Primigravid and Multigravid Women: Prenatal Perspectives

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ABSTRACT

A paucity of prenatal data is available concerning prenatal experiences of primigravid women compared with those of multigravid women. Therefore, the objectives of this study were twofold: to compare prenatal personal (demographic and other descriptive elements, including self-esteem) and psychosocial variables (maternal-fetal attachment, marital satisfaction) and to describe perceived pregnancy experiences for both primigravid and multigravid women. Both quantitative and qualitative data were collected using a descriptive mixed-methods design. The data were part of a larger, longitudinal study focused on adjustment to parenthood in military and civilian couples. Married pregnant women who resided on the east and west coasts of the United States were recruited from prenatal care facilities. Participants included 50 pregnant primigravid and 50 multigravid married women recruited during the last trimester of a healthy, uncomplicated pregnancy. The main outcome measures included personal and psychosocial variables (demographics, self-esteem, maternal-fetal attachment, marital satisfaction) and perceived pregnancy experiences. Multigravid women had significantly lower levels of maternal-fetal attachment ($p < .00$) and marital satisfaction ($p < .00$) than did primigravid women during their third trimester of pregnancy. The pregnant women's responses clearly reveal that unique and distinct differences exist between the needs of primigravid women and those of multigravid women. Innovative prenatal educational interventions tailored to meet the distinct needs of primigravid and multigravid women are suggested.

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More than 1.25 million American women give birth to their second child each year (National Center for Health Statistics, 2003); however, only a few studies have focused on psychosocial adaptation to pregnancy and motherhood experiences for multigravid women. Despite numerous studies about prenatal

experiences (Behrenz & Monga, 1999; Nichols, 1997; Walker, Cooney, & Riggs, 1999), findings are inconsistent about what specifically contributes to a positive prenatal experience in primigravid women compared with multigravid women. Past research has focused on postpartum primigravid

and multigravid women's attitudes about being a mother (Walker, Crain, & Thompson, 1986a, 1986b) rather than on the prenatal experience of multigravid women. To date, little comprehensive evidence is available to guide clinical practice concerning prenatal adjustment to motherhood as experienced and perceived by primigravid and multigravid pregnant women. Currently, clinicians and educators may assume that there is little variation between first and subsequent pregnancies, and may presume that the "experienced" pregnant woman requires less psychosocial intervention. Evidence to support this assumption is lacking.

Personal and social circumstances, socioeconomic status, knowledge, and preparation, as well as physical and psychological demands, impact parents' preparation for parenthood (Meleis, Sawyer, Im, Messias, & Schumacher, 2000). Kiehl and White (2003) suggest that maternal adaptation during pregnancy is positively related to postpartum adaptation to motherhood and that prenatal adjustment to the maternal role positively relates to later maternal satisfaction with being a new mother. Mercer (2004) proposes that three pregnancy tasks are associated with a positive adaptation to motherhood.

Mercer's (2004) concept of maternal role attainment is described as being initiated during pregnancy and essential to the outcome of becoming a mother. Rubin's (1984) seminal work suggests that maternal identity is achieved when a woman incorporates the maternal role after giving birth. According to Mercer (2004), the first pregnancy task of prenatal transition to motherhood is commitment (including positive and negative pregnancy effects). Positive pregnancy effects represent a favorable response to the first pregnancy task: commitment. Nelson (2003) characterizes making a commitment during pregnancy as making adjustments in other role commitments, such as relationships with the spouse, changes in the woman's daily life, and work outside the home. During pregnancy, women will consider commitment issues related to how they will balance motherhood with their other roles as spouse and employee (Chou, Lin, Cooney, Walker, & Riggs, 2003; Nichols & Roux, 2004). Research suggests that positive pregnancy experiences are positively associated with subsequent maternal

