



WILEY-
BLACKWELL

A · M · E · R · I · C · A · N
A N T H R O P O L O G I C A L
A S S O C I A T I O N

The Production of Authoritative Knowledge in American Prenatal Care

Author(s): C. H. Browner and Nancy Press

Source: *Medical Anthropology Quarterly*, New Series, Vol. 10, No. 2, The Social Production of Authoritative Knowledge in Pregnancy and Childbirth (Jun., 1996), pp. 141-156

Published by: Blackwell Publishing on behalf of the American Anthropological Association

Stable URL: <http://www.jstor.org/stable/649325>

Accessed: 01/05/2009 21:35

Your use of the JSTOR archive indicates your acceptance of JSTOR's Terms and Conditions of Use, available at <http://www.jstor.org/page/info/about/policies/terms.jsp>. JSTOR's Terms and Conditions of Use provides, in part, that unless you have obtained prior permission, you may not download an entire issue of a journal or multiple copies of articles, and you may use content in the JSTOR archive only for your personal, non-commercial use.

Please contact the publisher regarding any further use of this work. Publisher contact information may be obtained at <http://www.jstor.org/action/showPublisher?publisherCode=black>.

Each copy of any part of a JSTOR transmission must contain the same copyright notice that appears on the screen or printed page of such transmission.

JSTOR is a not-for-profit organization founded in 1995 to build trusted digital archives for scholarship. We work with the scholarly community to preserve their work and the materials they rely upon, and to build a common research platform that promotes the discovery and use of these resources. For more information about JSTOR, please contact support@jstor.org.



American Anthropological Association and Blackwell Publishing are collaborating with JSTOR to digitize, preserve and extend access to *Medical Anthropology Quarterly*.

<http://www.jstor.org>

C. H. BROWNER

NANCY PRESS

Mental Retardation Research Center

Department of Psychiatry and Biobehavioral Sciences

University of California, Los Angeles

The Production of Authoritative Knowledge in American Prenatal Care

Using Jordan's concept of authoritative knowledge, this article describes some of the ways that the prenatal care practices of a group of U.S. women help to consolidate biomedical hegemony. We analyze the considerations that the women took into account when deciding whether or not to accept specific prenatal care recommendations as authoritative, focusing on when and how they used their own "embodied" knowledge and experience as a standard against which to assess the validity of clinical recommendations. The data provide insight into medicalization processes and the role patients themselves play in furthering biomedical hegemony. [medicalization, authoritative knowledge, reproduction, prenatal care, United States]

Recent attention has focused on strategies by the institution of biomedicine to attain medical hegemony in U.S. society. In contrast, there has been little research on the role individual patients may play in contributing to this process. Drawing on Jordan's concept of authoritative knowledge (AK), this account examines the circumstances under which a group of pregnant women in the U.S. facilitated biomedical expansion by accepting the advice offered by their prenatal care providers. We consider the significance of competing forms of knowledge, particularly "embodied knowledge," in determining which biomedical recommendations the women incorporated into their own pregnancy-related self-care routines. We also discuss some of the other criteria the women used when deciding whether or not to follow biomedical recommendations.

We will examine the role of biomedical technology in dislodging women's confidence in embodied knowledge and in consolidating biomedical AK in prenatal care. Embodied knowledge guided many of women's decisions about whether or not to accept specific prenatal recommendations in areas of prenatal care not yet subject to technological surveillance. Women also rejected biomedical recommendations they could not easily incorporate into their ongoing daily life circumstances.

Medical Anthropology Quarterly 10(2):141-156. Copyright © 1996 American Anthropological Association.

Yet few refused the offer of ultrasound or other forms of prenatal diagnostic screening. We argue that this is because most U.S. women regard information derived from technology as inherently authoritative knowledge (Davis-Floyd 1992; Rapp 1987).

We define embodied knowledge as subjective knowledge derived from a woman's perceptions of her body and its natural processes as these change throughout a pregnancy's course (Belenky et al. 1986). Jordan's pioneering work documented how a group of California laywomen used embodied knowledge to accurately diagnose their own pregnant state prior to biomedical confirmation (Jordan 1977). The women employed a variety of phenomenological indicators as diagnostic criteria including breast enlargement or soreness, nipple tenderness, feelings of extreme "heaviness" or bloating, food cravings, and intolerance to particular foods or smells. Other research found that women in the Colombian city of Cali used these same phenomenological indicators as well as other more idiosyncratic ones such as skin discolorations and pubic itching to diagnose their pregnancies (Browner 1980).

Jordan's conceptualization of AK frames our discussion. She defines AK as rules that carry more weight than others "either because they explain the state of the world better for the purposes at hand ('efficacy') or because they are associated with a stronger power base ('structural superiority'), and usually both" (Jordan 1993[1978]:152). In nonhierarchical settings individuals choose from among several equally legitimate sets of rules or forms of knowledge. In situations of structural inequality, however, one set of rules or form of knowledge often gains authority, devaluing and delegitimizing others in doing so. Although Jordan argues that the power of AK derives in part from the fact that it is consensually constructed, she does not describe the processes through which consensus is achieved in a previously contested domain. We intend this account to cast light on this issue.

The prenatal period is our focus because it offers a rare glimpse of medicalization processes in action (Thompson et al. 1990). Although American women have, for the most part, accepted since the early part of this century the legitimacy of biomedical authority and its associated technologies such as cesarean delivery in childbirth, they continue to remain uncertain about its importance during the prenatal period (Browner 1990; Reid and Garcia 1989). Yet as indications for "high risk" pregnancies proliferate and more links are postulated between maternal behavior and negative fetal outcomes, pregnant women find themselves expected to accept intensifying prenatal surveillance (Terry 1989). Yet many are deeply ambivalent about the value of this extensive medical scrutiny (Hubbard 1995). Among patients, then, consensus is still lacking about the nature and extent of the role biomedicine should play in prenatal care.

