JOGNN CLINICAL STUDIES

Psychosocial Adjustment During Pregnancy: The Experience of Mature Gravidas

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Objective: To determine if gravidas ages 35 years and older have greater conflict in adapting to pregnancy than do younger gravidas.

Design: Static group comparison.

Setting: Prenatal care facilities and prenatal education classes.

Participants: Sixty-four older gravidas (35 years and older) and 46 younger gravidas (32 years and younger) who were in their 3rd trimester of pregnancy.

Main Outcome Measure: Lederman Prenatal Self-Evaluation Questionnaire II, which contains seven scales measuring conflict in psychosocial tasks during pregnancy.

Results: Older gravidas had significantly less fear of helplessness and loss of control in labor than did younger gravidas. Age and education but not parity may account for this finding.

Conclusions: Age and education may balance the additional concerns older gravidas may have about pregnancy and allow older gravidas to adjust to pregnancy as well as younger women do. *JOGNN, 26,* 206–211; 1997.

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Although most pregnancies occur in women before the age of 35, a growing number of women ages 35 years and older are giving birth. Not only are there more women who are in their later reproductive years, but many of them have delayed childbearing. The birth rate to women ages 35–39 years increased 4% in 1992; there was a 60% increase between 1980 and 1990 (Ventura, Martin, Taffel, Mathews, & Clarke, 1994). The rise in population of women in this age group along with increasing birth rate combined to produce the highest annual total births for this age group since 1961 (Ventura et al., 1994). Since 1980, birth rates also rose 50% to 51% for women ages 40–44 years (Ventura et al., 1994). Many women defer childbearing to find a suitable partner, pursue an education or career, or establish financial security (Robinson, Garner, Gare, & Crawford, 1987). For approximately 15% of women ages 35 years and older, infertility also postpones childbearing (Robinson et al., 1987).

Historically, older gravidas were considered at greater risk for maternal and fetal complications. Many studies conducted before 1970 had methodologic flaws but contributed to folk wisdom and past medical opinion that pregnancy and delivery were dangerous to the older mother and her fetus (Mansfield, 1986). More recent research that considers confounding variables associated with age confirms some additional risk for mature gravidas, but not of the magnitude that earlier work suggested. For women in their later reproductive years, fecundity is decreased and genetic abnormalities increased (Blickstein, Lancet, & Kessler, 1987; Hollander & Breen, 1990; Robinson et al., 1987; Toner & Flood, 1993). Once pregnant, older gravidas have a higher incidence of early pregnancy loss, pregnancy-induced hypertension, and gestational diabetes than do younger gravidas (Ales, Druzin, & Santini, 1990; Berkowitz, Skovron, Lapinski, & Berkowitz, 1990; Kirz, Dorchester, & Freeman, 1985; Lehman & Chism, 1987). Cesarean birth is more frequent for mature gravidas. The medical indications for cesarean delivery are no more prevalent, but physicians may be more inclined to deliver an older gravida by cesarean sec-

tion (Berkowitz et al., 1990; Gordon, Milberg, Daling, & Hickok, 1991; Kirz et al., 1985; Lehman & Chism, 1987; Peipert & Bracken, 1993; Spellacy, Miller, & Winegar, 1986; Taffel, Placek, & Kosary, 1992). Neonatal mortality is no greater for newborns of healthy older mothers (Berkowitz et al., 1990; Kirz et al., 1985).

Psychosocial Challenges

In addition to some greater medical risks associated with age, the older gravida also faces psychosocial challenges. All women experience some conflict during pregnancy as their perspective shifts from being a pregnant woman without a child to being a woman with a child. These two perspectives may be discordant. The process of making the transition requires the woman to work through several tasks to develop a maternal role identity. Lederman (1984) has identified seven developmental tasks during pregnancy that aid in adjusting to this change. Initially, the woman must accept the idea of being pregnant. Reviewing her relationship with her own mother is important as she identifies her own mothering role. Examining her relationship with her husband assists in preparing for parenthood. Concern for herself and her infant stimulates the gravida to prepare for labor. Fear of pain, helplessness, and loss of control helps her to plan for labor by reading, watching videos, and talking with other women. These tasks can be fraught with conflict that produces anxiety and tension and impedes progress in her psychosocial adaptation during pregnancy. When conflict is minimal, the gravida progresses toward a maternal parenting role (Lederman, 1984).

In addition to some greater medical and biologic risks, the older gravida also faces psychosocial challenges.