role acquisition after the birth of a new family member (Fowles, 1996; Stainton, McNeil, & Harvey, 1992). Variables identified in past research that are associated with positive pregnancy experiences include demographic variables (e.g., older age, higher educational level), marital satisfaction, maternal-fetal relationship, prenatal childbirth education, social support, self-esteem, and self-concept (Chou, 2001; Chou et al., 2003; Cranley, 1981b, 1993). These variables have been positively linked to subsequent postpartum outcomes associated with later family attachment and well-being, such as decreased parental anxiety (DeLuca & Lobel, 1995; Grason, Hutchins, & Silver, 1999; Nichols, 1995; Walker et al., 1999). Additionally, self-concept has been positively associated with positive maternal perceptions of the infant, and self-esteem was found to be a predictor of maternal role competence for both experienced and inexperienced mothers (Mercer & Ferketich, 1994a).

Negative pregnancy effects represent an adverse response to commitment to the pregnancy (Mercer, 2004). Physical discomforts during pregnancy—such as nausea and vomiting, fatigue, depressive symptoms, stress, and employment—were found to be inversely related to a positive prenatal experience (Behrenz & Monga, 1999; Chou et al., 2003; Elek, Hudson, & Bouffard, 2003; Lee, Zaffke, & McEnany, 2000; Luke, Avni, Min, & Misiunas, 1999; Pugh & Milligan, 1995). The mental health of pregnant women has also been related to the presence of social support and the absence of depression and stress (Ferketich & Mercer, 1990; Fowles, 1996, 1998; Mercer & Ferketich, 1994b). Cooper and Murray (1997) reported rates of depression for pregnant women to be 7–12% compared with a 10–15% postpartum depression rate, and they suggested that nearly as many women are affected by prenatal depression as postpartum depression. It has been reported that variables associated with a negative pregnancy experience include low social support, poor marital quality, and stressful life events (Berthiaume, David, Saucier, & Borgeat, 1998; Bolton, Hughes, Turton, & Sedgwick, 1998).

Mercer's (2004) second pregnancy task is attachment. Establishment of parent-infant relationships is essential for a secure postnatal relationship, which later contributes to a child's optimal physical and psychological development (Ard, 2000; Muller, 1996). The quality of the mother-child relationship results directly from the maternal-fetal relationship

Rubin's (1984) seminal work suggested that maternal identity is achieved when a woman incorporates the maternal role after giving birth.

(Siddiqui & Hagglof, 2000). Additionally, it has been reported that higher levels of self-esteem and social support, as well as lower levels of stress and depression, have been linked with higher levels of maternal-fetal attachment (Coffman, 1992); however, Stark (1997) found no relationship between self-esteem, self-concept, and maternal-fetal attachment.

Satisfaction with the spousal relationship has been linked to a satisfactory prenatal adjustment to motherhood (McVeigh, 1997), and the birth of a second child may precipitate and increase marital strain (Dunn, 1995). Some studies have linked marital satisfaction with higher levels of prenatal attachment (Dalgas-Pelish, 1993; Nichols, 1992). Additionally, marital/partner relationship quality was found to positively influence a sense of confidence and well-being in new parents (Cowan, P., & Cowan, C., 1988). More recently, Durkin, Morse, and Buist (2001) found that personal psychological functioning (couple relationship, social support satisfaction, and quality of childhood family relationships) is important to positive experiences in expectant parents. O'Reilly (2004) found that the birth of a second child added strain on the marriage and that a woman's increased focus on her children was likely to cause decreased focus on the spousal relationship.

Mercer's (2004) third pregnancy task, preparation, includes childbirth education, plans for infant feeding, and plans for returning to work (Nichols & Roux, 2004). Prenatal preparation for motherhood has also been associated with maternal well-being (Nichols, 1992). Sawyer (1999) reported that an active and involved prenatal process that includes taking care of one's self during pregnancy characterizes engaged mothering. Cronin (2003) interviewed a small number of first-time mothers and concluded that prenatal childbirth classes did not adequately prepare women for the realities of birth and motherhood. Current literature suggests that parenting preparation during pregnancy includes educational and anticipatory guidance needs beyond the scope of childbirth classes (Nichols, 1993; Nichols & Roux, 2004).