The prenatal period provides a lens through which to examine the role laywomen play in constructing a domain of authoritative knowledge as they decide which medical advice to incorporate into their own health care practices and which to ignore. Focus on this issue can also illuminate the processes of biomedical expansion, as it reveals how technology designates certain kinds of knowledge as "authoritative" and in doing so helps drive medicalization processes.

Methods and Characteristics of the Study Population

The data analyzed here are based on interviews with 158 pregnant women who were enrolled in prenatal care at one of five branches of a health maintenance organization (HMO) located in southern California. Semistructured, open-ended, tape-recorded interviews of one-and-a-half to four hours' duration were conducted in informants' own homes or at the HMO. Tapes were transcribed, coded with Ethnograph (Seidel 1988), and subjected to content analysis; the CRISP Interactive Statistical Package (Bostrom and Stegner 1984) was used to analyze the quantifiable data. We were broadly interested in women's self-care during pregnancy, and in how they incorporated biomedical prenatal advice into their previously existing self-care routines. In gathering data, therefore, particular attention was paid not only to the changes pregnant women made in their lives due to pregnancy, but also to the sources of the information on which these changes were based.¹

Because other research has amply documented the role of ethnicity and social class in shaping attitudes toward prenatal care and women's self-care practices during pregnancy (Kay 1980; Lazarus 1994; Martin 1987; Rapp 1993; Spicer 1977), we expected that this study would produce similar results. This proved not to be the case. No significant differences by ethnicity or social class were found in the women's attitudes toward prenatal care or their prenatal care practices.

Lazarus reported similar results from her research on Puerto Rican and European American obstetrical patients at a U.S. inner-city hospital: "The Puerto Rican and white women held similar beliefs about pregnancy and birth, managed these events in a similar fashion, and behaved similarly in their clinical interactions, despite the fact that the Puerto Rican women maintained a strong, separate cultural identity" (1988:36). Lazarus finds that the clinic organization and the exigencies of medical resident training had a more powerful impact on doctor-patient interaction and women's prenatal care practices than cultural differences among patients. The following discussion will therefore combine the results from subgroups of informants, with the exception of a small number of recent immigrant Mexicans ($n = 18$) who drew on considerations not taken into account by the other groups when deciding whether or not to accept clinicians' biomedical prenatal recommendations.

The women interviewed ranged in age from 18 to 35 years (mean age = 26.8, $s.d. = 4.5$) and had 0–6 children (mean = 1.3, $s.d. = 1.1$) and 0–9 previous pregnancies (mean = 2.1, $s.d. = 1.68$). One-third had had at least one induced abortion (mean = .45, $s.d. = .74$, range 0–3). Sixty-three percent were European American,² 25 percent were Mexican American (i.e., born in the United States to parents of Mexican ancestry or immigrated to the United States by the age of 10), and 12 percent were Mexican immigrants (i.e., immigrated to the United States after the age of ten). Median household income was \$30,000–\$35,000, although 22 percent had incomes below \$15,000 and 22 percent had incomes over \$50,000. Most had completed high school, although 25 percent had not; only 12 percent had earned a bachelor's degree or more.

The Culture of Prenatal Care in the United States

In the United States today prenatal care is fundamentally about getting and giving information.³ Providers collect data on the state of pregnant women's bodies and on the condition of their developing fetuses. At the same time they want their clients to understand how and why their bodies are changing, in part because they expect this will make them more likely to follow providers' recommendations. In reality, much of prenatal care can be seen as a process of medical socialization, in which providers attempt to teach pregnant women their own interpretations of the signs and symptoms the women will experience as the pregnancy proceeds and the significance that should be attached to them.

Most women's goals when they sought prenatal care dovetailed with those of providers': women wanted to give providers access to their bodies for prenatal monitoring, and they wanted to learn about how their doctors thought they should care for themselves and act during pregnancy. Typical, then, was Ana Martínez's⁴ description of why she enrolled in prenatal care:

[B]ecause . . . [in] your first couple of months you don't know what's going on . . . getting your blood lab [*sic*], if you are diabetic [and] to check all the diseases the baby could carry. And well, there's so much information and pamphlets that they're willing to give. . . . [And also] if I'm feeling real weird, like I get a kick and it feels really warm after the kick but only in one spot . . . to me it's like is that normal?

Implicit in this comment is also the fact that Ana saw her prenatal care as providing important emotional reassurance. Others were more direct in this regard. Said Denise Roberts, "It comforts me to be told this is how you're going to be feeling." And Helena Suárez explained, "The nurses know me when I walk in. They say, 'Oh, you look really great.' . . . It gives you that extra boost." Other women saw the emotional support prenatal care can provide more indirectly. Mary Zim, for instance, valued the fact that her providers helped her set limits in her otherwise busy life. She commented, "It [prenatal care] helps me feel good about saying I'm not doing this, that I don't need to be Superwoman all the time." Similarly, Ruthann Almond focused on the prospects for long-term reassurance that prenatal care offered. She said she was scrupulous about keeping all her prenatal appointments because "I don't want to think back and say, oh man, I had this condition, they could have done something about it, and I didn't go to my appointments." Other women liked prenatal care because the technologies used, like the fetal stethoscope and ultrasonography, made them feel closer to the fetus. As Stefany Jones explained, "[A]fter I heard the baby's heartbeat, it was different than before. . . . [I]t [prenatal care] just makes it more real."

