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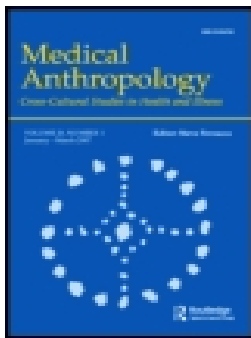
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Purity and Passion: Risk and Morality in Latina Immigrants' and Physicians' Beliefs About Cervical Cancer

Rebecca G. Martinez, Leo R. Chavez
and F. Allan Hubbell

This paper examines how physicians' beliefs about risk factors for cervical cancer compare with Mexican and Salvadoran immigrant women's views (hereafter Latina immigrants). Between August 15, 1991 and August 15, 1992, we conducted ethnographic interviews with 39 Mexican immigrant women, 28 Salvadoran immigrant women, and 30 physicians in northern Orange County, California. Physicians and Latina immigrants converge on their beliefs that sexual behavior is a predominant risk factor for cervical cancer. They diverge, however, on their reasons. Latina immigrants' perceptions of health risks are embedded in a larger set of cultural values centering around gender relations, sexuality, and morality. Latina immigrants also emphasized men's behavior as risk factors. Physicians' views, on the other hand, are largely based on the epidemiology of cervical cancer risk factors. They emphasized beginning sexual relations at an early age, multiple sexual partners, and infection with sexually transmitted viruses. Some physicians, however, displayed moral interpretations of the sex-based risk factors for cervical cancer through the use of the culturally-loaded term "promiscuous" in place of "multiple sexual partners," through specific references to morality, and through characterizations of women at risk for cervical cancer. Both the physicians and the Latina immigrants in our study paid considerably less attention to socioeconomic factors. Our results have important implications for physicians who provide health care for Latina immigrants. Physicians should be clear to point out that women need not be "promiscuous" to get cervical cancer.

Key Words: Mexican immigrants and cancer beliefs; Salvadoran immigrants and cancer beliefs; cultural beliefs and cervical cancer

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"Cultural theory brings us somewhat nearer to understanding risk perception... Instead of isolating risk as a technical problem we should formulate it so as to include, however crudely, its moral and political implications."

Mary Douglas 1992: 51

INTRODUCTION

Anthropology's concern with the human body as a cultural construct has a long history. What is new among contemporary theorists is the view that the body is a politicized terrain where power is exercised, contested, and resisted (Ryan and Gordon 1994; Lock and Lindenbaum 1993; Arnold 1993; Turner 1992; Balshem 1991; Vaughn 1991; Martin 1987; Turner 1987; Rothman 1984; Irwin and Jordan 1987; Ehrenreich and English 1978). Much of the anthropological research along these lines has been influenced by Michel Foucault's (1979, 1990) work on the relationship between power and sexuality. Although relatively vague and abstract, such notions concerning power and the body become concretized in the domain of disease and medical discourse. In particular, Douglas (1992) has recently pointed to the domain of health "risks" as an area in need of problematizing within an anthropological framework. She argues that risk has been the almost exclusive domain of epidemiological investigation. Douglas focuses on "lay" perceptions of risk in contrast to biomedical risk constructs. Other anthropologists have become increasingly concerned with the differences between biomedical and lay discourses of risk, addressing the cultural construction of various languages of risk: epidemiological, clinical, and lay (Frankenberg, 1993; Kaufert and O'Neil, 1993; Gifford, 1986).

Gifford (1986:215) has focused on the difference between epidemiological and lay dimensions of risk: "The assessment and evaluation of risk with epidemiology is an objective, technical and scientific process but for the lay person it is a subjective, lived experience. Lay assessment and evaluation of risk is a social process, not a scientific, technical one" (Gifford 1986:215). For Gifford, clinical medicine bridges these two dimensions. She (1986:214) argues that within clinical and lay contexts, "it is more appropriate to speak of a 'language of risk' in that the term is used to convey a constellation of meanings some of which are intended and some of which remain largely unconscious."

Morality and Disease

With the current emphasis on scientific methods, medical researchers and practitioners consciously shy away from issues of morality, focusing instead on the biological functioning of the body. In the not too distant past, however, medicine's relationship to social morals was more apparent (Sturma 1988; Foucault 1990). As Turner (1984:264) has noted, "health depended on morality because improper lifestyles constituted the root of personal illness and the immorality of the individual was a product of social disorder." As a consequence, the explicit and implicit prescriptions for health were based on a moral lifestyle.