First-time parents have been the focus of prenatal and postnatal research about influence on adjustment to parenthood (Grace, 1993; Morse, Buist, & Duncan, 2000; Nichols, 1992). Similar studies have not been conducted with multigravid women. Instead, a few studies investigated both multigravid and primigravid women during preg-

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nancy and found that social support, stress, and prenatal fantasies about the unborn child were higher in primigravid women (Mercer & Ferketich, 1994b; Sorenson & Schuelke, 1999). Some studies of postpartum multiparous women have focused on positive links among social support, marital quality, and mental well-being (Lee et al., 2000; Stark, 1997, 2000). Additionally, many studies that focused on second-time motherhood were limited to outcomes such as role stress, role balance, and role conflict for postpartum mothers (Grace, 1993; O'Reilly, 2004; Walker et al., 1986a, 1986b).

In summary, the experience of pregnancy is unique to each woman and is expected to vary. Despite the important linkage of positive prenatal experiences to pregnancy adaptation, prenatal research has primarily focused on primigravid women (Beck, 1999; Cronin, 2003; Durkin et al., 2001). There is a lack of scientific literature comparing primigravid and multigravid women, and it may be erroneous to assume that prenatal needs are the same for first and subsequent pregnancies (Halman, Oakley, & Lederman, 1995). The purpose of this study was to compare prenatal personal (demographic and other descriptive elements, including self-esteem) and psychosocial variables (maternal-fetal attachment and marital satisfaction) and to describe perceived pregnancy experiences for both primigravid and multigravid women.

METHODS

The data for this report are from a larger, longitudinal study that examined prenatal and postpartum adjustment to parenthood. Reported here are the prenatal descriptive data and the responses to three, open-ended questions about pregnancy experiences completed during the third trimester of pregnancy.

Study Sample

The researchers obtained institutional review board approval for protection of human subjects. Criteria for inclusion in the study included married women who were in the last trimester of an uncomplicated pregnancy and who spoke and understood English. A convenience sample was recruited from a population of expectant mothers who received obstetric

Cronbach's alpha coefficient is a statistic that measures internal consistency of a scale. An acceptable level of internal consistency is usually considered anything above 0.7 (Tabachnick & Fidell, 1996).

care at one of several (private, public, and military) settings. There were 50 women from the eastern and western United States in a military setting and 50 women from private and public settings on the east coast.

Setting

Posters and flyers placed in the waiting areas of prenatal care clinics and offices invited potential subjects to participate. If women were interested in participation, they informed the staff, and a research packet containing information about the study was provided. Interested participants returned the informed consent, and research questionnaire packets were provided. Nurses or midwives working in the prenatal care settings also assisted with recruiting potential participants.

Instruments and Short-Answer Questions

Data were collected during the last trimester of pregnancy. Questionnaires included personal data: demographic (parity, maternal age, educational level, employment status, family income, race/ethnicity) and other maternal psychosocial variables (prenatal employment, childbirth education, plans for return to postpartum employment, planned infant-feeding method, and levels of marital satisfaction, maternal-fetal attachment, and self-esteem).

Maternal-fetal attachment was measured using Cranley's (1981a) Maternal Fetal Attachment Scale (MFAS), a multidimensional scale of 24 Likert items designed to measure a mother's affiliation and interaction behaviors with the fetus. The MFAS has five subscales, such as interaction with the fetus and role-taking (Cranley, 1981b). Item response options range from 1 (lowest) to 5 (highest) and, when summed, result in a total score of 24–120. The MFAS has been demonstrated in other studies with pregnant women to have a Cronbach alpha coefficient >0.80 (Cranley, 1981a; Nichols, 1992). In this sample, the MFAS demonstrated internal consistency with a Cronbach's alpha coefficient of 0.82. The Marital Satisfaction Scale (MSS; Nichols, 1992), an analog instrument, was developed to rate satisfaction with marriage on an analog scale of 1 (lowest) to 10 (highest). The Cronbach alpha coefficient of the MSS was 0.80 in a sample of 106 pregnant women (Nichols, 1992) and, in this study, was also 0.80. Global self-esteem was assessed using Rosenberg's (1989) Self-Esteem Scale (RSES), a 10-item unidimensional Guttman scale

to measure perceived self-esteem, with higher scores indicating higher esteem. This scale has been widely used in pregnant women. In past studies, the Cronbach alpha coefficient ranged from .80 to .85 (Damato, 2004; Nichols, 1992) and was .83 for this study.

