Listening to Mothers II: Knowledge, Decision-Making, and Attendance at Childbirth Education Classes

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ABSTRACT

In this column, a woman describes her concern that her childbirth classes did not provide the information she needed to make informed decisions during labor and birth. The results of the *Listening to Mothers II* survey suggest that this experience is not unusual. Although most women (97%) who participated in the survey wanted to know all or most of the potential risks of epidural, induction, and cesarean before consenting to have the intervention, the majority—including mothers who had experienced the intervention, women who were experienced mothers, and women who had attended childbirth classes—did not know the complications of induction or cesarean. These findings raise important questions about the outcomes of childbirth education. The factors that may contribute to these findings are discussed, and suggestions are made for insuring that women have the knowledge they need to make informed decisions about their maternity care.

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Lamaze members can view the entire report of the *Listening to Mothers II* survey by logging in to the Lamaze Web site (www.lamaze.org). Others can purchase the full report from the Childbirth Connection Web site (www.childbirthconnection.org), where the Executive Summary of the report is also available to the public.

READER'S QUESTION

I am a mother of two young children, and I work for the March of Dimes as a parent advocate. I listened to your presentation “Lessons Learned from *Listening to Mothers II*” at a conference I recently attended. I was not surprised at many of the results of *Listening to Mothers II*. However, I was stunned at the research you presented related to care practices that promote, support, and protect normal birth and how different my birth experiences and the experience of the mothers surveyed in *Listening to Mothers II* were. I attended childbirth education classes and read everything that I could get my

hands on during my first pregnancy, and I did *not* know most of what you discussed. I did not know that epidurals affect the baby and, like most of the mothers surveyed in *Listening to Mothers II*, I had an intravenous and continuous electronic fetal monitoring because I was told it would make labor safer for me and for my baby. I attended childbirth classes so I could be better informed about what to expect and to learn what was best for me and my baby. What a shock to find out that I did not have the information I needed to make informed decisions about my care!

COLUMNIST'S REPLY

Your experience appears to be the typical experience of women in the United States today. Findings from *Listening to Mothers II: Report of the Second National U.S. Survey of Women's Childbearing Experiences* indicate that 97% of mothers want to know all or most of the complications of cesarean, epidural, and inductions before agreeing to have these interventions (Declercq, Sakala, Corry, & Applebaum, 2006). Most mothers, however, including the mothers who experienced the intervention, did not know the complications associated with these interventions (Declercq et al., 2006).

What is troubling about your experience is that you sought out information, including attending childbirth classes. An important goal of childbirth education is to provide the full information necessary for making informed decisions. *Listening to Mothers II* reports that, although most women who attended childbirth classes stated they were more confident in their ability to give birth, a majority of the mothers also reported they had more trust in their hospitals (60%), were less afraid of medical interventions (58%), and had greater trust in their caregivers (54%) after attending classes (Declercq et al., 2006). Eighty-eight percent of the mothers reported a better understanding of their maternity care options (Declercq et al., 2006). The *Listening to Mothers II* report did not examine whether there were differences in knowledge and decision-making actions between women who attended classes and those who did not.

Your question prompted me to wonder if your experience is typical of the women who attend childbirth classes. Are women who attend classes more likely to want full information? Are women who attend classes more knowledgeable about complications of interventions?

DO CHILDBIRTH CLASSES AFFECT KNOWLEDGE AND DECISION-MAKING?

The *Listening to Mothers II* sample included mothers who had attended childbirth classes in the most recent pregnancy, those who had attended classes in a previous pregnancy, and those who had never attended a childbirth class. Fifty-six percent of first-time mothers had attended childbirth classes, but only 9% of experienced mothers had attended classes in the most recent pregnancy, 47% of experienced mothers had taken classes in a previous pregnancy, and 44% of experienced mothers had never taken classes. Among all the mothers who

completed the survey, 25% had attended classes in the most recent pregnancy (Declercq et al., 2006).