But for many pregnant women the informational function of prenatal care is foremost, partly because they see being informed as primary to the responsibilities conferred by pregnancy. Popular literature and the media insist that pregnant women must attend to their bodies to a degree that others need not. Some women therefore are disappointed when they receive what they consider scant biomedical information. Said Jenifer Lowe, "When I had my last child . . . I was kind of surprised because I had a girlfriend who was pregnant at the same time and she said, 'I don't do this and I don't do that,' and I thought, he didn't tell *me* all that

stuff.” Alicia Aguilar similarly remarked, “We [society] know more but I don’t think the information is readily available. . . . I want to hear specifically why am I feeling like that. [If the doctor says] Oh, that’s normal. OK, why?” Our informants, then, expect their prenatal providers to offer accurate interpretations of their sensations and bodily experiences, while simultaneously providing reassurance that their pregnancies are proceeding as expected.

Despite this emphasis on information, however, the pregnant women in our study did not uncritically accept biomedical authority within the domain of prenatal care. One reason was the frequency with which they discovered that the biomedical information they or others had been given was wrong. Rebeca Cardinas explained, “The first time they thought I was going to have twins but that turned out to be wrong. This time, they felt my uterus was too small for where I said I was in the pregnancy. But I was right.” Said Mara Green, pregnant with her fourth child, “After my first, they said they were sure I would never have children again.” Similarly, speaking of her child born with a cleft palate, Jeanie Puck explained, “A couple of the doctors said he’s going to be a very underweight child. . . . They said that for the first two years, he won’t be more than ten pounds. And he’s already eight-and-a-half pounds and he’ll be four months old tomorrow! So that’s totally blown out what those doctors said already.”

Others voiced skepticism about the accuracy of information derived from prenatal testing. Elaine Irwin remarked, “I went to my first prenatal thing and they showed the films about the AFP [alpha fetoprotein] test . . . and . . . this lady next to me said, ‘I took all those tests and nothing told me [that my child would be born with Down’s syndrome].’” Marta Jimenez, speaking of friends, reported the opposite experience: “They were told the baby would definitely be born mentally retarded. They prepared themselves and all this other kinds of stuff and she [the baby] was fine.”

Women were also skeptical about the validity of biomedical information because of the speed with which biomedical advice to pregnant women has changed. Although most said they believed the advice they themselves were receiving was more correct than what their mothers had been told, the fact that it was often so different gave some of them pause. Similarly, some drew on their own or others’ personal experiences to question current biomedical wisdom regarding the negative consequences of alcohol and tobacco use during pregnancy. Finally, many multiparous women had received prenatal care from a different physician for each pregnancy and received conflicting advice from each, providing further evidence that they could not simply accept what doctors said. Many indicated that they were inclined to accept physicians’ advice as authoritative, but they demonstrated a degree of ambivalence about doing so.

Pregnant Women’s Responses to Biomedical Advice

For the purposes of this analysis, biomedical authoritative knowledge is defined as recommendations intended to safeguard the health of a pregnant woman or her fetus. It includes information from women’s own prenatal care providers, from other biomedical authorities, and from books and other written materials. Advice from lay sources not purportedly backed by biomedical authority will not be considered here.

The women in our study were met with a vast and often confusing array of information, offered either in generic form or as individually tailored recommendations. The HMO offers all pregnant clients a three-hour prenatal education class. The class reviews the physiological and psychological changes associated with pregnancy, describes the nature of the prenatal care the HMO will provide, and gives the HMO's recommendations for diet, exercise, weight gain, and rest. Our informants also had access to a wide array of written materials, both at the HMO and elsewhere. These included a 96-page booklet published by the HMO entitled "Preparing for a HEALTHY BABY," as well as books, especially the very popular *What To Expect When You're Expecting* (Eisenberg et al. 1991), subscription magazines, and free "throw away" magazines that are essentially advertising supplements. Of all written materials, these last were probably most widely read by our informants. The HMO also provided women with individual consultations with a dietitian or one or more biomedical specialists should they be medically indicated.

Having so much information available, however, was not necessarily helpful or reassuring. The following conversation offers insight into the range of considerations Kristin Robinson took into account when seeking to evaluate and make use of specific prenatal recommendations.

KR: At the very beginning I didn't know I could take Tylenol, I was thinking Tylenol and aspirin was [sic] the same thing. . . . So I had a headache . . . [and] I finally called this hot line and they said, "Do you have any Tylenol?" and I'm thinking what an idiot, I've had this headache four hours. . . .

Q: Did you have any qualms about taking Tylenol after that?

KR: Not until I went to my chiropractor . . . because I was saying if I couldn't take Tylenol I would be going crazy because my back was hurting me more with the pregnancy and he said (he doesn't even have any kids, he's just a chiropractor), "Well, you know all those things are going into the little baby and that might not be a good idea." I remember leaving there thinking I'm just not going to [take it], suffer a little more before I take it, even though I would try not to anyway.

Q: Sounds like you were pretty influenced by authority figures.

KR: Yeah, I mean it makes sense. I also had a sister-in-law whose doctor told her Nutrasweet was really bad and my other sister-in-law in the same room said, "Oh, just don't listen to her because my doctor said that and from what I read I thought that was just hogwash." [And] I thought, Nutrasweet is in *practically everything* and I've always been kind of a weight watcher so I would use it . . . I wouldn't use Sweet'n'Low because I've heard that's not good.

Q: So during your pregnancy what did you do?

KR: At the beginning I would just use sugar and then I think I read that Nutrasweet was OK. And then [when] my sister-in-law said "my doctor said that it's really not good" it was almost after the fact because I had already used some and I thought, I'm not going to panic. I've read that it's OK and heard it's OK.

Q: So you're more likely to trust something you've read than something you hear?

KR: Yeah, even if it was her doctor, but still.