Participants also responded to three, open-ended questions about perceptions of their pregnancy. This method of data collection was selected because it not only provides freedom for participants to express their views, but also produces meaningful and valid qualitative data (Morse & Field, 1995). A maternal-child nurse researcher, a certified-nurse midwife, and a nursing graduate student who was also a pregnant married woman reviewed the open-ended questions for clarity, appropriateness, and content validity. The participants provided written responses to the following questions:

- 1) What are the most positive or enjoyable aspects of being an expectant mother?
- 2) What are the least positive aspects of being an expectant mother?
- 3) Is there anything that you would like to have changed or done differently during this pregnancy?

Data Analysis

Quantitative data analysis included descriptive statistics and Chi-square analyses to compare primigravida and multigravida women on selected categorical demographic variables. Differences between primigravida women and multigravida women were examined with Independent Sample *t* tests when the means were normally distributed. The accepted level of significance was $p < 0.05$ (Tabachnick & Fidell, 1996).

Content analysis was used to analyze responses to the open-ended questions. Participant responses formed categories for each of the three domains (positive pregnancy effects, negative pregnancy effects, and pregnancy challenges). A descriptive name was provided for each domain and category (Morse & Field, 1995). Data were examined for categories within each domain. When responses within each category reached data saturation, descriptions of the categories within each domain were developed (Morse & Field, 1995). The principal investigator and the second nurse researcher—both experienced in qualitative research—independently analyzed the data and collaborated on the analysis of the final category structure and description. The agreement of

The Maternal Fetal Attachment Scale (Cranley, 1981a) has been used in many studies since it was first developed. For more information about this tool, access the PubMed citation (PMID: 6912989) and then click on the link for related articles. The PubMed citation can be accessed at: http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&list_uids=6912989&dopt=Citation

Content analysis is a qualitative analysis technique used to classify words in a text into a few categories chosen because of their theoretical importance.

the researchers was >95% for category coding. When possible, the participants' exact words were used to describe the experiences.

RESULTS

Description of the Women

The total sample (Table 1) of 100 mothers (50 primigravid and 50 multigravid) ranged in age from 23 to 37 years old with a mean age of 29.7 years old ($SD = 5.05$). Approximately one half (53%) of the women were employed during their current pregnancy, and most women (70%) had planned their pregnancy. The majority of women in both groups were Caucasian (91%), and more than half (53%) had college degrees. The mean number of work hours per week was 19.7 hours ($SD = 21.07$). Approximately half of the women in each group planned to bottle-feed compared with only 23% who planned to breastfeed and 27% who planned a combination of breastfeeding and bottle-feeding.

Personal and Psychosocial Characteristics

Differences in personal and psychosocial characteristics between groups were explored. Primigravid women were significantly younger than multigravid women. Additionally, 86% of the primigravid women attended prenatal education classes compared with only 14% of the multigravid women.

TABLE 1
Sample Characteristics (N = 100)

Variable	Primigravid Women (n = 50)		Multigravid Women (n = 50)	
	n	(%)	n	(%)
Employed*				
Yes	34	(67)	19	(38)
No	16	(33)	31	(62)
Family Income*				
\$10,000–25,999	13	(26)	3	(7)
\$26,000–59,999	14	(28)	23	(46)
\$60,000 and above	23	(46)	24	(47)
Race/Ethnicity*				
Caucasian	40	(80)	47	(95)
Non-Caucasian	10	(20)	3	(5)
Plan to Return to Employment*				
Yes	39	(77)	20	(41)
No	11	(23)	30	(59)
Planned Infant-Feeding Method*				
Bottle	21	(42)	30	(60)
Breast	13	(26)	10	(20)
Breast + Bottle	16	(32)	10	(20)

*Chi Square ≤ 0.05

More primigravid women were employed outside the home and planned to return to work after the birth of their child than did multigravid women. There were also significant differences in family income and plans for infant-feeding methods in primigravid compared with multigravid women (Table 1).