Method

For an overview of the *Listening to Mothers II* methodology, see pages 15–17 of this journal issue. To answer the survey questions related to knowledge and decision-making about specific interventions, the survey's sample was divided randomly into three groups; each subset of mothers was asked how much information they should be given concerning possible complications associated with labor induction, epidural analgesia, or cesarean section. Almost all mothers said it was necessary to know every or most side effects of labor induction (97%), cesarean (98%), and epidural (97%). To answer the survey question related to knowledge of the specific side effects of interventions, the mothers were randomly assigned to two groups. One group received statements concerning the adverse effects of cesarean section, and the second group received statements about induction. The mothers were asked to agree (“strongly” or “somewhat”) or disagree (“strongly” or “somewhat”) with each statement. In no instance did a majority of mothers know the accurate information. Almost half of the mothers were unsure about complications of cesarean, with an additional 22–31% answering incorrectly. The majority of the mothers was not sure or was incorrect in knowing the complications of induction. Having experienced an intervention did not improve performance (Declercq et al., 2006).

With the permission of the researchers, I did additional analysis of the *Listening to Mothers II* data to determine whether experienced mothers and mothers who had attended childbirth classes were (a) more interested in receiving full information about complications of interventions and (b) more knowledgeable about the possible side effects of induction and cesarean section. I compared the responses of four comparison groups:

“There is a huge difference from hospital to hospital. Nursing staff and their level of expertise also varies greatly. Making sure you are well informed and having a birthing plan that you stand up for is very important. Many in health care seem to have forgotten how natural giving birth is.” – Survey respondent in *Listening to Mothers II*

1. first-time versus experienced mothers,
2. mothers who attended classes in the most current pregnancy versus those who did not,
3. mothers who attended classes in a previous pregnancy versus those who did not, and
4. mothers who had attended classes either in the current or a previous pregnancy versus those who had never attended childbirth classes.

The chi-square test was used to determine differences between the comparison groups. Although it is common to accept a $p < .05$ level of significance when testing for differences between subgroups, in order to reduce the possibility that differences are based on random variation, consistent with what was done in the larger study, I used $p < .01$ as the cutoff in identifying differences in the groups being compared. Comparisons where the differences are statistically significant at the $p < .01$ level based on a chi-square test are indicated by bold italic numbers in Tables 1 and 2. In Tables 2 and 3, the “strongly agree/disagree” and “somewhat agree/disagree” responses are combined to become either the correct or incorrect response, based on the evidence supported by the literature.

Results

There were few differences in the mothers’ overwhelming desire for information about the compli-

cations of labor induction, cesarean, and epidural analgesia. Most mothers, including experienced mothers and women who had attended childbirth classes, did not know the complications of induction or cesarean.

Mothers’ interest in knowing about complications of specific intervention. Most of the mothers wanted to know all or most complications of induction, cesarean, and epidural (see Table 1). Experienced mothers who had *not* taken classes were more likely to want to know *every* complication of labor induction compared to experienced mothers who had taken classes in a previous pregnancy, and compared to all women who had taken classes. Experienced mothers who had *not* taken classes were also more likely to want to know *every* complication of cesarean compared to experienced mothers who had taken classes in a previous pregnancy. Experienced mothers who had *not* taken classes were more likely to want to know *every* complication of epidural compared to experienced women who had taken classes in a previous pregnancy.

Mothers’ knowledge of labor induction complications. Experienced mothers and mothers who had

TABLE 1
Mothers’ Interest in Knowing About Complications of Specific Interventions^a