We see Kristin confronting a lack of consensus among clinicians and confusion as to how to proceed. Kristin indicates that she misunderstood advice she had initially been given on over-the-counter painkillers and incorrectly assumed that both aspirin and Tylenol were prohibited. A severe headache led her to seek new advice from a medical hotline. She was relieved to learn that they considered Tylenol safe to use during pregnancy. She accepted this as authoritative information until a practitioner she consulted for a different problem questioned her judgment. Although she casts doubt on his authority (“he doesn’t even have any kids, he’s just a chiropractor”), in the end she accepts it over the medical hotline because his explanation “makes sense.”

Kristin finds the situation with artificial sweeteners similarly confusing. Here she must weigh information gleaned from her own reading and what pregnant relatives reported having been told by their physicians. In the end she accepts what she has read over what her relatives report, in part because she has already engaged in the purportedly damaging behavior (“it was almost after the fact because I had already used some and I thought . . . I’ve read that it’s OK and heard it’s OK”). She supports her position with a relative, who also questions biomedical authority on this subject (“just don’t listen to her because my doctor said that and from what I read I thought that was just hogwash,” Kristin indicates the relative replied). In neither instance does Kristin indicate that she asked her prenatal care providers for advice or clarification.

This example illuminates some of the dynamics called into play when pregnant women evaluate information from diverse sources and incorporate some of it into their own self-care. We see such evaluation as an ongoing process, not a discrete event. Below we offer an analysis of the factors that differentiated biomedical prenatal recommendations our informants incorporated from those they did not. For the most part women accepted recommendations that were confirmed by embodied knowledge and experience, and rejected those that ran counter to their preexisting beliefs about how to care for themselves during pregnancy and that could not easily be incorporated into their everyday lives.

Biomedical Recommendations Women Incorporated

Embodied knowledge guided many women’s decisions about whether or not they should incorporate specific prenatal recommendations. Women who had already borne children commonly drew on their embodied experiences in this regard. Some, for example, incorporated advice that promised to resolve physiological problems they experienced in previous pregnancies. Lorraine Tann was told to limit physical activities during her current pregnancy because she experienced premature labor the first time. She said she did so because “I notice I have more contractions when I do too much.” Others reported being particularly conscientious about following dietary recommendations because they gained excessive weight during a previous pregnancy and suffered associated physical problems as a result.

As women’s pregnancies passed through different stages, some clinical advice that had initially been rejected because it seemed to have no value was ultimately accepted. Embodied knowledge confirmed its value. Donna Kadence explained why she reduced her use of caffeine: “I didn’t at first. . . . Then I started feeling it

moving [after drinking coffee]. It made me go, there's a person kickin' on me, saying 'No, no don't do that!' " Similarly, Carol Hughes ultimately agreed with her doctor to stop bike riding: "When I was almost four months I took a good eight-mile bike ride and two days later I had a pain on my side that kept me doubled over all day long. So I've decided to keep my bike riding to not at all."

These examples are important in revealing some of the processes at play when pregnant women eventually incorporated biomedical recommendations that they had initially rejected. Early in pregnancy they are told a great many things about pregnancy management, some of which seem implausible or unnecessary at the time. But that information may subsequently be drawn upon to help women interpret unfamiliar experiences and sensations. Whether or not Carol's bike ride actually caused the pain she felt two days later, the fact remains that those events became linked in her mind because of what her doctor had said. Biomedical advice provided many women with a framework for interpreting new, unexpected, and sometimes frightening somatic variation.

Our informants also incorporated biomedical advice that had clear and immediate physiological results. Tricia Moss, for instance, reported walking more during her pregnancy as her doctor had advised. When asked why she was doing so, she replied, "To tell you the truth I don't know. It just makes me feel better." Others eliminated or limited foods they ordinarily loved because they caused gastric distress. Women who physicians felt might be miscarrying because they were experiencing vaginal bleeding were told to stay off their feet for a specific period of time ranging from a few days to several months. Many, like Elena Arroyo, reported that the problem was resolved when they complied: "As soon as I did what they told me, that really, really helped a lot."

Some prenatal dietary recommendations were incorporated because they fit women's own preexisting physiological inclinations. Jeanette Simons, for example, found it easy to follow biomedical prohibitions against alcohol use in pregnancy: "Normally I don't drink at all when I'm pregnant, but I don't have any desire to either." Cindi Baker reported a similar experience with coffee: "I just didn't like drinking it anymore."

But embodied knowledge was not the only criterion used for evaluating biomedical knowledge. Physicians' recommendations that were consistent with women's own prior understandings about how they should care for themselves during pregnancy were incorporated as well. Priscilla Abbott, for instance, willingly drinks more milk whenever she is pregnant. "I think I need the calcium," she explained. Jenny LaValle drastically cut back on sugar because, she said, "I know sugar can make children hyper, so I'm sure a developing baby can get real hyper too." Like several others, Anne Walse stopped strenuous exercise: "Water skiing I love to do, and jet skiing, but I won't because if I fall off and something happens to me, it also happens to the baby."

Some of the advice adopted by Mexican immigrant informants was incorporated because it was congruent with understandings derived from Mexican ethnomedical systems (Browner 1985). Several ate fewer hot chili peppers, for instance, because they feared their babies would be born red, irritated, and with their faces covered with pimples. Others stopped lifting heavy objects for fear the baby would be born with a hernia. Still others walked more because they feared

inactivity would cause the fetus or the placenta to “stick” to their backs, causing protracted labor.

Finally, women, regardless of immigration status, accepted prenatal biomedical recommendations that they could easily incorporate into their ongoing daily lives. For example, Bonnie Brown, who was considered dangerously overweight by her doctors, said, “I don’t limit my intake of sugar or fats like I know I should. [But] I do take a prenatal supplement. I think it would be a good thing if I would change [my diet] but it would just be an overall lifestyle change which up to now I’ve been undisciplined to make.”

