Use of Pediatric Prenatal Visits by Family Physicians

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A questionnaire regarding the use of pediatric prenatal counseling interviews was mailed to 235 randomly chosen family physicians. From 164 responses, 69 practicing family physicians who see a minimum of ten newborns per year were identified. Thirty-five (51 percent) of this study group conducted pediatric prenatal visits with the expectant parents. They saw a mean of 65 percent of mothers (or couples) for such an interview and were unanimously in favor of fathers' attending the session. Whether members of the study group did or did not conduct prenatal visits did not correlate with geographic location, number of years in practice, or board certification. Those who did conduct prenatal interviews saw significantly more newborns per year than those who did not. The average prenatal visit lasted significantly longer than a well-baby visit. Study group members, regardless of whether they conducted prenatal interviews, had positive attitudes about their use.

High consensus regarding the usefulness and importance of prenatal visits combined with the low prevalence of their actual use suggest the need for more parent and physician education around this aspect of the care of infants and parents.

The American Academy of Pediatrics[1] recommends that physicians caring for newborns meet with the parents prior to the infant's birth. They cite infant behavior, feeding, hospital routines, characteristics of the physician's practice, economics, and family medical history as possible topics for discussion. This provision of a wide ranging list of topics to be addressed implies that education is the major function of the visit. Over the past three decades several writers have agreed that the educational function is important; however, they state that the interview also provides an opportunity for the parents and physician to exchange ideas in order to establish a working, supportive relationship.[2-6] These authors recommend that the physician elicit opinions and responses on the part of parents and not simply provide information. This counseling approach builds on the work of Bibring and others[7-9] who have described the normal psychological turmoil and change that

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a woman undergoes as she prepares to add the role of mother to those of daughter and wife.

Surveys of actual practice in several areas of pediatrics have shown wide ranges in practice habits as well as major discrepancies between what is recommended and what is practiced.[10-12] These findings, applied to pediatric prenatal counseling, raise questions regarding the purposes and practicality of these recommended visits. Do practicing physicians and their patients actually use, and find useful, prenatal interviews? Because the literature does not address these questions, a multiple choice questionnaire* designed to answer the following questions was prepared: (1) Is the prenatal interview used in practice? (2) Can physicians who conduct pediatric prenatal visits be distinguished demographically from those who do not? (3) What are some of the attitudes physicians hold toward prenatal visits? (4) How are prenatal visits arranged? (5) What information do physicians want to exchange with parents during the interview?

The questionnaire was used to ascertain habits and attitudes of family physicians and pediatricians. This report details results of the survey of family physicians. These results have implications for teaching, research, and practice.

Methods

A copy of the questionnaire, along with an individually addressed explanatory letter and a stamped return envelope, were sent to each of 235 Arizona family physicians. These physicians were randomly chosen from among the 433 who had listed their primary specialty as family practice in the 1978-79 Directory of the Arizona Board of Medical Examiners. Three weeks after the initial mailing, nonrespondents were sent a follow-up letter, along with a second copy of the questionnaire and a second return envelope.

Results

One hundred fourteen physicians (49 percent) responded to the first mailing and 50 (21 percent) more responded to the follow-up letter, for a total of 164 physicians (70 percent) returning questionnaires. Fourty-four respondents returned an uncompleted questionnaire; all but two of these had added a written comment stating that the questionnaire was not applicable to their practice. Fourteen of these specifically added that they did not do obstetrics, apparently misunderstanding the type of prenatal visit being addressed.

Because this study addressed the habits and attitudes of those family physicians who have newborns in their practices, this subgroup of respondents was next selected by arbitrarily defining a "family physician caring for newborns" as one who labeled himself a family physician and stated that he saw ten or more newborns per year. Sixty-nine of the 164 respondents (42 percent) met these qualifications and thus became the study population. Of these 69 respondents, 35 (51 percent) stated that they do conduct pediatric prenatal interviews, while 34 (49 percent) stated that they never conduct them.