	Parity		Class in Most Recent Pregnancy		Class in a Previous Pregnancy		Class in Any Pregnancy	
	1	2+	No	Yes	No	Yes	No	Yes
Before consenting to labor induction, how important is it to learn about possible side effects of labor induction?								
	<i>n</i> = 154	<i>n</i> = 370	<i>n</i> = 388	<i>n</i> = 137	<i>n</i> = 154	<i>n</i> = 216	<i>n</i> = 212	<i>n</i> = 312
Necessary to know every complication	74.7	80.3	80.9	72.3	85.1	76.9	84.9	74.4
Necessary to know most complications	24.0	16.8	16.1	24.8	11.0	20.8	12.3	23.4
Necessary to know some complications	1.3	2.3	1.5	2.9	1.9	2.3	1.4	2.2
Not necessary to know any complications	0.0	0.8	0.1	0.0	1.9	0.0	1.4	0.0
Before consenting to cesarean, how important is it to learn about possible side effects of cesarean?								
	<i>n</i> = 165	<i>n</i> = 328	<i>n</i> = 381	<i>n</i> = 112	<i>n</i> = 171	<i>n</i> = 156	<i>n</i> = 241	<i>n</i> = 252
Necessary to know every complication	75.8	84.1	82.9	75.9	88.9	78.8	85.9	77.0
Necessary to know most complications	21.8	14.3	15.2	22.3	11.1	17.9	13.3	20.2
Necessary to know some complications	2.4	1.5	1.8	1.8	0.0	3.2	0.8	2.8
Before consenting to an epidural, how important is it to learn about possible side effects of an epidural?								
	<i>n</i> = 200	<i>n</i> = 349	<i>n</i> = 411	<i>n</i> = 138	<i>n</i> = 155	<i>n</i> = 144	<i>n</i> = 234	<i>n</i> = 316
Necessary to know every complication	69.5	85.1	82.0	71.7	87.7	83.0	81.6	77.5
Necessary to know most complications	28.0	12.0	14.6	27.5	10.3	13.4	15.0	19.9
Necessary to know some complications	2.0	2.3	2.9	0.0	3.1	1.3	2.6	2.2
Not necessary to know any complications	0.5	0.6	0.5	0.7	0.5	0.6	0.9	0.3

Note. Bold italics indicate differences that are significant at the .01 level.

^aEach survey respondent was randomly assigned to respond to this question with respect to labor induction, cesarean, or epidural.

taken classes in their most current pregnancy or in a previous pregnancy were more likely to know that labor induction does not lower the chance that a woman will give birth by cesarean (see Table 2). Experienced mothers who had *not* taken classes were more likely than experienced mothers who had taken classes in a previous pregnancy to know that drugs used to induce labor increase the chance of the baby's distress. Only one third of women in every group were correct in knowing that induction is not supported if a baby appears large at the end of pregnancy.

Mothers' knowledge of cesarean complications.

There were no statistically significant differences between mothers who took classes and those who did not take classes in knowledge about the risks of cesarean (see Table 3). Compared to first-time mothers, experienced mothers were just as likely to know that having a cesarean does not prevent problems with incontinence; however, for mothers who did not know the correct answer, experienced mothers were more likely to "agree somewhat" with the incorrect statement, and first-time mothers were more likely to "agree strongly" with the incorrect statement (the total of "agree somewhat" and "agree strongly" is noted in Table 3 and the differences are not significant).

Although not statistically significant, several findings are worth noting. Compared to experienced mothers who had never taken classes, *fewer* experienced mothers who had taken classes in a pre-

vious pregnancy were correct in knowing that having a cesarean increases the chance of serious problems with the placenta in future pregnancies. Also, experienced mothers were correct more frequently than first-time mothers in knowing that having a cesarean increases the risk of needing a blood transfusion or emergency hysterectomy. First-time mothers and experienced mothers who took a class in a previous pregnancy, and all mothers who had taken a class compared to mothers who had not taken classes, were more often correct in knowing that a cesarean increases the risk of a baby having breathing problems and increases the chance of serious problems with the placenta in future pregnancies.

Discussion

The results are disturbing. Although mothers want to know all or most risks associated with induction, cesarean, and epidural, they do not have this knowledge, even if they attended childbirth classes. The findings are compelling for a number of reasons, and they raise important questions that need to be addressed.