In sum, embodied knowledge provided a standard against which biomedical prenatal recommendations were assessed. Those confirmed physiologically were adopted. In addition, advice that was consistent with ways women believed they should care for themselves during pregnancy and advice that they experienced as benign were incorporated as well.

Biomedical Recommendations Women Did Not Incorporate

Many women also drew on their own embodied experience when they chose not to incorporate specific prenatal biomedical recommendations. Those who had already borne healthy children were especially likely to act independently, referring back to a prior pregnancy or delivery when giving the rationale for rejecting a clinical recommendation. Kitty Carson, for instance, is one of many informants who was unwilling to give up smoking during pregnancy despite being urged to do so. “I smoked during my first pregnancy and I had a nine-pound baby,” she explained, “[and the baby] had a 9 on the APGAR,⁵ which the highest is 10. So for me it was like OK.” What Kitty seemed to imply is that biomedicine’s universalistic claim that smoking during pregnancy is harmful to the fetus simply did not conform to her own embodied experience.

In this regard it is noteworthy that several who scrupulously followed prenatal recommendations in earlier pregnancies and bore healthy children said they were less concerned about doing so during their current pregnancy. As Rachel White explained, “After my first child what came out was, I was born to have babies . . . so I’m not as rigid as I was before.” In cases such as these, women seem to be crediting themselves or their embodied knowledge rather than the biomedical recommendations they so conscientiously observed with the successful outcome.

Biomedical advice that did not bring about the promised physiological changes was also generally rejected. Rosa Rodriguez stated, “I was told to do Kegel exercises but I don’t really get around to them because . . . you do them but you don’t find no results.” Karen Brooks decided not to follow her physician’s recommendation that she exercise. She remarked, “The last time I was pregnant, I was told that if I exercise a lot that my labor would be easy. So I was still in labor for 17 hours. This time I’m not doing anything. Who knows, maybe this baby will just pop out.” In such situations women felt their own embodied experience overrode the promise of medical science.

Biomedical advice that was not consistent with women’s own ideas about how to best care for themselves during pregnancy was not incorporated either. Kristin Robinson, for example, explained why she decided not to take prenatal vitamins: “They really say those vitamins are good, but I don’t know. I eat pretty good

anyways so. . .” Eva Capitans was one of many who did not strictly follow the recommended prenatal dietary regimen because in her view it was excessive. She remarked, “The doctors gave me nutritional papers saying you should be eating so much proteins and poultry, milk and so forth. I don’t go by it specifically. . . . I don’t like step-by-step, four servings of this, I just eat my regular and know somehow or other.” Similarly, Annette Ascew understood that alcohol use was strongly discouraged during pregnancy. Nevertheless, she said, “if I want [a beer] I’m going to have one because I think it’s better to make me happy instead of being stressed. That’s more important to me than putting a little alcohol in my body.”

Most important, perhaps, women turned down biomedical advice that could not be readily incorporated into the existing contexts of their on-going daily lives. For instance, Lucy Kammer was 33 weeks pregnant when she began experiencing frequent premature contractions. “The doctors said lay in bed until you have this baby,” she said, “And that would be like two months. How am I supposed to lay in bed with three kids?” During her first trimester of pregnancy Donna Ooms had morning sickness so severe that it interfered with her ability to work. She explained, “I was downing like a bottle of [antinausea medication] a day just to be able to go to work. They said taking doses that high wasn’t cool . . . but I didn’t have a whole lot of choice.” The women’s frustrations stemmed from the fact that they felt that biomedical advice was often offered without sufficient regard for the realities of their lives.

Kitty Carson put these other women’s views into perspective when she described how she herself incorporated dietary recommendations and other prenatal biomedical advice: “I tend to think you have to take all the medical things and relate ’em to your family too. The first one I cooked a lot of big meals. Now I have two kids, I don’t have the time. You need time just to sit back and kick up your feet up than to worry about having these big family-style dinners every night.” Aware, then, that it would be unrealistic and impractical to adopt all prenatal recommendations, Kitty selected those she could incorporate into her life with the least difficulty.

In this regard it is clear that our informants did not incorporate biomedical recommendations they perceived to be “too costly.” Bonnie Brown, for instance, explained why she did not change her diet during pregnancy: “Everything says that you should limit your fats. But I love to cook and I just cook the way I’ve always known how.” Carmen Acevedo found it difficult to cut back on physical activities as she was advised: “I like to pick up things and be cleaning [which] is bad for me so sometimes I’ll hide and I’ll do it.” With a history of two prior miscarriages, Chris Knight feared she might be exercising too much because she was experiencing frequent strong premature contractions. Yet she could not bring herself to stop: “I just want to try to not be so overweight after the baby is born.” She therefore compromised, modifying the frequent aerobic workouts she would not abandon according to how her body responded at any particular point in time. “Sometimes I just march in place when I have contractions,” she said.

Other women also forged compromises they could live with. They rejected biomedical advice that they found burdensome, rationalizing their decisions with the belief that their overall prenatal behavior was generally in conformity with biomedical expectations. Although Bonnie Brown, for example, was unwilling to

cut back on sugar and fats, she readily gave up drinking in the belief that alcohol was potentially more damaging to fetal development than sugar or fats. Similarly, Jackie Prince described her pregnancy diet: "More milk, more vegetables. You're not going to get me off my potato chips. Even though they say it's not good for you. But I don't drink or smoke or anything, so . . ." Dina Warren's compromise concerned exercise: "My doctor advised me not to go to the gym . . . but I ride my bike which she doesn't like either, but, sorry, I have been riding my bike."

