisconti, T.; Weed, K.; Willard, CC.; Keogh, DA.; Whitman, TL. The adolescent as parent: Influences on children's intellectual. academic, and socioemotional development. In: Borkowski, JG.; Landesman Ramey, S.; Britstol-Power, M., editors. Parenting and the child's world: Influences on academic, intellectual. and social-emotional development. Mahweh, NJ: Elrbaum; 2002. p. 161-184.

Brooks-Gunn J, Furstenberg FF. The children of adolescent mothers: Physical, academic, and psychological outcomes. Developmental Review. 1986; 6:224–251.

- Centers for Prevention of Child Neglect. Community Support Inventory. Centers for the Prevention of Child Neglect: University of Notre Dame; 2000.
- Connelly CD, Baker MJ, Hazen AL, Mueggenborg MG. Pediatric health care providers' self-reported practices in recognizing and treating maternal depression. Pediatric Nursing. 2007; 33(2):165–172. [PubMed: 17542239]
- Cummings, EM.; Davies, PT.; Campbell, SB. Developmental Psychopathology and Family Process: Theory, Research, and Clinical Implications. New York: Guilford Press; 2000.
- East PL, Felice ME. Outcomes and parent-child relationships of former adolescent mothers and their 12-year old children. Journal of Developmental and Behavioral Pediatrics. 1990; 11:175–183. [PubMed: 2212031]
- Gjerdingen DK, Yawn BP. Postpartum depression screening: Importance, methods, barriers, and recommendations for practice. Journal of the American Board of Family Medicine. 2007; 20:280–288. [PubMed: 17478661]
- Hammond MV, Landry SH, Swank PR, Smith KE. Relation of mothers' affective developmental history and parenting behavior: Effects on infant medical risk. American Journal of Orthopsychiatry. 1999; 70:95–103. [PubMed: 10702854]
- Landry SH, Smith KE, Miller-Loncar CL, Swank PR. Predicting cognitive-linguistic and social growth curves from early maternal behaviors in children at varying degrees of biological risk.

 Developmental Psychology. 1997; 33:1040–1054. [PubMed: 9383626]
- Lanzi RG, Pascoe J, Keltner B, Ramey SL. Correlates of maternal depressive symptoms in a national Head Start Program sample. Archives of Pediatrics and Adolescent Medicine. 1999; 153:801–807. [PubMed: 10437751]
- Lesser J, Anderson NLR, Koniak-Griffin D. "Sometimes you don't feel ready to be an adult or a mom:" The experience of adolescent pregnancy. Journal of Child and Adolescent Psychiatric Nursing. 1998; 11(1):7–16. [PubMed: 9611540]
- National Institute of Mental Health. [Retrieved March 12, 2007] Depression: What Every Woman Should Know. 2007. from http://www.nimh.nih.gov/publicat/depwomenknows.cfm
- Orr ST, James SA, Burns BJ, Thompson B. Chronic stressors and maternal depression: Implications for prevention. American Journal Public Health. 1989; 79:1295–1296.
- Puskar K, Sereika S, Tusaie-Mumford K. Effect of Teaching Kids to Cope (TKC) program on outcomes of depression and coping among rural adolescent. Journal of Child and Adolescent Psychiatric Nursing. 2003; 16(2):71–80. [PubMed: 12873069]
- Robins, LN.; Regier, DA. Psychiatric Disorders in America: The Epidemiologic Catchment Area Study. New York: The Free Press; 1990.
- Strober M, Green J, Carlson G. Reliability of psychiatric diagnosis in hospitalized adolescents. Interrater agreement using DSM-III. Archives of General Psychiatry. 1981; 38:141–145. [PubMed: 7212940]
- Weissman MM, Pilowsky DJ, Wickramaratne PJ, Talati A, Wisniewski SR, Fava M, et al. Remissions in Maternal Depression and Child Psychopathology: A STAR*D Report. Journal of the American Medical Association. 2006; 295:1389–1398. [PubMed: 16551710]
- Whitman, TL.; Borkowski, JG.; Keogh, DA.; Weed, K. Interwoven lives: Adolescent mothers and their children. Mahwah, New Jersey: Lawrence Elbaum Associates; 2001.
- Zuckerman BSJ, Amaro H, Beardslee W. Mental health of adolescent mothers: The implications of depression and drug use. Journal of Developmental Behavior Pediatrics. 1987; 8:111–116.

Table 1Percentage of Prenatal and 6-Month Beck Clinical Ratings as a Function of Mother Group.

	No Depression	Mild-Moderate Depression	Moderate–Severe Depression	Severe Depression
		Prenatal		
Teen	36.9	41.8	17.2	4.1
LR Adult	48.7	32.9	15.8	2.5
HR Adult	49.1	40.2	10.7	0
Total	41.8	39.4	15.8	3.0
		6-Month		
Teen	58.0	26.9	11.3	3.8
Adult LR	73.2	19.5	4.9	2.4
Adult HR	80.2	19.8	0	0
Total	66.1	23.7	7.5	2.7

Table 2Percentage of Consistency and Fluctuation of Beck Clinical Ratings Over the Course of 6 Months as a Function of Mother Group.

	Consistent No Depression	Consistent Depression	No Longer Depressed	Became Depressed
Teen	25.4	32.1	33.0	9.6
Adult Low Resource	33.3	16.7	41.0	9.0
Adult High Resource	44.3	15.2	35.4	5.1
Total	31.1	25.1	35.2	8.5

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Table 3

Percentage of Prenatal Beck "None" versus "Some" Clinical Depression Associated with Maternal Factors.

	Te	Teen	Low R	Low Resource Adult	High R Ad	High Resource Adult	T_0	Total
	None	Some	None	Some	None	Some	None	Some
Highest Grade								
Didn't complete high school	22.3	55.4	17.5	16.7	0	0	15.1	28.6
High school diploma	7.4	13.5	25.0	24.2	1.1	1.1	11.8	14.0
At least some college	0	1.4	8.3	8.3	44.9	52.8	14.0	16.5
# of Children Living in the Home								
1	17.1	25.9	33.3	33.3	52.2	30.4	21.9	27.2
2	16.0	17.9	18.8	4.2	4.3	8.7	15.6	15.3
3	4.2	13.7	6.3	0	0	4.3	4.2	11.1
> = 4	2.3	3.0	2.1	2.1	0	0	2.1	2.7
# of Adults Living in the Home								
1	18.8	48.2	35.8	41.5	47.8	47.8	29.6	46.2
>= 2	15.6	17.4	10.6	12.2	1.1	3.3	11.2	13.0
Employed								
Yes	33.9	56.9	36.6	36.9	20.5	20.5	32.2	45.9
No	2.9	6.3	12.1	14.6	28.6	30.4	9.5	12.4

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