The Nocebo Effect in Childbirth Classes

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ABSTRACT

Patients are well-known to experience a placebo response to medications or treatments. It is less well-known that they can also experience a nocebo response where they have negative effects from something that should be ineffective. In recent literature, the words of medical providers have been demonstrated to create illness responses without physical cause. This column examines ways in which the content and teaching techniques that are often part of Lamaze childbirth education may elicit a nocebo response and negatively influence women's confidence and ability to give birth.

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Heath-care providers are familiar with the placebo response. With a placebo response, the recipient of a medication or medical treatment experiences a benefit or desired health outcome based solely on his or her beliefs and expectations. Some patients feel better after taking a medication even when the medication is merely a sugar pill and sometimes request a refill knowing that the medication is only sugar. Since the 1990s, there is increasing discussion in the literature of a nocebo effect and response. Häuser, Hansen, and Enck's (2012) review of the literature defines the nocebo effect as the induction of a symptom perceived as negative by sham treatment and/or by the suggestion of negative expectations. A nocebo response is a negative symptom induced by the patient's own negative expectations and/or by negative suggestions from clinical staff in the absence of any treatment (p. 459).

Häuser et al.'s (2012) review of the literature suggests that the nocebo effect is not limited to a patient's response to medications or medical treatments. The words of nurses and doctors can affect people negatively as well. They suggest that in everyday clinical practice, nurses and doctors contribute to unintended negative suggestion in the way they communicate: using jargon ("the cancer has metastasized"), causing uncertainty ("this drug may help"), ambiguity ("you're going to sleep, it will soon be over"), focusing attention ("are you feeling nauseous?"), emphasizing the negative ("you are a high-risk patient"), and trivializing ("you shouldn't worry"). In addition, they note that people appear to be highly susceptible to negative suggestion when in a stressful situation.

After reading about the nocebo effect, I began to wonder if pregnant women, women in labor, and new mothers are particularly vulnerable to the

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nocebo effect. Is it possible that what is taught in childbirth classes and how it is taught, including the words childbirth educators use, may unintentionally create a nocebo response and in doing so decrease women's confidence and ability to give birth?

THE NOCEBO EFFECT AND CHILDBIRTH EDUCATION

Hucker's (2011) qualitative study, "Complications in the Classroom: An Investigation of Childbirth Preparation Classes" describes several scenarios that suggest the possibility of women easily becoming vulnerable to a nocebo response. Hucker observed two series of childbirth education classes each taught by a different instructor. She found that two different views of birth were presented in the classes: birth as a normal, physiologic process and the current medicalized approach to birth. The positive aspects of each model were presented, yet the negative aspects were not.

When discussing the medical model, participants were encouraged to be flexible and rely on their doctors' expertise in decision making. The birth plan was merely a suggestion of how a woman wanted her labor to be managed and women were encouraged to be flexible so there would be a safe outcome—managed by the medical staff. "In instances of safety, participants were to trust their providers and their choices would assumedly be set aside; the flexibility highlighted in class prepares participants for this experience" (Hucker, 2011, p. 97). When discussing progress in labor, there was a reliance on numbers (effacement and dilatation) to measure the progress of birth rather than encouraging women to trust that labor would begin and proceed as nature intends. The expectations of progress were described in terms of how many hours rather than the woman's very individual physical progress. Women were not informed that "deviation from this arbitrarily defined 'normal' rate of dilation should be indication for evaluation rather than intervention" (Enkin, 2000, p. 333). They were also not told that when and whether vaginal exams during labor are done, it should be at the women's request (Hucker, 2011).

Woman-centered information was sometimes presented alongside medicalized information with equally positive emphasis and little information about the risks or harms of routine interventions or of the incompatibility, at times, of the physiologic women-centered versus the medical model of birth. Class participants could easily believe that woman-centered birth where the mother is the decision maker and a medicalized birth where the doctor is the decision maker were compatible. Mothers in these classes were not aware that with epidural anesthesia, elements of their birth plan involving eating, drinking, and freedom of movement were not possible. In another example, a video was shown teaching medical interventions, and although the risks were presented, the emphasis was on freedom from pain and safety of the birth. The images of women receiving medicalized pain relief reenforced the benefits of medical pain relief interventions over nonpharmacological pain relief methods because the images were stronger than the bland narration of the negative effects of medication. Women who were actively working with labor did not appear as happy as the women who received epidurals.

