

Patient Satisfaction With Obstetric Care

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Patient satisfaction with obstetric care was studied in a cohort of postpartum women from a rural midwestern county. Birth certificate data defined the population, and satisfaction data were acquired through a mailed questionnaire. An indirect measure (satisfaction scale) was derived with acceptable construct validity and internal consistency. A direct measure (open-ended questions) elicited specific comments about each woman's recent experience with obstetric care. Satisfied women, as described by the scale, were more likely to have had good physician continuity and to have attended childbirth classes. The open-ended responses most frequently described problems relating to the physician-patient relationship. In comparing the indirect and direct measures, women with high satisfaction scores were more likely to make no critical comments about their obstetric care ($\chi^2 = 9.16, P < .003$). The patient's perception of the physician's attitude of concern emerged as an important issue in both measures. The data demonstrate that perceived physician concern is an important component of patient satisfaction with obstetric care.

Patient satisfaction has been defined as "the individual's positive evaluations of distinct dimensions of health care."¹ Practitioners and administrators have an interest in patient satisfaction for several reasons. They are interested in attracting and retaining consumers of medical services. They may also be interested in emphasizing characteristics of perceived quality and addressing areas of unanswered need. It has been suggested that patient satisfaction may, in fact, promote appropriate use of services and compliance with medical regimens. For these reasons and others, there has been a growing interest in the subject of patient satisfaction.²⁻⁴

Patient satisfaction has been measured by directly asking the patient questions about specific health care experiences, eg, "What did you like and not like about the care you received?" Or it has been indirectly measured by responses to scales of questions asking

about satisfaction with physicians in general or satisfaction with previous medical experiences. Hulka et al¹ noted two disadvantages to the direct approach. First, respondents tend to reply in a socially acceptable way, infrequently expressing negative attitudes. Second, direct questions cannot provide an unbiased quantitative score. A limitation of scales is that they do not provide specific feedback at the level of provision of services.³

Several dimensions of patient satisfaction have been described and scales have been developed based on the following dimensions: personal qualities, professional competence, and cost and convenience¹; physician conduct, availability of services, continuity and convenience, and access mechanisms⁵; and physician interactions, nonphysician interactions, and ancillary services provided.⁶

There have been several studies of satisfaction with medical care in pregnant or postpartum women.⁷⁻¹³ Generally, these studies have demonstrated satisfaction with technical competence.^{8,11} Most studies have shown that level of satisfaction is related to the perceived quality of communication, including the physician's understanding of feelings,⁸ ease in asking questions,⁹ providing adequate explanations,¹⁰ and responding to patient preferences.¹²

Only one study of postpartum women has used an indirect measure of patient satisfaction.¹³ Not one has used both direct and indirect measures. This study di-

Submitted, revised, February 26, 1986.

A portion of this paper was presented at the North American Primary Care Research Group Annual Meeting, Seattle, Washington, April 17, 1985. From the Department of Family and Community Medicine, University of Missouri—Columbia, Columbia, Missouri, and the Department of Family Practice, Southern Illinois University, Quincy Family Practice Residency Program, Quincy, Illinois. At the time this study was performed, the authors were Robert Wood Johnson Foundation Fellows in Academic Family Practice, Department of Family and Community Medicine, School of Medicine, University of Missouri—Columbia, Columbia, Missouri. Requests for reprints should be addressed to Dr. Steven Zweig, Department of Family and Community Medicine, University of Missouri—Columbia School of Medicine, Columbia, MO 65212.

TABLE 1. COMPARISON OF CALLAWAY COUNTY WITH OTHER COUNTIES NOT PART OF STANDARD METROPOLITAN STATISTICAL AREAS (SMSA)*

Characteristics	US Counties	
	Callaway	Outside SMSA
Sex (% female)	50.9	51.0
Race (% white)	94.0	88.1
(% black)	5.2	8.8
Median age (yr)	28.8	30.1
Age greater than 65 years (%)	12.1	13.0
Mean household income	\$15,553	\$16,043
Education		
High school graduates (%)	59.5	63.7
College graduates (%)	9.6	11.0

*US Census Data, 1980

rectly asked women how their obstetric experience could have been better, and quantitatively measured satisfaction with medical care through the use of a standardized scale.

It was hypothesized that postpartum women would be satisfied in general with obstetric care, more satisfied if they experienced high continuity of care, and more likely to be dissatisfied with communication and relationship issues than concerns about medical competence.