The multigravid mothers in this sample were all expecting a second child. As expected, the multigravid mothers were older and worked fewer hours. There were no reported differences in levels of self-esteem between the two groups. As shown in Table 2, multigravid women had significantly lower levels of maternal-fetal attachment ($p < .00$) and marital satisfaction ($p < .00$) than did primigravid women.

Content Analysis Results

Three domains were the focus of inquiry in the open-ended questions:

- 1) Positive Pregnancy Effects,
- 2) Negative Pregnancy Effects, and
- 3) Pregnancy Challenges.

Many of the participants provided more than one response to each question.

Four categories emerged from the Positive Pregnancy Effects domain: 1) role transition, 2) social support, 3) fetal attachment, and 4) marital relationship. The women described activities that enhanced their pregnancy experiences and the excitement of being pregnant. *Role transition* was described as participants' anticipation of becoming a new mother and the accompanying role changes as they looked forward to motherhood. *Social support* described their feelings of satisfaction derived from the perceived help and support of spouses, family, and friends. *Fetal attachment* was expressed as a positive experience about fetal movement. In *marital relationship*, the primigravid women reported feeling closer and having a more intimate relationship with their spouse. For multigravid women, the experience of support experienced by the husband's help and sharing of the house and childcare responsibilities was most meaningful. Multigravid mothers perceived spousal household and childcare support as their greatest need. However, most multigravid participants did not view the marital relationship as being a positive aspect of being an expectant mother. (See Table 3 for the percentage of responses in each category and examples of verbatim responses from both groups of women).

TABLE 2

Selected Personal/Psychosocial Variables—Primigravid Women ($n = 50$) Compared With Multigravid Women ($n = 50$): Independent Sample T-Test

Variable	Primigravid			Multigravid			t-value	df	p
	Range	Mean	SD	Range	Mean	SD			
Age of subjects, in years	23–37	28	4.8	28–36	32.0	4.4	3.22	98	.00*
Number of hours worked per week	20–40	25.3	20.7	8–30	14.1	20.1	2.75	98	.01*
Marital satisfaction	4–10	9.4	1.1	4–10	8.7	1.11	3.27	98	.00*
Maternal Fetal Attachment Scale	58–114	95.3	10.0	58–114	88.8	10.12	3.22	98	.00*
Self-esteem	22–40	32.5	4.1	22–40	32.3	4.1	0.19	98	ns

2-tailed probability

* $p < .01$.

The Negative Pregnancy Effects domain described the perceived adverse aspects of the current pregnancy—including physical, social, and family stressors—where the prenatal transition involved a disruption in the woman's life. Negative Pregnancy Effects represented four categories: 1) pregnancy symptoms, 2) role challenges, 3) family adjustment, and 4) pregnancy adjustment. *Pregnancy symptoms* referred to physical and emotional changes that adversely affected prenatal experiences and body image. Common pregnancy discomforts (primarily fatigue for both groups, followed by physical symptoms) were noted most frequently

as a negative pregnancy effect. *Role challenges* described maternal efforts to maintain equilibrium in spousal, employee, mothering, and other family roles. Both groups of women responded equally that negotiating role challenges was considered one of the negative experiences during their pregnancy. Multigravid mothers also reported fewer issues with role challenges compared to primigravid women. *Family adjustment* described the challenging effect of adding a new child to the existing family. *Pregnancy adjustment* described the inconveniences associated with day-to-day living and schedules, such as with health-care appointments and childbirth