It would have been interesting to know the kind of childbirth education classes that the mothers actually attended. Almost all the mothers surveyed attended classes in hospitals or physicians' offices. Are there different outcomes when women attend private classes? Was the teacher certified and, if so, by whom? What was the philosophy of the classes? What were the personal beliefs of the teacher? Are

TABLE 2
Mothers' Knowledge of Labor-Induction Complications

	Parity		Class in Most Recent Pregnancy		Class in a Previous Pregnancy		Class in Any Pregnancy	
	Parity 1	Parity 2+	No	Yes	No	Yes	No	Yes
Proportion recognizing that ...								
... drugs used to induce labor increase the chance of the baby's distress.								
	<i>n</i> = 122	<i>n</i> = 330	<i>n</i> = 367	<i>n</i> = 84	<i>n</i> = 145	<i>n</i> = 185	<i>n</i> = 200	<i>n</i> = 252
Correct	60	64	62	65	68	61	76	61
Incorrect	40	36	38	35	32	39	24	39
... induction is not supported if a baby appears to be large at the end of pregnancy.								
	<i>n</i> = 164	<i>n</i> = 360	<i>n</i> = 414	<i>n</i> = 111	<i>n</i> = 165	<i>n</i> = 196	<i>n</i> = 240	<i>n</i> = 285
Correct	32	33	32	35	37	30	33	33
Incorrect	68	67	68	65	63	70	67	67
... induction does not lower the chance that a woman will give birth by cesarean.								
	<i>n</i> = 119	<i>n</i> = 291	<i>n</i> = 334	<i>n</i> = 76	<i>n</i> = 131	<i>n</i> = 161	<i>n</i> = 189	<i>n</i> = 220
Correct	56	73	69	60	67	77	62	73
Incorrect	44	27	31	40	33	23	38	27

Note. Bold italics indicate differences that are significant at the .01 level.

TABLE 3
Mothers' Knowledge of Cesarean Complications

	Parity		Class in Most Recent Pregnancy		Class in a Previous Pregnancy		Class in Any Pregnancy	
	Parity 1	Parity 2+	No	Yes	No	Yes	No	Yes
Proportion recognizing that cesarean . . .								
. . . increases the chance of serious problems with the placenta in any future pregnancies.								
	<i>n</i> = 116	<i>n</i> = 287	<i>n</i> = 302	<i>n</i> = 103	<i>n</i> = 124	<i>n</i> = 166	<i>n</i> = 155	<i>n</i> = 252
Correct	41	55	44	42	49	42	45	42
Incorrect	59	45	56	58	51	58	55	58
. . . increases the chance that a woman will have a blood transfusion or emergency hysterectomy.								
	<i>n</i> = 131	<i>n</i> = 304	<i>n</i> = 319	<i>n</i> = 116	<i>n</i> = 126	<i>n</i> = 176	<i>n</i> = 165	<i>n</i> = 270
Correct	43	55	47	37	49	42	51	59
Incorrect	57	45	53	63	51	58	49	41
. . . does not lower the chance that a baby will have breathing problems at the time of birth.								
	<i>n</i> = 126	<i>n</i> = 296	<i>n</i> = 317	<i>n</i> = 105	<i>n</i> = 126	<i>n</i> = 170	<i>n</i> = 167	<i>n</i> = 254
Correct	69	60	62	64	56	63	61	64
Incorrect	31	40	38	36	44	37	39	36
. . . does not prevent problems with incontinence later in life								
	<i>n</i> = 122	<i>n</i> = 289	<i>n</i> = 301	<i>n</i> = 111	<i>n</i> = 117	<i>n</i> = 174	<i>n</i> = 153	<i>n</i> = 259
Correct	49	50	52	44	54	47	53	48
Incorrect	51	50	48	56	46	53	47	52

VI

See pages 25–37 of this journal issue for Morton and Hsu's (2007) ethnographic study of childbirth education, describing the dilemmas that American childbirth educators face.

some classes more effective than others in providing accurate, evidence-based information?