METHODS

This study of patient satisfaction was part of a larger project that examined patterns of utilization of prenatal care and described health-related beliefs and behaviors during pregnancy. The study population comprised all married women residing in Callaway County, Missouri, who had a live birth during the period from July 15, 1982, through July 15, 1983. Callaway is a rural county in central Missouri with a population of 32,252. Table 1 compares the population of Callaway County with all US counties outside standard metropolitan statistical areas. The sex, race, and age distributions, median income, and educational attainment of Callaway County residents are similar to those people living in other rural communities not part of standard metropolitan statistical areas.

Information was obtained from birth certificates and from each woman's responses to a questionnaire mailed three to 12 months after delivery. For the questionnaire, six items were selected from the satisfaction scale developed by Hulka, Zyzanski, and co-workers.^{1,14,15} Two items were drawn from each of the three content areas: professional competence, personal qualities, and cost or convenience. Items were

TABLE 2. COMPARISON OF RESPONDENTS AND NONRESPONDENTS

Characteristics	Respondents	Nonrespondents
Mean age (yr)	26.3*	24.7*
Mean education (yr)	13.0*	12.0*
Race (% white)	96.8	95.4
Parity (% primiparous)	39.2	40.8
Specialty of physician (% family practice)	42.5	48.5

*P < .05

chosen that had good face validity, were brief, and were easy to understand. Using a five-point scale, respondents were asked to agree or disagree with six statements about physicians and medical care on the basis of their recent experience:

1. "Doctors do everything they can to keep from making a mistake."
2. "It is hard to get a quick appointment to see a doctor."
3. "Doctors let you talk out your problems."
4. "In an emergency, you can always get a doctor."
5. "Doctors should be a little more friendly than they are."
6. "Even if a doctor cannot cure you right away, he can make you feel more comfortable."

This scale was subjected to standard tests of validity (factor analysis) and reliability (internal consistency). The final scale used for analysis is described under Results.

In addition to this indirect scale, satisfaction was measured with three open-ended questions that directly focused on the recent obstetric experience:

1. Have your feelings about medical care changed since you became pregnant and had your baby?
2. Would you want anything different with regard to your care or your delivery if you were to become pregnant again?
3. What are the most important things that doctors should know but sometimes do not seem to understand about pregnancy?

Other variables measured by the questionnaire included income, type and extent of health insurance coverage, desirability of pregnancy, continuity of care (whether patient had none, some, or most prenatal visits with the delivering physician), distance to prenatal care, and specialty of their physicians. Obstetricians were distinguished from family physicians (including osteopaths). Age, years of education, and

TABLE 3. COMPARISON OF CHARACTERISTICS WITH RESPECT TO LEVEL OF SATISFACTION

Characteristics	Low Satisfaction (n = 110)	High Satisfaction (n = 145)	P Value
Mean age (yr)	26.2	26.2	NS*
Mean education (yr)	12.9	13.0	NS*
Median family income†	18-24	18-24	NS**
Primiparous (%)	35	42	NS***
Prenatal care began before 4 months (%)	86	88	NS***
Distance to care less than 15 miles (%)	51	59	NS***
Pregnancy wanted then (%)	67	77	.08
Insurance paid at least one half (%)	75	83	.10
Care from family physician (%)	51	39	.06
Most visits with physician (%)	61	75	.01
Attended childbirth classes (%)	58	72	.02

*P > .2 by t test
 **P > .2 by Mann-Whitney U test
 ***P > .2 by chi-square
 †Thousands of dollars

month of pregnancy in which prenatal care began were obtained from birth certificates.

Chi-square statistics were used to compare differences in the distribution of dichotomous variables; *t* tests were used to compare differences in means. Linear multiple regression analyses were performed using the *Statistical Package for the Social Sciences* (subprogram Regression).¹⁶

RESULTS

CHARACTERISTICS OF RESPONDENTS

Of 385 questionnaires mailed, 15 were returned undeliverable. Two hundred fifty-five questionnaires were returned with usable information, a response rate of 69 percent. Table 2 compares respondents and nonrespondents with respect to demographic information derived from birth certificates.

CONSTRUCTION OF SATISFACTION SCALE

The original six-item satisfaction scale was examined for construct validity and internal consistency. Alpha factor analysis of the six-item scale produced one factor with an eigenvalue greater than 1.0. Those items with significant communality and loading on this factor were retained. These three items (items 1, 3 and 4) appear to be related to the common theme of physician concern. The other three items were dropped, and a second factor analysis produced one factor (eigenvalue 1.89) explaining 63.1 percent of the common variance of the scale. The internal consistency of this three-item scale was examined, revealing an acceptable reliability coefficient (alpha = .71).