TABLE 3

Positive Pregnancy Effects: Examples of Responses

Primigravid Mothers ($n = 50$)		
Subcategories	Responses (%)*	Examples
Role transition	40	"I can't wait to become a mother." "I look forward to preparing for and caring for my baby."
Social support	30	"Family are looking forward to caring for the baby." "Family helped with preparation for the baby."
Fetal attachment	20	"It was exciting the first time the baby moved." "I enjoy how I can feel the baby move."
Marital relationship	10	"I am happy to share this pregnancy with my husband." "We are so much closer as a couple."
Multigravid Mothers ($n = 50$)		
Subcategories	Responses (%)	Examples
Role transition	30	"I feel much less stress since I quit my job." "I can be home to take care of my son and the new baby."
Social support	37	"I love the extra attention." "My family is so excited about a new baby in the family."
Fetal attachment	21	"I enjoy wondering about this new baby's personality." "I feel reassured when I feel the baby move."
Marital relationship	12	"He does special things for me." "He spent time with me practicing breathing."

*Indicates the percentage of the women in each group who replied to the open-ended questions with a response conceptually matching this category (Morse & Field, 1995).

TABLE 4
Negative Pregnancy Effects: Examples of Responses

Primigravid Mothers (n = 50)		
Subcategories	Responses (%)*	Examples
Pregnancy symptoms	55	"I did not like having morning sickness, or being pregnant in the summer." "I felt awkward."
Role challenges	32	"I worry if I will be a good mother." "I worry about balance of work and motherhood."
Family adjustment	11	"Concerns about spouse adjusting to a new baby." "I wonder how we will manage new family responsibilities."
Pregnancy adjustment	2	"I do not feel like doing things I did before I was pregnant." "The inconvenience of hours of prenatal appointments."
Multigravid Mothers (n = 50)		
Subcategories	Responses (%)	Examples
Pregnancy symptoms	48	"I was much more tired." "I did not sleep well at night."
Role challenges	30	"How will I balance being a wife and a mother to a second child?" "How will I adjust to returning to work with two children?"
Family adjustment	19	"Worry that our older child will not adjust to the new baby." "How will I take care of three children?"
Pregnancy adjustment	3	"Finding good childcare." "I am tired of being pregnant;"

*Indicates the percentage of the women in each group who replied to the open-ended questions with a response conceptually matching this category (Morse & Field, 1995).

classes. Table 4 depicts the percentage of responses in all subthemes, with examples of verbatim responses.

Four categories within the Pregnancy Challenges domain emerged from the responses to the third question, which addressed what mothers would have changed or done differently during the pregnancy: 1) maternal health, 2) family well-being, 3) finances, and 4) marital relationship. Many women described *maternal health* as somewhat lacking. More primigravid participants reported they felt they should have taken better care of themselves and made more time to improve their physical and mental health. *Family well-being* described aspects of family life the women would have changed to enhance their family's psychosocial health. Both groups of women had similar responses, with the exception of family well-being. Compared to the primigravid mothers, the multigravid mothers reported a much greater need and concern regarding how the family system was impacted by the current pregnancy. *Finances* were frequently a concern, and the expectant mothers described challenges associated with changes in family financial issues. *Marital relationship* highlighted changes or concerns in the quality of the relationship with the spouse. For multigravid mothers, the impact of the pregnancy on the mar-

ital relationship was especially of concern. Table 5 depicts the percentage of responses, with verbatim examples for both groups of women.

DISCUSSION

The pregnant women's responses to the open-ended questions about their feelings relative to their pregnancy provided some important insights regarding the unique perceptions of primigravid women compared with multigravid women. Despite the fact that multigravid women have had a previous pregnancy experience, the current study findings suggest that multigravid women may face more challenges than their primigravid counterparts as they adjust to becoming a mother of a second child. These differences highlight the implication that both groups require unique and possibly more specific support and resources. Childbirth educators, doulas, nurses, and other prenatal caregivers play an essential role in health promotion and prenatal adjustment and, thereby, may enhance this experience for all pregnant women

Multigravid women may face more challenges than their primigravid counterparts as they adjust to becoming a mother of a second child.