Finally, some immigrant Mexican women drew on "social" considerations when they turned down biomedical advice. Although Nancy Ramos, for instance, had been taught in prenatal class to avoid smoky areas, she said she had not been entirely successful. "Sometimes we have visitors who stay with us and they're smokers. But I simply can't do anything about that," she explained. In a similar vein, although Celia Zarate was told by her doctor to strictly control her diet, she found that social considerations sometimes made it difficult to comply. In one instance, after accepting a dinner invitation, she wanted to call her hostess to inquire about what would be served. Her husband flatly rejected her plan, saying, "We can't ask them what they're going to serve when they invite us."

One final example of how social considerations influenced Mexican women's prenatal behavior may make the point best. Susana Ortiz was seven months' pregnant when her father suddenly died in Mexico. Susana immediately began to prepare to return home for the funeral. A friend who thought it might be dangerous for Susana to fly suggested that she check with her physician. The doctor said that she absolutely should not fly and discouraged her from even making the trip by car. Susana flew home anyway. Afterward she explained, "Imagine if I didn't go to the funeral. What would my people think? I'm the only daughter and the only one that lives here [in the United States] . . . I'm the oldest. My place was there." Interestingly, European American and Mexican American women never reported such "social" considerations as reasons for rejecting a biomedical recommendation.

In deciding what to regard as authoritative knowledge in prenatal care, women thus drew to some extent on embodied knowledge, although other considerations, especially preexisting beliefs about how they should best care for themselves during pregnancy, also played a part. But for many women a more important factor was the extent to which biomedical recommendations could be incorporated into the existing contexts of their daily lives.

Discussion

In this account we have focused on a wide range of prenatal recommendations, from those that might seem discretionary such as advice about exercise and diet to interventions of a more serious nature such as those indicated in the event of a threatened miscarriage. The data clearly show that this group of U.S. pregnant women does not consider prenatal recommendations to be authoritative simply because they are issued by physicians. The women in our study were no more likely to follow biomedical recommendations when they or their doctors regarded the problem as being medically serious than when it was regarded as benign. In this regard our informants are like other U.S. women and men who seldom follow biomedical advice uncritically (Chrisman and Kleinman 1983; Conrad 1985; Hunt et al. 1989; Hunt, Browner, and Jordan 1990; Stimson and Webb 1975). They are

reflective actors who continually evaluate the clinical recommendations they receive. The extent to which they acknowledge those recommendations to be authoritative is based on the bodily changes they are experiencing, their own prior history and knowledge, and the everyday life situations in which their illnesses are experienced and treatments employed.

In other words, patients are active interpreters of medical information. They pick and choose, using and discarding advice according to internal and external constraints and considerations. In the case of our pregnant informants, embodied knowledge and everyday life exigencies proved to be pivotal in their selective designation of certain biomedical knowledge as authoritative. The women challenged biomedical authority in prenatal care specifically when they saw it as based solely on clinician's judgments, and balanced these judgments against their own embodied knowledge and their ability to accommodate their lives to the recommendations being proposed.

Valuing information about prenatal care derived from embodied knowledge over that of biomedical knowledge contrasts with the attitudes and behavior that characterize most American women as they give birth. During labor American women are highly acquiescent to biomedical authority at the expense of embodied knowledge (Bromberg 1981; Davis-Floyd 1992; Jordan 1993[1978]; McClain 1990; Nelson 1983; Sargent and Stark 1987, 1989). The vast majority readily accede to the biomedical imperative that a range of clinical technologies, including fetal monitoring, episiotomy, and cesarean delivery, be employed. Although we did not collect data on this subject, we have no reason to expect that our informants felt or acted differently than most other American women during childbirth.

American women acquiesce to the biomedical assumption that technology is essential for a successful delivery for several reasons. Many believe it is safer for them and their newborns. Others feel it offers them more "control." On a deeper level, the attraction seems to stem from pregnant women's lack of confidence in their own bodies and their ability to successfully give birth on their own. Their unwillingness to trust embodied knowledge during childbirth contrasts with the importance with which it is treated by the women in this study.

What in the minds of the women in our sample, and quite likely the minds of many other American women, differentiates prenatal care from childbirth? Why does their faith in embodied knowledge during pregnancy become subordinated to biomedical knowledge when it comes time to give birth? Part of the answer clearly lies in the differential role of biomedical technology in the two domains. While childbirth in America is now a primarily technological endeavor, this is not yet the case for prenatal care.

Studies on the growing importance of prenatal diagnosis provide insight into this distinction (Browner and Press 1995; Lippman 1989; Petchesky 1987; Rapp 1987, 1988, 1990; Rothman 1986; see also Georges, this issue). They show that few women refuse the technologies of prenatal testing such as ultrasound or other diagnostic procedures when they are recommended by health care providers, even though the women themselves may see no particular use for the information such testing can provide. Such technologies, which are culturally regarded as being accurate and incontrovertible, help make the pregnancy more real (Georges, this

issue) and allow women to feel that they are doing all they should to assure the fetus's health.

Like other Americans, pregnant women are deeply ambivalent about the value of technology (Habermas 1972; Knorr-Cetina and Mulkay 1983; Ziman 1976). Yet few reject it out of hand, for scientific information occupies a uniquely privileged spot. Information produced by science marshals inherent respect, even when it may have no apparent use. We see this clearly in prenatal diagnostic testing: physicians' recommendations usually carry the force of command, and even suggestions by nurses and other medical staff have great power. For example, in many parts of the United States physicians routinely recommend alpha fetoprotein (AFP) testing for neural tube defects and Down's syndrome. There are few effective treatments for either of these conditions and no hope of cure. Aborting the affected pregnancy is the only means of prevention. In a study of women's responses to the routine offer of AFP testing (Browner and Press 1995), we found that very few rejected the test, even though most said they would not abort the pregnancy in the event they tested positive.