Factor-scale scores (factor score coefficient *x* [value

– mean value] divided by standard deviation) were computed for each subject on these three items and were summed to create a satisfaction score (range –3 to +3).¹⁶ Those subjects with a negative score made up the low-satisfaction group (n = 110, 43 percent) and those with a zero or positive score made up the high-satisfaction group (n = 145, 57 percent). These two groups were the bases for subsequent analysis.

COMPARISON OF LOW-SATISFACTION AND HIGH-SATISFACTION GROUPS

There were no differences between the two groups in age, education, or income (Table 3). Nor did they differ in when prenatal care began or in distance to the site where they obtained care. There was a tendency for those who wanted their pregnancy at the time it occurred, who had good insurance coverage, or who received their care from an obstetrician to be in the high-satisfaction group. Those women who experienced a high measure of continuity of care with the delivering physician and those who attended childbirth classes also were more likely to be in the high-satisfaction group.

A linear multiple regression analysis was performed to control simultaneously for confounding by any of these covariates. Only continuity of care and attendance at childbirth classes were significantly associated with high satisfaction. Thus, whether the pregnancy was desired at that time, the level of insurance coverage, and care from an obstetrician were not significantly associated with satisfaction after controlling for other variables.

To determine whether medical outcome affected patient satisfaction, those women who had a cesarean section or who were delivered of a low-birth-weight

TABLE 4. FREQUENCY OF CRITICAL COMMENTS BY RESPONDENTS

	Number (%)
Physician-patient relationship and communication	111 (47)
Discomforts of pregnancy and labor	39 (16)
Intervention and technology	35 (15)
Medical skills	19 (8)
Continuity of care	19 (8)
Hospital care	10 (4)
Costs	6 (2)

infant were examined. The 11 percent of the women who had a cesarean section were no more likely to be in the low-satisfaction group ($P = .61$). Of the ten women who were delivered of an infant weighing less than 2,500 g, eight were in fact in the low-satisfaction group. When these ten women were excluded from the analysis, the significant associations of patient satisfaction with continuity of care and attendance at childbirth classes were unchanged.

RESPONSES TO OPEN-ENDED QUESTIONS

The second analysis examined the responses to the open-ended questions about each subject's health care experience during pregnancy. One hundred forty-seven (58 percent) made one or more suggestions about how their experience could have or should have been different. Ninety-four (37 percent) expressed total satisfaction with their medical care or simply answered no or nothing to each of the questions. Only 14 women (5 percent) left this section entirely blank. There were 238 comments in all, which were exclusively classified into seven major subject categories (Table 4). No comments remained unclassified.

The dominant category was made up of comments relating to the physician-patient relationship—particularly physician-patient communication. This category included suggestions to physicians to spend more time with patients, to listen better, to provide more information, and to respect the patient and the pregnancy as unique. Physicians were encouraged to attend more to patients' feelings and emotions and to try to understand the fears and anxieties a woman has during her pregnancy.

The next most frequently mentioned issues related to the discomforts of pregnancy and the pain of labor. Many women felt physicians did not pay enough attention to these issues or were insensitive to their discomforts.

A third category of comments related to desiring a less invasive or less technical approach to labor and delivery. Some women complained of undergoing induction of labor or requiring a cesarean section.

TABLE 5. COMPARISON OF INDIRECT AND DIRECT MEASURES OF SATISFACTION

	Low Satisfaction (%)	High Satisfaction (%)	P Value
Made no critical comments	26	45	.003
Identified communication problems	46	29	.01

Others simply did not want an intravenous line or a fetal monitor. Several wanted their next baby to be born in a birthing room or some other family-centered, less invasive setting.

The fourth group of comments concerned the medical skills of the physician. Some wanted more or fewer laboratory tests for evaluation of problems. A few wrote they would "go to a specialist next time." The group focusing on medical skills, however, was relatively small.

The fifth group included complaints about a lack of continuity in their physician care. They either had too many physicians or their physician was not on call when they had their baby.

Fewer of the women were critical of the hospital in which they were delivered. They wrote that there were too few nurses, or that the nurses were not helpful enough, or that the hospital had too many regulations about activity or visitation. Costs were mentioned as a problem of medical care by only six of the respondents.

COMPARISON OF SATISFACTION MEASURES

The indirect measure of satisfaction was then compared with the more direct measure. Women in the high- and low-satisfaction groups (as defined by the scale) were compared with those women who made negative comments about their care and those who had no criticisms (Table 5). Nearly twice as many women with high satisfaction scores made no critical comments on their obstetrical care. Those who specifically noted communication problems were more than 1 1/2 times as likely to have low satisfaction scores. Both of these differences were statistically significant. These findings provide concurrent validity for the scale.