An older gravida who has established a career and financial security or completed advanced education may find the transition to parenthood filled with conflict. Her role before pregnancy is very different from her future role of woman with child. Accepting a pregnancy may be difficult because she must alter a lifestyle she has worked years to establish. Because the gravida is older, her mother is more likely to be older or deceased. Consequently, the gravida's mother may not be available to offer support to her daughter during pregnancy. Medical and biologic risks may escalate a mature gravida's concern for her own and her infant's well-being. The additional prenatal testing that an older gravida receives may escalate her concerns (Harker & Thorpe, 1992; Mansfield & Cohn, 1986). Fear of pain, helplessness, and loss of control during labor may be especially frightening for the older gravida who has developed control in her life through educational and career choices. Winslow (1987) found that control and planning during pregnancy were very important to older primiparae.

Although an older gravida may have more concerns about pregnancy, she also may be better able to manage them and adjust to pregnancy with less conflict. Life experience develops skills and knowledge that are valuable for adapting to pregnancy and motherhood. Persistence and flexibility are attributes that are developed with experience and may be useful for working through the psychosocial tasks of pregnancy (Gottesman, 1992; Mercer, 1986; Randell, 1993).

Examining the relationship of age and psychosocial adaptation to pregnancy was the purpose of this study. Do gravidas ages 35 years and older have greater conflict than younger gravidas in their adaptation to a maternal role during pregnancy? Are differences in older gravidas' prenatal adaptation based on parity?

Methods

In testing the effect of age on prenatal adaptation, a static group comparison design was used (Campbell & Stanley, 1963). Women who were older, mature gravidas (ages 35 years and older) were compared with gravidas who were younger (ages 32 years and younger). Women ages 33 and 34 years were excluded from the sample so that the two groups would be distinct and have differences in their mean ages for statistical purposes.

A convenience sample of women who were in their 3rd trimester of pregnancy (27–42 weeks gestation) was recruited from prenatal care providers and childbirth education classes. In the 3rd trimester, most women are completing the tasks that lead to their self-identification as a mother. Nurses who worked in prenatal care offices and prenatal education classes were told of the study, and their cooperation was invited. Women who met the study criteria were approached by nurses in their prenatal health care facility or prenatal education class. Women who expressed interest in the research program received a letter explaining the study. If they agreed to participate, they completed questionnaires attached to the introductory letter. Consent to participate was suggested by completion and return of the questionnaires. Women who chose not to participate are unknown, so no information is available about them. The study was approved by the nursing research committees and insti-

tutional review boards of both local hospitals that provide obstetric care in the southwest Michigan county from which the sample was recruited.

Measurement of Conflict in Pregnancy

Participants completed two questionnaires. One elicited self-reported demographic and obstetric information. The second questionnaire, the Prenatal Self-Evaluation Questionnaire II (PSEQ), was developed by Lederman, Lederman, Work, and McCann (1979) and was used with permission. The PSEQ is a 79-item instrument that measures conflict in the seven developmental tasks of pregnancy: well-being of self and baby, acceptance of pregnancy, identification of a motherhood role, preparation for labor, fear of helplessness and loss of control in labor (HLCL), relationship with her mother, and relationship with her husband (RH). All items were scored on a four-point Likert scale with agreement responses ranging from very much so to not at all. The PSEQ was scored according to the author's instructions, with each item included in one of the seven scales or developmental tasks. Higher scores indicated greater conflict. If a participant did not answer a question, no sum was computed for that scale and it was treated as missing during data analysis. Several participants were single and completed all questions that referred to "husband." The relationship with husband scale was computed if all statements were answered. It is unknown whether they assumed their partner or father of the baby to be the "husband." Therefore, reliability of the RH scale may be compromised. This instrument has been used widely. Reliability ranges from .77 to .93 for whites, .76 to .92 for blacks, and .72 to .88 for Hispanics, using Cronbach's alpha (R.P. Lederman, personal communication, March 3, 1992). In this study, the scales had reliability, using Cronbach's alpha, ranging from .77 to .92. Reliability was .78 to .91 for the mature group and .73 to .94 for the younger group. Reliability may have been decreased on the RH scale because of confusion single women had when completing the questionnaire.

Data were entered and analyzed on the Statistical Package for the Social Sciences (1993). Interval level data were analyzed using *t* tests and analysis of variance; chi-square tests were used for nonparametric data. For all statistical tests, an alpha level of .05 was designated for significance.