Demographic comparisons were made between these two groups of family physicians. Those who do conduct prenatal interviews had practiced for a mean of 15.3 years, whereas those who do not had practiced for a mean of 18.7 years (a nonsignificant difference). Respondents who had been in practice for ten or fewer years (the time period during which family medicine residencies have existed) did not do more prenatal interviews than those who had practiced for more than ten years. Fifty-two percent of board certified family physicians and 50 percent of those not board certified stated that they did conduct pediatric prenatal visits. Physicians who do prenatal visits entered a mean of 44.1 newborns per year into their practices, whereas those not doing these interviews entered a mean of 24.8 ($P = 0.008$, chi-square). With respect to geographic location, 75 percent of those from Tucson, 44 percent from greater Phoenix, and 57 percent of those from other (nonurban) areas of the state do prenatal interviews (nonsignificant differences).

All respondents, regardless of whether they conduct prenatal interviews, were asked to rate their degree of agreement or disagreement (on a five-point scale) with a series of 11 statements regarding their attitudes toward prenatal visits (Table 1). Both groups of respondents thought that prenatal visits were more worthwhile for first-time mothers or for families new to their practices.

*A copy of the questionnaire is available from Dr. Sprunger upon request.

Table 1. Family Physicians' Attitudes Toward Prenatal Visits

	Do Conduct Prenatal Visits (n=35)	Do Not Conduct Prenatal Visits (n=34)
A prenatal visit is more worthwhile for a first-time mother	4.31	4.42
A physician should strongly encourage a prenatal visit	4.34	3.77*
A prenatal visit can sometimes be useful to the physician	4.26	4.00
Prenatal visits are a waste of the parents' time	1.32	1.65
Prenatal visits are useful and important for the physician	4.06	3.48*
A prenatal visit is not very practical for the physician in terms of time and money	2.15	3.03*
The decision about having a prenatal visit should be made by the parents	3.12	3.29
Prenatal visits are useful and important for the parents	4.46	3.68*
Prenatal visits are a waste of the physician's time	1.38	2.07*
A prenatal visit can sometimes be useful to the parents	4.12	4.03
A prenatal visit is more worthwhile if the family is new to the physician's practice	3.94	4.03

Note: Each statement was rated on a scale from 1 (strongly disagree) to 5 (strongly agree). Statements are worded as they appeared on the mailed questionnaires
*Significant at $P \leq 0.02$ by t test

Both groups rated prenatal interviews as being important and worthwhile for both the parents and the physician. Both groups agreed that a physician should strongly encourage a prenatal visit. They were both neutral as to whether the decision to have an interview should be made by the parents. Those who do conduct prenatal visits did not agree that prenatal visits are impractical in terms of time or money, whereas those not doing the interviews were neutral about the practicality of such visits. While both groups had positive attitudes toward the use of prenatal visits, those family physicians who do them indicated stronger agreement with positive statements (or conversely, stronger disagreement with negative statements) than those who do not conduct them.

Further questions were addressed to those 35 family physicians who do conduct prenatal visits. These physicians conducted prenatal interviews with a mean of 65 percent of the parents of newborns who entered their practices. They spent a mean of 22.4 minutes for a prenatal visit as opposed to 16.1 minutes for a routine well-baby checkup ($P = 0.003$, t test). Sixty percent charge for a prenatal counseling visit. Respondents who do prenatal interviews were asked what they thought of the father's attending the session. None were negative about his presence. Twenty-six per-

Table 2. Information Family Physician Seeks From Parents (n=35)

	Mean Response
Family medical history, including previous pregnancies and their outcome (A)*	4.83
An understanding of the parents' feelings, concerns, or problems about this pregnancy and their expected child (D)	4.60
The family's expectations of you as their child's physician (B)	4.20
A picture of the family's social situation (E)	4.13
Practical plans and arrangements the family has made at home for their imminent baby (F)	4.09
A feeling for the parents' degree of medical sophistication (C)	4.03