DISCUSSION

This report describes the use of two measures of patient satisfaction with obstetric care and the patient

characteristics and experiences associated with satisfaction. Numerous sources of bias can affect studies of this type. First, there is the possibility of a selection bias. Although many satisfaction studies have included only patients of a particular practice or hospital,^{7,9-11} this sample included subjects from each physician and hospital in Callaway and surrounding counties. The denominator of the cohort was described using birth certificate data. Although the sample responding to the questionnaire was slightly older and better educated than those who did not respond, it was similar in other demographic characteristics.

Because state regulations prevented access to birth certificate data on 76 women who were unmarried at the time of delivery, this could also impair the generalizability of the results of this study. Although this unmarried group was likely to be younger, poorer, and less well-educated than the sample, these characteristics were not found to be associated with satisfaction in the sample responding to the questionnaire.

A second concern is the possibility of a misclassification bias. Respondents may be more likely to describe themselves as satisfied when questioned by their health care providers. The authors were not responsible for the continuing care of the subjects, making a misclassification bias less likely. Lebow² suggests that even in external studies such as this one, the subject may wish to present her physician favorably. In spite of this tendency, a significant proportion of the respondents did make critical comments about their care (58 percent).

Satisfaction scores were not related to years of education or income. In a community survey, Hulka and co-workers¹⁷ found those in the lowest social class to be least satisfied, but did not detect a linear relationship between social class and satisfaction score. Education was not found to be associated with satisfaction in the study of postpartum women by Light et al.⁸

Attendance at childbirth classes was associated with high satisfaction, independent of income or formal education. The open-ended responses also identified the importance of information and reassurance to many of the respondents. It is possible that patients who seek out additional information (ie, attend childbirth classes) may be more active participants in prenatal care and perhaps easier to satisfy.

A measure of continuity of care was found to be associated with high satisfaction. Another study of pregnant women also noted an association of continuity with patient satisfaction.¹³ These findings support the importance of the physician-patient relationship to satisfaction with care. However, this study's definition of continuity is applicable only to obstetric care as it was determined by whether the patient's primary physician attended the delivery.

Respondents called for physicians to provide more information, to deal better with concerns and

anxieties, and to be more sensitive to discomforts. Other studies have shown that many women believed physicians did not adequately explain procedures,⁷ did not understand their feelings or spend sufficient time with them,^{8,12} or did not respond to their concerns.⁹ Kirke^{10,11} found that mothers who were not satisfied rarely questioned the technical competence of physicians or nurses, but were more concerned about the manner in which the care was provided, communication issues being an important component. These issues emerge in previous studies regardless of whether the sample was rural or metropolitan.

It is probable that the differences in perspective of the physician and the patient may contribute to patient dissatisfaction. During prenatal care, physicians monitor the physical health of the women (by measuring blood pressure, recording weight, examining the urine) and also plot the physical growth and viability of the fetus (by measuring fundal height, listening for fetal heart tones, and by performing sometimes ultrasonography or amniocentesis). During labor and delivery, staff may attend almost exclusively to graphs of the fetal heart rate and uterine contractions. In this sense, a physician may demonstrate a view of pregnancy as a potential medical problem.

The patient's perspective and expectations may be somewhat different. While she wants reassurance regarding her own and the baby's health, she also desires a trusting, stable relationship with her physician, which includes receiving information, empathy, and understanding. To the pregnant woman, her pregnancy is a unique life experience validated by changes in behavior roles, and activities. As Larsen and Rootman¹⁸ pointed out, "the more a physician's role performance meets a patient's expectations, the more satisfied the patient will be with the physician's services."

Because patient opinion of quality care may be based on radically different criteria from those physicians use, it is not surprising that the perspectives of patient and physician may differ. Both perspectives are important.

As all of the women in the study experienced successful live births, their satisfaction or lack of it may be more heavily founded on the conduct of the physician-patient relationship. Ware and Snyder⁵ have suggested that patients may not differentiate between the caring behavior and the curing behavior of physicians. Satisfaction studies of this type may help to identify specific areas in which physicians may focus their efforts to promote interactions more satisfying to their patients.

In summary, a satisfaction scale indicates that childbirth classes and continuity are associated with high satisfaction. It has also been demonstrated that the physician-patient relationship and the perceived concern of the physician are important contributors to patient satisfaction with obstetric care.

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