TABLE 5
Pregnancy Challenges: Examples of Responses

Primigravid Mothers (n = 50)		
Subcategories	Responses (%)*	Examples
Maternal health	55	"I wish I had exercised more." "...worked less." "...relaxed more."
Family well-being	19	"I wish I had better understanding from my family about the pregnancy." "I wish my parents were happier about the expected grandchild."
Finances	17	"I wish we had had better financial preparation before having a child." "Will I have to work after the baby is born because we will need the money?"
Marital relationship	9	"Changes in sexual relations." "We were overwhelmed and neglected one another's needs."
Multigravid Mothers (n = 50)		
Subcategories	Responses (%)	Examples
Maternal health	36	"I wish I had taken better care of myself." "I wish I had eaten a healthier diet."
Family well-being	28	"I wish I had better support from my family." "Better prepare my 4-year-old for the baby."
Finances	21	"Will we manage financially with two children now?" "I wish we were more financially stable."
Marital relationship	15	"I wish I had spent more time alone with my husband." "I wish my husband would have practiced Lamaze breathing with me more."

*Indicates the percentage of the women in each group who replied to the open-ended questions with a response conceptually matching this category (Morse & Field, 1995).

(Nelson, 2003). Childbirth educators and health professionals have an essential role in anticipatory guidance and counseling of prenatal multigravid women in order to prepare them for the adjustment to motherhood. Educators and health professionals have a responsibility to use evidence-based, clinical research in guiding and counseling mothers. This research adds to the body of knowledge that can be useful to educators, nurses, and other health professionals as they support families during the transition to parenthood (Pancer, Pratt, Hundsberger, & Gallant, 2000).

The multigravid mothers in this study had significantly lower maternal-fetal attachment scores than the primigravid mothers. This difference with their primigravid counterparts may indicate the possibility of less focus on the current pregnancy and on their unborn child and perhaps more attention to their other child (Erickson, 1996). It has been suggested that multigravid women experience more fatigue and sleep problems and decreased functional status (Waters & Lee,

1996). The lower marital satisfaction scores among multigravid women in this study's group of mothers may indicate they have less time to focus on their spousal relationship and, thus, feel less happy with their relationship. This is also reflected in the content analyses of the open-ended questions and may also be due in part to women's perception of inadequate spousal support with household and childcare responsibilities. Financial issues and changes in the marital relationship were of more concern in primigravid women than in multigravid women. Childbirth educators and health-care professionals should focus on marital relationship and financial concerns, as well as on sources for social support (Gottlieb & Mendelson, 1995; Nichols & Roux, 2004).

Interestingly, positive pregnancy effects for primigravid women differed from multigravid women. The women experiencing a first pregnancy found the anticipated role change to becoming a mother the most positive aspect, while mothers expecting a second child indicated that social support was the most positive aspect of the current pregnancy. This is consistent with previous studies in which experienced mothers were more knowledgeable about the maternal role and reported that spousal support was more valued by multigravid

Educators and health professionals have a responsibility to use evidence-based, clinical research in guiding and counseling mothers.

women (O'Reilly, 2004). In the current study, both groups of women found fetal movement to be a positive aspect of their pregnancy, which is consistent with research indicating few differences in prenatal attachment for primigravid women compared with multigravid women (Mercer & Ferketich, 1994a). However, the current study found significant differences between the two groups of women in maternal-fetal attachment scale scores, an inconsistent finding with earlier research results (Erickson, 1996). This inconsistency may be explained theoretically within the context of role changes or role stress.

Few differences were found in negative pregnancy effects, with both groups of women reporting pregnancy symptoms to be the most bothersome. In addition, both groups were in agreement that they would have preferred to take better care of their health during the current pregnancy; however, the primigravid women provided more responses than the multigravid women concerning this issue. This may suggest that, although multigravid women may know more about what to expect, both groups of women have lifestyle demands and barriers to health-promotion behaviors. Issues concerning finances and the importance of family well-being were addressed by both groups of women. Educators, nurses, and other health professionals should assess and provide resources to address these identified needs with all pregnant women. Interestingly, only 14% of multigravid women attended prenatal childbirth education classes, in which an opportunity to address multigravid women's unique needs would have been possible. O'Reilly (2004) studied the transition to second-time parenthood, and findings suggested the multigravid women had concerns about family and self that were not addressed.