Results

The older group ($n = 64$) of women were ages 35–42 years, and the younger group ($n = 46$) were ages 20–31 years ($t = 18.68$, $df = 69.37$, $p < .001$) (see Table 1). Most of the older gravidas had attended some college (85.9%). More older gravidas had attended graduate school ($x^2 = 7.27$, $df = 2$, $p \leq .03$). Parity ranged from 0 to 5, with 46.9% of the mature gravidas giving birth for the first time, although only 32.8% were experiencing their first pregnancy. More of the younger women were primiparae (78.3%) than were the mature women (46.9%), and the difference was statistically significant ($t = 4.79$, $df = 105.89$, $p < .001$). Most participants were married, 84.4% in the older group and 82.6% in the younger group. Of the older gravidas, 79.7% were employed compared with 78.3% of the younger gravidas. Most had planned their pregnancy. Gestational age at the time of testing ranged from 27 to 41 weeks, and the mean gestational age was not significantly different for the two groups ($t = 1.5$, $df = 106.9$, $p = ns$). There was no significant difference in the groups in their planning of the pregnancy, marital status, or gestational age. In self-reporting their current obstetric health status, the two groups were not statistically different.

When the PSEQ scales for the two groups were compared, HLCL was the only scale for which the two

TABLE 1
Demographic Characteristics of Older and Younger Gravidas

Demographic Variable	*Gravidas ≥ 35 Years (n = 64)*	*Gravidas ≤ 32 Years (n = 46)*
Mean (*SD*) pregnancies	2.59 (1.48)**	1.50 (.91)
Mean (*SD*) births	1.03 (1.23)**	.26 (.54)
Mean (*SD*) gestational age	32.48 (4.08)	31.52 (2.63)
Mean (*SD*) age	37.13 (2.14)**	26.35 (3.47)
Marital status		
Divorced	7	2
Married	54	38
Single	2	6
Widowed	1	0
Employment		
Yes	51	36
No	13	10
Highest education		
High school	9	8
Some college/degree	32	32
Some graduate school	23*	6
Planning of pregnancy		
Yes	37	30
No	27	16

* $p < .05$. ** $p < .001$.

groups had significantly different means ($t = -2.90$, $df = 105$, $p = .005$) (see Table 2). Younger gravidas had higher scores than older gravidas, indicating that the younger gravidas had a greater fear of helplessness and loss of control during their future labor and birth. Because more younger women than older women were primigravidas, it was thought that gravidity might explain the differences between the groups. However, when younger women were compared by gravidity, no significant difference was found in the means for the HLCL scale ($t = -.36$, $df = 39$, $p = ns$). Likewise, the HLCL scores of older multiparae indicated no difference ($t = 1.12$, $df = 62$, $p = ns$) when compared with older primiparae. When analysis of variance was used, age had a significant main effect ($F = 6.37$, $df = 1$, $p < .02$), but the effect of parity was not significant ($F = .64$, $df = 1$, $p = ns$) on HLCL. The two-way interaction between age and parity was not statistically significant ($F = .57$, $df = 1$, $p = ns$).

TABLE 2
Prenatal Self-Evaluation Questionnaire Scales

PSEQ Scale	*Mean (SD) for Older Gravidas*	*Mean (SD) for Younger Gravidas*
Well-being of self and baby	17.17 (4.55) ($n = 59$)	18.16 (4.75) ($n = 44$)
Acceptance of pregnancy	22.19 (6.17) ($n = 63$)	22.23 (7.01) ($n = 44$)
Identification of the motherhood role	21.16 (4.09) ($n = 61$)	20.89 (5.29) ($n = 46$)
Preparation for labor	17.49 (5.20) ($n = 61$)	18.80 (4.78) ($n = 45$)
Fear of helplessness and loss of control in labor	16.77 (4.35) ($n = 61$)	19.13 (4.13)* ($n = 46$)
Relationship with mother	18.55 (6.62) ($n = 58$)	16.70 (6.57) ($n = 43$)
Relationship with husband	16.68 (5.19) ($n = 59$)	16.02 (5.35) ($n = 43$)

* $p < .005$.

Discussion

In this sample, older gravidas adapted as well as younger gravidas on all PSEQ scales except fear of helplessness and loss of control in labor. Greater fear of helplessness and loss of control in labor was exhibited in the younger gravidas. Because fewer of the younger women had given birth previously, lack of experience in childbirth could account for this finding. However, when parity was compared in both groups, no significant difference was found. Having given birth before did not reduce the conflict in HLCL for multigravidas in this sample. Although a multiparous woman may know better what to expect, she may also better appreciate the tremendous task awaiting her. Nulliparae may have unrealistic expectations about birth and may over- or underestimate the labor experience. Never having faced this challenge, a nullipara also may have less confidence. If experience in labor provides some advantage to multiparae, the benefit is not significant in reducing the conflict mature multiparae feel when approaching their next labor.