Note: Each statement was rated on a scale from 1 (unimportant) to 5 (important). Statements are worded as they appeared on the mailed questionnaires
*Letters indicate the order of the statements on the mailed questionnaires

Table 3. Information Family Physician Seeks to Give to Parents (n=35)

	Mean Response
An understanding of when you will see or want to see the baby, eg, under what circumstances or for what problems, involvement in delivery, nursery visits, etc (B)*	4.40
An understanding of the nature of your role as the family's pediatrician (A)	4.19
An understanding of your position on basic issues, eg, mode of feeding, circumcision, etc (D)	3.89
An understanding of how your practice operates, eg, charges, coverage, office hours, etc (C)	3.71

Note: Each statement was rated on a scale from 1 (unimportant) to 5 (important). Statements are worded as they appeared on the mailed questionnaires
*Letters indicate the order of the statements on the mailed questionnaires

cent were neutral, 24 percent were cordial, and 50 percent were enthusiastic. This question addressed attitudes and did not ask for the actual numbers of fathers who attend.

How do these physicians arrange for a prenatal visit? Most often the family was already in the physician's practice and informed him about the expected baby. Generally, these visits were not incorporated into sibling visits. If the family had not been enrolled in the practice, the visit was arranged after the mother had made contact with the physician's office. Almost never did a physician make the first contact with a family after being given the mother's name by a referring physician.

Physicians who do prenatal counseling were asked to rate each of six statements regarding what information they wanted to obtain from the parents and four statements regarding information they wanted to give to the parents. Statements were rated on a five-point scale ranging from unimportant to important. The statements and their mean ratings are shown in Tables 2 and 3. All responses received mean ratings decidedly on the important end of the scale.

Discussion

The response rate of 70 percent to the two mailings was high when compared to rates in other studies using similar methods.[10-12] Statistical treatment of the results of this study (as with any survey study based on voluntary responses) and the generalizability of the findings must be based on an assumption that the 164 physicians who returned questionnaires were a representative sample of the original group of 235. Other than that, the addresses of nonrespondents did not reveal urban vs rural differences in geographic distribution, this assumption cannot be proven or disproven. It is very possible that nonrespondents were not seeing children and, therefore, had little interest in the survey content. Had they responded, they would

not have influenced the results, since the selected study population consisted of physicians who actually care for newborns.

Of more concern is the group of respondents who stated that the survey was not applicable to their current practice. In some cases they included enough information for this to be validated (eg, "does not apply to me as I only work emergency rooms"). Those who stated that the survey was not applicable because they do not do obstetrics, however, are bothersome, since they may actually have been physicians who see a considerable number of children. They may represent a larger group that did not respond because they misunderstood the nature of the questionnaire.

Survey responses indicate that approximately one half of Arizona family physicians who care for ten or more newborns per year do conduct at least some pediatric prenatal counseling visits. A similar survey of pediatricians[13] showed a distinct majority (73 percent) offering prenatal interviews but to a lower mean estimated percentage of parents, 22 percent vs 65 percent in the present study. In either case, less than a majority of parents seeing these two groups of physicians have a prenatal visit. In the present study, respondents generally agreed that both education and relationship building were important components of the interviews. Even physicians who never conduct prenatal visits agreed that they are useful and important for both the physician and the parents and that they should be strongly recommended.

With such "correct" attitudes and good intentions, why does this study indicate that fewer than one half of the involved parents see the physician for a pediatric prenatal visit? Survey results indicate that time may be one reason. Compared to well-child visits, prenatal interviews are time consuming. In spite of this, family physicians who do use these interviews were actually seeing significantly more new infants per year. Apparently they find the visits useful enough to make time for them. Some physicians have addressed the time issue by having a nurse or nurse practitioner meet with expectant parents individually or in groups. This method can provide the educational component referred to earlier. Even though a direct contact with the physician is not made, this meeting can communicate the physician's interest in parents' prenatal concerns.