The Morton and Hsu (2007) ethnographic study of childbirth education describes the dilemmas that the childbirth educator faces, and these dilemmas are probably reflected in the findings of *Listening to Mothers II* (Declercq et al., 2006) related to childbirth education. Morton and Hsu provide insight into the context in which childbirth education takes place and suggest the possibility that these dilemmas have an effect on both the process and the outcomes of childbirth education. How often is information withheld? Do women understand the implications of information that is often cloaked in medical jargon? How frequently do hospital-based childbirth educators present routine hospital policies as necessary, although not evidence-based, practices? Are we giving women mixed messages by claiming that they know how to give birth without routine interventions, but then encouraging them to follow hospital directives? Is this responsible, in part, for the mothers who attended childbirth classes reporting that they were less fearful of medical interventions and more trusting of their caregiver and hospital after attending classes?

Do childbirth educators have a clear vision of what should be happening in classes? Is it possible that many childbirth educators do not have an adequate understanding of evidence-based maternity

care? Do they have personal beliefs that prevent them from embracing and teaching best evidence in their classes? Do they tiptoe around the issue of choice, understanding that, in many hospitals, women have few real choices, especially after they have chosen a caregiver? Are childbirth educators reluctant or unwilling to provide information that might ultimately influence women's previously made decisions? Do childbirth educators have a conflict of interest between providing good information and guidance to women and loyalty to their employer or fear of losing their jobs? Are other sources of information—such as the Internet, books, and caregivers—more powerful ways of conveying critical knowledge than childbirth classes?

There is a need for exploring all of these ideas and a critical need for further research in order to develop a greater understanding of what is happening in classes for women and childbirth educators. *Listening to Mothers II* (Declercq et al., 2006) and Morton and Hsu (2007) provide a solid foundation for moving forward.

LESSONS LEARNED FROM *LISTENING TO MOTHERS II*

We can let go of the myth that women are making informed decisions about their care. Although women want the full information required to make informed decisions, they are not getting

that information, even if they attend childbirth classes. In this journal issue's guest editorial (see pp. 7–8), Jennifer Block, author of *Pushed: The Painful Truth About Childbirth and Modern Maternity Care* (2007b), notes:

[The] information I think pregnant women need most is (a) there *is* such a thing as optimal maternity care, and (b) they're not likely to have it in this country unless they work hard to find the right provider or start demanding better practices from the ones they've got. (2007a, p. 8)

Making careful decisions based on best evidence is the safest, most effective way for mothers to protect themselves and their babies. Women's lack of knowledge—including misinformation (rampant in books and on the Internet and encouraged by too many hospitals, caregivers, and sometimes even childbirth educators)—and the choices that are made as a result have contributed to the escalating induction and cesarean rates as well as to the increase in maternal mortality in the United States. It is time to give women what they are asking for: accurate, understandable information about optimal maternity care. It is important to know that “providing all risks and benefits that a reasonable person in the situation would want to know to make an informed decision” is now the legal standard in many, if not all, jurisdictions and in contrast to the older, “reasonable professional” standard—that is, what “similar physicians in the same or a similar community would disclose” (American College of Obstetricians and Gynecologists, 2005, p. 21).

Childbirth educators are in a powerful position to facilitate women's understanding of what constitutes optimal maternity care and what will help them receive optimal care. This will be very difficult. As childbirth educators, we need to come to terms with the dilemmas we face. We need to resist the pressure to withhold information. It may be time to rethink the process and the content of childbirth classes. Nolan (2005) suggests that childbirth classes become a forum for thoughtful discussion that helps women reach their own conclusions. The educator moves from expert to facilitator and, rather than providing huge amounts of information and giving advice, she facilitates individual and group learning. Is it time to move childbirth

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education out of the hospital? Should classes start in the first trimester, when critical decisions about provider and place of birth are made? Are there other models of delivering childbirth education that can be explored (e.g., see De Vries, C., & De Vries, R., 2007)?

It is time for childbirth education to make a difference, again.

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See pages 38–48 of this journal issue for C. De Vries and R. De Vries's (2007) suggestions on creating a fresh model of childbirth education.