Younger gravidas had a greater fear of helplessness and loss of control regarding their future labor and birth.

Life experience and a larger knowledge base may be a benefit for mature women in adapting to a maternal role. Women who have had experience in life know that challenges are encountered and should be expected (Meisenhelder & Meservey, 1987). The "unexpected" is expected by the mature gravida who has faced uncertainty before and met its challenge. Mercer (1986) reported that women ages 30 years and older had greater flexibility and personality integration than younger mothers. Endurance in the face of obstacles is another attribute that mature primiparae were found to exhibit (Randell, 1993). These attributes may help to balance the additional concerns and demands that mature gravidas face during pregnancy. This is consistent with the results of a study that found mature gravidas were less distressed by normal physical changes and symptoms of pregnancy (Robinson et al., 1987). Life experience may prepare the older gravida to expect that problems may arise in even the best of circumstances. Previous experience in solving other problems may give her confidence in her ability to handle whatever may arise during pregnancy and parenting (Meisenhelder & Meservey, 1987). Mature gravidas were found to exert more control in planning their pregnancies and pregnancy care (Winslow, 1987). Planning their pregnancy care and birth and using problem-solving skills may help older gravidas to diminish some conflicts in their developmental tasks.

As a group, mature gravidas are better educated, seek prenatal care earlier, and have higher incomes

than do younger gravidas. Older gravidas in this sample had the advantage of more graduate education. Higher education takes years to attain; therefore, a relationship of age with education is not surprising. Ventura (1989) reports that most mature primigravidas (53% in 1986) are college graduates who begin prenatal care in the 1st trimester (black gravidas, 86%; white gravidas, 94%). Mature gravidas also report higher incomes (Gordon et al., 1991; Robinson et al., 1987). The relationship of education, age, and socioeconomic status is difficult to elicit while also controlling for parity. This is an area for future study with a larger random sample.

Implications

The findings of this study suggest that neither age nor previous experience with pregnancy and birth diminish or accentuate the conflicts an older gravida may have about her maternal role. Conflicts in adapting to pregnancy are no greater for older gravidas when compared with younger women. Mature multiparae have conflicts that are equal to older primiparae. Additional concern about an aging mother may complicate a mature gravida's adaptation to pregnancy. An older gravida may have fewer peers who are pregnant and with whom she can share similar concerns and expectations about pregnancy and motherhood. The older gravida's concerns about pregnancy and motherhood should be assessed throughout pregnancy. Although an older gravida may have greater confidence in her ability to maintain control and cope with labor, her need for preparation for labor is not diminished. Supporting an older gravida in all seven tasks of psychosocial adaptation during pregnancy is an important nursing role.

Limitations and Recommendations for Future Research

In a static group comparison design, no means are available for certifying that the two groups of gravidas are alike in all respects except age (Campbell & Stanley, 1963). Older gravidas are distinct from younger gravidas by having more education and higher income (Gordon et al., 1991; Robinson et al., 1987).

Data about ethnicity and socioeconomic status were not collected in this study, so their influence in prenatal adaptation cannot be tested. Mercer (1986) found whites to have higher self-concepts, greater empathy, greater flexibility, and greater adaptability than nonwhites in their adaptation to a maternal role after delivery. These attributes are likely to influence prenatal adaptation also.

The findings of this study suggest that neither age nor previous experience with pregnancy and birth diminishes or accentuates the conflicts an older gravida may have about her maternal role.

Because a convenience sample was used, the results are not generalizable. All data collected were self-reported, and therefore their reliability is uncertain. The PSEQ contained several questions about "husbands" that were not appropriate for the unmarried women in the sample. This may have biased their responses to the questionnaire or led to missing data.

Replication of this study with a larger sample and including the effect of race and socioeconomic status is essential. Many factors associated with age could be tested for their influence on prenatal psychosocial adaptation. The effects of infertility, blended families, and caregiving to elderly parents are a few of the variables that may be more prevalent for mature gravidas. The impact of social support systems and traditional prenatal education may be different for mature gravidas and could be studied so that nurses can better deliver care to this growing population of women.

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