REFERENCE

Rogers ME: *An Introduction to the Theoretical Basis of Nursing.* Philadelphia, F.A. Davis, 1970.

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To the editor:

Margarete Sandelowski's approach to ethical issues in reproductive technology is interesting and challenging but very narrow in its interpretation of the role of nursing intervention. Her point is well taken that nurses generally have accepted technological advances uncritically "in hopes of extending nursing's sphere of influence and humanizing increasingly machine-oriented health care." To then claim that reproductive technology is challenging the foundation of nursing by altering nurse touch is to deny nurses' problem-solving skills and ingenuity; no nurse worth her salt finds fetal monitor belts a barrier to back rubs, effleurage, or any form of physical or emotional support. Nurses who will sit at a central monitor station watching a contraction strip rather than be in the room with the laboring woman are the same nurses who sat at the central desk talking to each other prior to the advent of modern technology. During in vitro fertilization attempts, the conscientious nurse is still there holding the patient's hand, explaining what is going on, assessing, validating, and utilizing the woman's own perceptions, sharing her feelings of joy or disappointment at the outcome of egg retrieval.

Sandelowski's views about the bonding process are equally one-sided. While it is important to consider the potential long-term effects of externalizing knowledge about the fetus, as may occur with early ultrasonography, it is equally necessary to consider the effect of improved outcome (resolution of infertility and reduced fetal wastage) that the new technologies have brought us.

If an argument can be made that reproductive technology is valenced toward both attachment and separation, then perhaps it is not valenced at all, but simply available to be used as directed by the particular nursing values system that is responsible for its application; as nurses who believe in the dignity of the individual we should be putting our emphasis on creative nursing interventions that embody holistic principles and empathetic touch.

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Author's reply

I appreciate the interest in my article. I was warned the article might generate some controversy, although I have also received comments affirming the ideas I presented. In the article, I integrated the ideas of feminist scholars, who see the dystopian potential of these technologies, with those of more sanguine observers and clinicians. I presented this integration in language I believe conveys tentativeness, speculation, and suggestion. Nowhere do I assert that nurses or childbearing women are unfeeling or conditioned automatons. Nor did I assert one rigid view of women's needs or maternal-infant attachment, or suggest the lack of any beneficial outcomes of these technologies for women and infants. The article does not in any way contradict the idea of recognizing diverse world views and environments. Lethbridge's discussion of the impact of amniocentesis supports the thesis of the article that technology is altering the way women experience childbearing and that these changes must be acknowledged and explored.

What I do assert, with the assistance of sensitive feminist scholars, is that integral to each technology is a system of values, assumptions,

and orientations that may be antithetical to the user's system. The observation about monitor belts, for example, was intended to demonstrate how the design of machines can alter the behavior of their users. Suggesting that monitor straps can interfere with nurse touch is not claiming that nurses do not overcome the barriers they pose to touching; it is asserting that these machines do pose barriers, (physical, if not also psychic). I have experienced these barriers myself; I have also struggled to overcome them. The point is that these machines can engender such a struggle just by virtue of their existence; no one has to attribute any nefarious motives or activities to their designers or users, nor implicate them in poor obstetric outcomes.

The idea of the valence or charged nature of technology is critical. To believe the machines we interact with are neutral is to be blind to how they change us and challenge us as caregivers. To persist in the belief that nurses operate in a field resistant to these changes is to dangerously underestimate their powerful attraction for us.

I am distressed that Lethbridge interpreted my use of Stewart's observation on television conditioning as "patronizing" to women. We are all being shaped by visual technologies such as ultrasonography and television. There is extensive literature concerning television, and emerging literature on ultrasonography that indicates how subtle and pervasive this conditioning is. I do not patronize anyone by stating an important cultural reality. I am as conditioned as anyone. Moreover, in the article, I report that Starkman found that some women were relieved to have machines provide their caregivers with information; I do not label or otherwise disconfirm women as nurses or mothers by reporting another researcher's observations of some women's responses to technology. Lethbridge has inaccurately juxtaposed the comments on conditioning and relief to support an assertion I have not made.

There is very little substantive information on women's responses to ultrasonography and amniocentesis, but I have presented the views of this technology as offered in the literature. What we do know, and what my own work with women suggests, is that we cannot prematurely claim that "women love seeing their developing fetuses through the experience of ultrasonography." Women do have ambivalent and, at the very least, varied feelings about prenatal surveillance technology, and nurses should maintain a critical and cautionary stance toward all medical technologies, especially because they are not really the tools of our trade.

Critical scholarship in the history of medical technology documents the need for concerned caregivers to find the real agenda behind so-called technological advancements for women. Ultrasonography is already being used, not only for the diagnosis for which it was intended, but also to control women's behavior in the matter of elective abortions. In my article, I cite individuals who view ultrasonography as treatment—as a measure to compel the "right" maternal behavior during pregnancy and to induce maternal love. We cannot judge commodities we have not critically examined and over which (by choice or circumstance) we still exercise very little control.

Finally, Ruth Schwartz Cowan, one of the most insightful scholars in the history of women and technology observed that tools are useful for many purposes but set limits on our work. We try to use the appropriate tools for a job but they can organize our work differently from the way we anticipated it. The less we know about the tools, the more likely it is that they will command us.

REFERENCE

Cowan RS: *More Work for Mother: The Ironies of Household Technology from the Open Hearth to the Microwave.* New York, Basic Books, 1983, pp 9-10.

—Margarete Sandelowski