Once a prenatal diagnostic technology becomes widely available it cannot be refused neutrally because refusal can be construed as a lack of responsibility on the part of the pregnant woman. Adherence to routines of scientifically based prenatal care, like AFP testing and ultrasound scans, is women's only culturally approved means of reassuring themselves, and others, that they are doing "all that can be done" to ensure a healthy pregnancy. This contrasts sharply with their attitudes about other prenatal recommendations, which, as we saw, were incorporated only if they met the various criteria for usefulness that the women applied. Thus authoritative knowledge in the prenatal domain is not a single entity but rather is composed of constituent parts (Sargent and Bascope, this issue); women often rely more heavily on their own embodied knowledge than on clinicians' opinions; in contrast, they acquiesce to biomedical authority when it is backed by the power of technology.

We have shown in this article that women often take prenatal advice based on clinicians' judgment with the proverbial grain of salt, evaluating its feasibility and checking it against their own bodily knowledge. But it is also the case that women increasingly defer to biomedical authority in those domains of prenatal care in which clinical technologies predominate. The invention and elaboration of such technologies are integral to biomedicine's hegemonic efforts. These processes can be examined in the cultural domain of prenatal care, where laywomen still feel free to choose among competing views of what is best for them during pregnancy. But as the role of clinical technology grows, pregnant women can be expected to increasingly defer to biomedical authority. In so doing they help create the consensus that biomedicine holds authoritative knowledge in the domain of prenatal care.

NOTES

Acknowledgments. Research was supported in part by NICHD grant HD11944 and grants from UCLA's Chicano Studies Research Center and Academic Senate. Laura Fernea, Ellen Lodge, Kathy Kubarski, Susan Wilhite, Nancy Warwick, and Tina Zenzola helped conduct the interviews. Beatiz Solis and Mabel Preloran provided countless forms of invaluable assistance during the periods of data collection and data analysis. We thank all

of them for their flexibility, enthusiasm, and help. We also thank the administration and staff of the HMO for facilitating the project during the long course of data collection, and our informants for their willingness to communicate their experiences. Linda Hunt, Ann V. Millard, Mabel Preloran, Arthur J. Rubel, and Nancy Warwick made very helpful comments on earlier drafts of the article. Robbie Davis-Floyd was a superb editor.

Correspondence may be addressed to the first author at the Department of Psychiatry and Biobehavioral Sciences, UCLA, Los Angeles, CA 90095-1795.

1. Copies of interview guides are available from the first author.
2. The European American sample was also stratified by religion (59% Catholic, 41% non-Catholic Christian) because of our interest in the role of religion and religiosity in pregnant women's decisions about prenatal diagnostic testing (see Press and Browner 1993).
3. Although studies consistently find that women who enroll in prenatal care have better birth outcomes than those who do not, the reasons why this is so remain unknown (Chalmers et al. 1989). The consensus among researchers at this time is that women who receive prenatal care may be less likely to use substances such as alcohol, tobacco, and narcotics, all of which can affect fetal health and development.
4. All informants' names are pseudonyms.
5. A system of scoring an infant's physical condition one minute after birth. The heart rate, respiration, muscle tone, color, and response to stimuli are scored 0, 1, or 2. The maximum total score for a normal baby is 10.

REFERENCES CITED

- Belenky, Mary Field, Blythe Clinchy, Nancy Goldberger, and Jill Tarule
1986 *Women's Ways of Knowing: The Development of Self, Voice, and Mind*. New York: Basic Books.
- Bostrom, Alan, and Bruce Stegner
1984 *Crunch Interactive Statistical Package (CRISP), Version 84.1*. San Francisco: Crunch Publishers.
- Bromberg, Joann
1981 *Having a Baby: A Story Essay*. In *Childbirth: Alternatives to Medical Control*. S. Romalis, ed. Pp. 33–62. Austin: University of Texas Press.
- Browner, C. H.
1980 *The Management of Early Pregnancy: Colombian Folk Concepts of Fertility Control*. *Social Science and Medicine* 14B:25–32.
1985 *Criteria for Selecting Herbal Remedies*. *Ethnology* 24:13–32.
1990 *Cultural Perspectives on Prenatal Care and Birth Outcomes in the Latino Community*. Paper presented at 61st Annual Meeting of the Southwestern Anthropological Association, Long Beach, CA.
- Browner, C. H., and Nancy Press
1995 *The Normalization of Prenatal Diagnostic Testing*. In *The Politics of Reproduction*. F. Ginsburg and R. Rapp, eds. Pp. 307–322. Berkeley: University of California Press.
- Chalmers, Iain, Murray Enkin, and Marc J. N. C. Keirse, eds.
1989 *Effective Care in Pregnancy and Childbirth, Vol. 1. Pregnancy*. Oxford: Oxford University Press.
- Chrisman, Noel, and Arthur Kleinman
1983 *Popular Health Care, Social Networks and Cultural Meanings: The Orientation of Medical Anthropology*. In *Handbook of Health, Health Care and Health Professions*. D. Mechanic, ed. Pp. 569–590. New York: Free Press.