In the childbirth classes that Hucker observed, there was ample opportunity for women to have a nocebo response and the possibility that this could affect outcomes.

IMPLICATIONS FOR CHILDBIRTH EDUCATORS

Although there has been no research on the nocebo effect or response related to pregnancy and childbirth, the research on patients in general suggests that pregnant and laboring women may be particularly vulnerable. The information childbirth educators present and the words we use to communicate this information may unintentionally contribute to women experiencing a nocebo response.

Communication

Words are powerful and the language we use could possibly cause students to value either medicalized or physiologic birth. Take the word "delivery." Where is the power placed when we say the baby was delivered (to the doctor) or when we say the baby was born (the mother gave birth to her baby.). Think about other things we might be saying and how they may decrease the mother's autonomy and self-determination at her birth:

- "If everything is all right, your baby will be placed skin-to-skin with you for bonding and

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breastfeeding." Women's interpretation could easily be, "There is a chance your baby will have a problem and need to be taken away from you right after birth." In reality, the best place for infants to acclimate to the outside world is next to their mothers where temperature, heart rate and respirations are calm and efficient. This should be standard care.

- "A heparin lock will be placed in your arm in case medications are necessary." Interpretation: Birth is a dangerous process and the medical staff may need to give you lifesaving medications at any time. In reality, the evidence suggests that this is simply not true. A mother's body has hormonal orchestration and feedback loops that adjust the hormones, electrolytes, blood supply, cardiovascular system, and so forth to provide safe and efficient birth.
- "You'll need to check with your doctor to see if your birth plan will work in this facility." Interpretation: You can't give birth. You will need to be birthed and the doctor will decide how to manage your birth. Reality: Parents need to know that their choices of facility and provider will have the greatest impact on their ability to give birth rather than being birthed.

When both medical and physiologic women-centered models of care are given equal emphasis, the negative suggestion will probably win out . . . nocebo effect. Parents are both more vulnerable in the moment and will do what they perceive as "safest" for their baby.

Content

How we choose what information we will provide parents is as important as the delivery of that information. What we emphasize becomes the take-home messages for parents.

Looking at our topic outlines, it's important to look at the amount of time that is spent on physiologic birth and medicalized birth. In a 12-hour series, let's say we spend 1 hour watching and discussing a cesarean video and another hour providing detailed information about interventions. Another hour is added to present medications and thoroughly explain epidural placement. Then one fourth of the total class time is spent communicating that there is a risk. The message they hear is not one of being prepared but that something will go wrong and they should know this information so they can ask questions of their doctors.

Emphasizing the need for flexibility related to birth plans can also, as Hucker (2011) found, set the stage for safety concerns; as defined by obstetrics, shaping the way labor and birth proceed rather than the woman's preferences. The women who attend childbirth classes come to us frightened and stressed. They have already been infused with fear about childbirth from the books kind friends have given them, the television births they have watched, and their friends' birth experiences (one third of whom have probably had cesareans). By the time women attend childbirth classes, they have had several months of prenatal care that "expects trouble." Many women have been identified by their doctors as "high risk." They will give birth in hospitals that make it difficult to avoid routine interventions that have rules restricting movement, eating and drinking, and positions for pushing. All of this contributes to women's sense that birth is a medical (and risky) rather than a normal, physiologic event.