Unlike pediatricians surveyed,[13] only 15 percent of whom charge for a prenatal visit, the majority (60 percent) of family physicians make a charge. Still, 40 percent of those doing interviews do not charge for them. The reasons for this are unclear, though perhaps some of these physicians do not truly believe that this service is worthwhile. This finding leads to the speculation that some physicians may not strongly insist on prenatal interviews, since they represent a clinical activity which for many does not generate immediate income.

Another explanation for the low prevalence of prenatal visits may be that physicians continue to feel some reluctance or ambivalence about the counseling role frequently demanded of them. The prenatal interview may be especially stressful because the new "patient" has not yet fully materialized. The physician is also addressing a normal phenomenon rather than a problem that needs to be investigated or explained. Physicians trained to deal with pathology may find normalcy unchallenging.

Survey results do not directly address the issue of to what extent the low incidence rate is a result of parent behavior or attitudes. Parents may be unaware that they can see the physician prenatally. If aware, they may not act.

The overall low prevalence found in this survey may actually mask different rates for subgroups of expectant mothers (or parents). For example, primiparous women may ask for or be encouraged to seek prenatal interviews with greater frequency than would multiparas. While survey data do not directly address this, responding physicians' strong agreement with the statement that prenatal visits are more important for the first-time mother is consistent with this possibility.

For the family physician the interface between obstetrics and pediatrics may present problems at times. A recent series of reports indicates that approximately two thirds of the graduates of family practice residencies perform routine obstetric care, although the rates from individual programs ranged from 25 percent to nearly 90 percent.[14-17] Neither the Arizona Academy of Family Physicians nor the American Academy of Family Physicians was able to provide statistics on what percentage of their members practice obstetrics and/or pediatrics. However, officials from both groups stated that their general impression was that, especially in urban areas, relatively few do obstetrics. For those family physicians who do not do obstetrics, the infant (as well as the family) is

often a new referral, just as it is for pediatricians. It would appear to be to the advantage of these physicians to meet with parents prenatally. Several respondents commented, however, that it is difficult to get obstetricians to refer patients prenatally. In some cases, the family physician may know the parents on an ongoing basis even though he or she is not doing the obstetrical care. When this is the situation, the ongoing parent-physician relationship can be used to address issues related to the expected infant. In the long run, the precise nature of the contact is probably less important than whether relevant issues are addressed.

When the physician does both the obstetric and pediatric care, prenatal pediatric issues may be integrated with obstetric issues, confused with them, or ignored. Concern about the last two possibilities is prompted by those respondents who stated that the survey did not apply to them because they do not do obstetrics. These physicians may be unacquainted with the concept of prenatal pediatric anticipatory guidance. Other respondents commented that a pediatric prenatal visit is unnecessary if they are giving the obstetric care and plan to continue as the infant's caregiver. This may be correct if issues relevant to the baby's care and the changing roles of parents and physician are addressed during obstetric visits, as some authors have recommended.[18,19]

Results reported from this survey show that family physicians generally have positive attitudes toward prenatal pediatric counseling and that they do conduct such interviews, though not extensively. The low prevalence of prenatal visits combined with the high consensus regarding their importance and usefulness suggest the need for more education and research to clarify issues involved in prenatal pediatric counseling. That family physicians in practice ten or fewer years, presumably trained in formal family practice residencies, did not do significantly more prenatal counseling than do older physicians indicates educational efforts should involve both continuing medical education and the training of residents. Family practice (as well as pediatric) residency programs should develop educational experiences and methods for improving trainees' skills in this and other areas of preventive and anticipatory guidance. Continuing education programs can work to give primary care physicians practical help with such issues as parents' reasons for seeking an interview (an uninvestigated area), content and process of the interview, and setting fees for this kind of service. In addition, obstetricians should be reminded and encouraged to make broader use of referrals for pediatric prenatal interviews. Finally, parent education programs should address the importance and advantages of establishing a relationship with the infants' physician prior to birth.

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