- Conrad, Peter
 1985 The Meaning of Medication: Another Look at Compliance. *Social Science and Medicine* 20:29–37.
- Davis-Floyd, Robbie E.
 1992 *Birth as an American Rite of Passage*. Berkeley: University of California Press.
- Eisenberg, Arlene, Heidi E. Murkoff, and Sandee E. Hathaway
 1991 *What To Expect When You're Expecting*. New York: Workman Publishing.
- Habermas, Jürgen
 1972 *Knowledge and Human Interests*. London: Heinemann.
- Hubbard, Ruth
 1995 *Profitable Promises. Essays on Women, Science and Health*. Munroe, ME: Common Courage Press.
- Hunt, Linda M., C. H. Browner, and Brigitte Jordan
 1990 Hypoglycemia: Portrait of an Illness Construct in Everyday Use. *Medical Anthropology Quarterly* 4(2):191–210.
- Hunt, Linda M., Brigitte Jordan, Susan Irwin, and C. H. Browner
 1989 Compliance and the Patient's Perspective: Controlling Symptoms in Everyday Life. *Culture, Medicine, and Psychiatry* 13:315–334.
- Jordan, Brigitte
 1977 The Self-Diagnosis of Early Pregnancy: An Investigation of Lay Competence. *Medical Anthropology* 1:1–38.
 1993[1978] *Birth in Four Cultures: A Cross-Cultural Investigation of Childbirth in Yucatan, Holland, Sweden and the United States*. 4th ed. Prospect Heights, IL: Waveland Press.
- Kay, Margarita Artschwager
 1980 Mexican, Mexican American, and Chicana Childbirth. *In Twice a Minority: Mexican American Women*. M. B. Melville, ed. Pp. 52–65. St. Louis: C. V. Mosby.
- Knorr-Cetina, Karin D., and Michael Mulkay, eds.
 1983 *Science Observed: Perspectives on the Social Study of Science*. London: Sage.
- Lazarus, Ellen
 1988 Theoretical Considerations for the Study of the Doctor-Patient Relationship: Implications of a Perinatal Study. *Medical Anthropology Quarterly* 2(1):34–58.
 1994 What Do Women Want? Issues of Choice, Control, and Class in Pregnancy and Childbirth. *Medical Anthropology Quarterly* 8(1):25–46.
- Lippman, Abby
 1989 Prenatal Diagnosis: Reproductive Choice? Reproductive Control? *In The Future of Human Reproduction*. C. Overall, ed. Pp. 182–194. Toronto: Women's Press.
- McClain, Carol Shepherd
 1990 The Making of a Medical Tradition: Vaginal Birth after Cesarean. *Social Science and Medicine* 31:203–210.
- Martin, Emily
 1987 *The Woman in the Body*. New York: Beacon.
- Nelson, Margaret K.
 1983 Working-Class Women, Middle-Class Women, and Models of Childbirth. *Social Problems* 30:284–297.
- Petchesky, Rosalind Pollack
 1987 Foetal Images: The Power of Visual Culture in the Politics of Reproduction. *In Reproductive Technologies: Gender, Motherhood and Medicine*. M. Stanworth, ed. Pp. 57–80. Minneapolis: University of Minnesota Press.

- Press, Nancy, and C. H. Browner
 1993 "Collective Fictions": Similarities in Reasons for Accepting Maternal Serum Alpha-Fetoprotein Screening among Women of Diverse Ethnic and Social Class Backgrounds. *Fetal Diagnosis and Therapy* 8 (supp. 1):97-106.
- Rapp, Rayna
 1987 Moral Pioneers: Women, Men and Fetuses on a Frontier of Reproductive Technology. *Women & Health* 13:101-116.
 1988 The Power of "Positive" Diagnosis: Medical and Maternal Discourses on Amniocentesis. *In* *Childbirth in America. Anthropological Perspectives*. K. L. Michaelson, ed. Pp. 103-116. South Hadley, MA: Bergin and Garvey.
 1990 Constructing Amniocentesis: Maternal and Medical Discourses. *In* *Uncertain Terms: Negotiating Gender in America*. F. Ginsburg and A. L. Tsing, eds. Pp. 28-42. Boston: Beacon Press.
 1993 Amniocentesis in Sociocultural Perspective. *Journal of Genetic Counseling* 2:183-195.
- Reid, Margaret, and Jo Garcia
 1989 Women's Views of Care during Pregnancy and Childbirth. *In* *Effective Care in Pregnancy and Childbirth*, Vol. 1. Pregnancy, parts 1-5. I. Chalmers, M. Enkin, and M. J. N. C. Keirse, eds. Pp. 131-142. Oxford: Oxford University Press.
- Rothman, Barbara Katz
 1986 *The Tentative Pregnancy. Prenatal Diagnosis and the Future of Motherhood*. New York: Penguin Books.
- Sargent, Carolyn, and Nancy Stark
 1987 Surgical Birth: Interpretations of Cesarean Delivery among Private Hospital Patients and Nursing Staff. *Social Science and Medicine* 25:1269-1276.
 1989 Childbirth Education and Childbirth Models: Parental Perspectives on Control, Anesthesia, and Technological Intervention in the Birth Process. *Medical Anthropology Quarterly* 3(1):36-51.
- Seidel, John V.
 1988 *The Ethnograph*. Version 3.0. Littleton, CO: Qualis Research Associates.
- Spicer, Edward, ed.
 1977 *Ethnic Medicine in the Southwest*. Tucson: University of Arizona Press.
- Stimson, Gerry, and Barbara Webb
 1975 *Going To See the Doctor: Consultation Process in General Medical Practice*. London: Routledge and Kegan Paul.
- Terry, Jennifer
 1989 The Body Invaded: Medical Surveillance of Women as Reproducers. *Socialist Review* 19:13-43.
- Thompson, Joyce E., Linda V. Walsh, and Irwin R. Merkatz, eds.
 1990 *New Perspectives on Prenatal Care*. New York: Elsevier.
- Ziman, John
 1976 *The Force of Knowledge: The Scientific Dimension of Society*. Cambridge: Cambridge University Press.