Keeping in mind the nocebo effect, we can structure our classes around the six healthy birth practices emphasizing that unless there is a medical indication, allowing the normal, natural physiologic process of birth to unfold without interference is the safest and healthiest birth for mother and baby (Lothian, 2009). In describing labor that starts on its own, we can emphasize the hormones that work so brilliantly to moderate contractions, to ease pain, and facilitate the progress of labor. When we discuss social support, parents can be invited to create a list of what they'll need in labor, birth, and postpartum and invite friends and family to meet those needs. Freedom of movement is best learned through labor rehearsals that allow parents to modify their positions, breathing techniques, and environment for maximum comfort and relaxation. Encouraging parents to move around at will during class gives them control over their comfort and gives them a message we would like them to remember in labor and birth. *Ina May's Guide to Childbirth* (Gaskin, 2003) empowers women to avoid unnecessary

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interventions with information about "Sphincter Law" where external influences can open or shut the cervix. Lending libraries should include empowering literature such as *The Official Lamaze Guide: Giving Birth with Confidence* (Lothian & DeVries, 2010), and *The Birth Partner: A Complete Guide To Childbirth for Dads, Doulas, and All Other Labor Companions* (Simkin, 2008). These three books, as well as others, remind women how well their bodies work to give birth, in stark contrast to most birth books that remind women of everything that can go wrong. *Everyday Miracles*, an intervention free birth video, shows women-centered births in hospital settings.

Decision Making

Hucker (2011) emphasizes that an important question for parents to ask is "How are decisions made in labor and birth and the immediate postpartum?" Birth plans suggest that the mother indicates her preferences for how she plans to give birth. She may decide that several people in the room will help distract her or she may decide that she will need quietness and privacy to be comfortable. In considering her own ways of managing pain, she may decide that walking around, dancing and singing, rocking, warm water, and fruit juices will help her progress. She has done the self-education to produce her birth plan and is looking forward to birth under these circumstances. She has learned that use of analgesia or anesthesia will alter her ability to have some of these preferences. If she is then told by her Lamaze educator to "check with her doctor" to make sure there will be no problems with her birth plan, a clear message that she is not the one making decisions about her birth has been given, unintentionally. This one simple statement takes away her power to decide how she will give birth. If the childbirth educator suggests that she discuss her birth plan with her doctor and that the birth plan be included in her chart at the hospital so those caring for her can enable her choices, a very different message is given. This approach validates her right and ability to design her birth environment to meet her personal needs.

Simkin's (2008) list of questions to ask when considering a medical test, procedure, or treatment is an invaluable resource for parents (pp. 202–203). These questions may be used in class during discussions of interventions. Parents may practice in small groups asking these questions when an intervention or medication is suggested. This is an important way to discuss the possibility of the need for interventions and avoid setting the stage for a nocebo response.

Hucker (2011) describes how information was given in one class she observed related to avoiding episiotomies:

> *While the class did address how to avoid an episiotomy through techniques such as "Kegel or pelvic floor contraction exercises," and "good nutrition to promote healthy tissues," it failed to take into account couples' abilities to select their care provider based on the performance of these procedures. Surely in avoiding an episiotomy as well as other medicinal and technical interventions, the choice of practitioner is a relevant one . . .*" (p. 41)

SUMMARY

Although there has been no research that specifically studies the nocebo effect in pregnancy and birth, it seems that being aware of the nocebo effect has the possibility of assisting childbirth educators in the design of classes and provides guidance for our communication with women.

Nocebo responses increase with stress and worry about what can go wrong in labor and birth. When Lamaze class educators spend more time on the dangers of birth, there is a possibility that more women are likely to experience them. The risks and harms of birth interventions are increasing because medical care overuses and abuses the available technology. Birth advocates are constantly examining the roots of childbirth fear and creating ways to empower parents in pregnancy, birth, parenting, and breastfeeding.

When we acknowledge that our words and actions can unintentionally contribute to poorer outcomes in birth, we can go on to examine how and what we teach. If our Lamaze childbirth classes, in any way, suggest that labor and birth are fraught with the possibility of things going terribly wrong rather than presenting information in a way that communicates to women that not interfering in the normal, physiologic process of birth without a clear medical indication is the safest and healthiest way to give birth, then it is possible that we are increasing the risk of women having a nocebo response. The research on the nocebo effect and response suggests that teaching "just in case" medical management makes it more likely that medical management will be needed. Our words, our audiovisual materials, and our teaching can unintentionally increase

women's fear and decrease her confidence making it less likely that, when she goes into labor, she will be confident in her ability to give birth.

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