The selected quantitative and qualitative referents provided a useful profile of health needs and psychosocial issues that varied for primigravid and multigravid mothers and their families. Grace (1993) found that mothers of two children tend to report more role stress than primigravid mothers. Role stress may explain why multigravid women had lower levels of maternal fetal attachment and marital satisfaction in this study. This may be due to the multigravid woman's focus on the older child and, perhaps, diminished focus on the spouse, or may suggest that first-time mothers exclusively focus on the fetus because they do not have another child to divert attention from the unborn child.

IMPLICATIONS, PRACTICE, EDUCATION, AND RESEARCH

The results of this study suggest that primigravid and multigravid women have unique needs during pregnancy. Anticipatory guidance and health promotion specifically designed for multigravid parents should include interventions designed to focus on role challenges, maternal-fetal attachment, social support, and marital quality. A focus on partner involvement should also be included, especially for veteran fathers who may feel that prenatal classes would not provide any new information for them. Separate prenatal classes for primigravid and multigravid women and their partners are recommended.

Women in both groups alluded to the changes to their marital quality; therefore, anticipatory guidance is needed to help women set relationship priorities and develop strategies to strengthen marital relationships during pregnancy (Brown, 1986). In addition to physical and psychosocial health concerns such as fatigue and role stress, time management needs to be addressed, by which the woman can allocate time for herself, her husband, and her children. Mothers planning to return to work will require additional interventions to balance multiple roles, such as the recommendations included in the Prenatal Assessment Guidelines for Mothers Planning Postpartum Employment (Nichols & Roux, 2004). Surprisingly, in this well-educated sample, only about half of the women planned to breastfeed. This is consistent with previous research findings in which multigravid women are less likely to breastfeed (Humenick, Argubright, & Aldag, 1997) and mothers planning postpartum return to work outside the home have a shorter duration of breastfeeding than previously planned (Nichols & Roux, 2004). Prenatal and postpartum educators and care providers need to continue efforts to promote breastfeeding, especially for mothers returning to the workforce, and provide health education and support as early as possible in the pregnancy.

STUDY LIMITATIONS

Although these quantitative and qualitative data are complementary, the study had several limitations. All data were collected from convenience samples. Study limitations include the homogeneity of the sample—all participants were married women with low obstetric risk. The participants were derived from populations in each of two geographic areas of the United States, the Middle Atlantic region and the Pacific Northwest region, and from

military and civilian settings. Also, the study sample did not represent a wide variety of racial and ethnic backgrounds. Data collected did not specify the week of gestation, which may be a significant variable to explore in subsequent studies. Week of gestation or trimester may or may not have had a relationship to the variables of interest or the qualitative data. A larger, more diverse sample would provide greater evidence to detect the existence of additional differences between groups.

CONCLUSIONS

Past research has suggested that a few differences between primigravid and multigravid women are likely. The findings of this study demonstrated that multigravid women have lower levels of maternal fetal attachment and marital satisfaction. Further research is needed to better understand how pregnancy experiences differ. To meet the needs of both primigravid and multigravid women during pregnancy, a clearer understanding of their individual needs is requisite to the development of a sound theoretical model and innovative prenatal education and interventions. This study should be replicated in socially disadvantaged and minority women. Investigations of men during their partner's pregnancy and the role transition to new fatherhood are also needed to explore the influence of a partner on maternal role transition.

Empirically based prenatal interventions to promote prenatal adjustment to motherhood are needed for both primigravid and multigravid mothers, where prenatal health needs may differ. Because each group appears to have unique needs, interventions need to be tailored to the needs of both groups of pregnant women and their families. Childbirth educators, nurses, and health-care professionals have a leadership role in providing anticipatory guidance and education that is grounded in the unique experiences of primigravid and multigravid women.

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