In the contemporary era, medical discourse has emphasized objectivity and the scientific method. However, the actual practice of medicine combines the science of medicine with the "art" of medicine, producing a biomedical system that is actually diverse in approach, style, and varying degrees of reliance on clinical experience versus scientifically proven knowledge (McMullin, Chavez, and Hubbell 1995; Haraway 1993; DiGiacomo 1992). Moreover, research has increasingly found that biomedicine is part of the cultural system within which it is embedded (Good and Good 1993; Hunter 1991; Amarasingham-Rhodes 1991; Kuipers 1989; Lock and Gordon 1988; Wright 1988; Stein 1988). Biomedicine, as Gordon (1988:19) has noted, "draws upon and projects ... understandings of *personhood, society, morality, and religion* (what is sacred and profane)."

Issues of morality are particularly apparent when diseases are sexually transmitted. Labeling an illness a "sexually transmitted disease" (STD) constructs a set of understandings about both the disease and the behaviors ascribed to the disease. Medical discourse has increasingly incorporated cervical cancer into the category STD, placing it alongside such stigmatized illnesses as gonorrhea and syphilis (Herrero et al. 1990). As an STD, cervical cancer is marked in a different way and carries an entirely different set of explanations and meanings than it had previously, when it was simply "a woman's disease."

Turner (1984:220) has commented on this relationship between STDs and morality in the social context: "The obvious feature of sexually transmitted diseases is that, in most cases, they are associated with illicit or promiscuous sexuality. One implication of medical intervention is thus to make illicit sexuality free from the negative consequences of illness; medical intervention would remove the moral 'lesson' of disease." In practice, however, the separation of the moral lesson from the disease is difficult to accomplish.¹

From Epidemiological Risks to Moral Interpretations

Cervical cancer's characterization as a sexually transmitted disease is based on the epidemiological research on risk factors. Epidemiological studies have found that the risk of cervical cancer increases with some behavioral factors, the most prominent being early onset of sexual activity and multiple sexual partners (typically a categorical variable with a value of three or more partners or four or more partners being a risk). Smoking, diet, and socioeconomic status also play a role (Franco 1991; Parazzini et al. 1990; Devesa et al. 1989; Roth 1985). The consistent finding of an association of cervical cancer risk with sexual behavior suggests that a sexually-transmitted infectious organism may be the cause. The human papilloma viruses (HPVs) have been the most investigated suspects.

Recent research on Latinas,² or Hispanic women, however, has shown "the lack of strong associations between cervical dysplasia and ... early age at first intercourse and number of sex partners before the age of 20 years" (Becker et al. 1994:1186). The study did find, however, an association between a history of any sexually transmitted disease, low educational level and low income with cervical cancer. These findings suggest the importance of class as a cancer risk factor for

Latinas, underscoring the social and political dimensions of disease transmission (Tesh 1988:37).

Although the epidemiological research has provided strong evidence for the association of the above mentioned risk factors with cervical cancer, the etiology of cervical cancer is still not clear. Large epidemiological studies can find significant associations or correlations between variables, and yet such associations do not prove that a causal link exists between the variables. For example, the causal link between sexual activity, sexually transmitted viruses, and cervical cancer is still not established. In an extensive review of the literature, Franco (1991:98) found that, "Recent epidemiologic studies ... have failed to identify a correlation between sexual activity and HPV infection." Complicating the relationship of sexual activity to HPV is the finding that HPVs are ubiquitous in the pre-sexual female population, with contagion existing in some cases since childhood (Jenison et al. 1990). In addition, in most cases, HPVs cause harmless freckle warts in women, and only in a relatively few cases [compared to the women with HPVs present] is cervical cancer experienced. The most recent research indicates that certain "high risk" types of HPV may cause cervical cancer while "low risk" types do not (Cannistra and Niloff 1996). Other research indicates that it is not HPV alone, but HPV in combination with high levels of the hormone progesterone that leads to the progression from HPV infection to cervical cancer in some women (Fackelmann 1993). The one-two punch of HPV and progesterone complicates the etiologic model considerably, especially when it is recognized that progesterone is not sexually transmitted and that HPVs are present in pre-sexual females.

A blurring of the boundaries between risk factors for cervical cancer and moralizing about behavior correlated with the disease can occur. For example, consider the conclusionary statement from one recent study: "In the future, further declines [in cervical cancer rates] may be possible with reversal of the 'sexual revolution' ..." (Devesa et al. 1989:2189). Such a statement points to the reduction in risk, and therefore a possible reduction in cervical cancer, if changes in sexual attitudes and behavior occur in American society, an observation wholly consistent with the epidemiological literature. But such a statement could also be interpreted as advocating such a change. Even if unintentional, this could be viewed as a moral prescription, albeit one that is medically advised.

The presence of a moral prescription is perhaps clearer in the following excerpt from another article:

...it seems only reasonable that the medical community take up the banner of responsible sexuality, promoting abstinence or strict monogamy to help stop the spread of sexually transmitted diseases. This option appears to be the best medically indicated course of preventive action. In the long run, such advocacy will lead to better health and longer, happier lives for many patients. (Pastorek 1992)

Fisher (Fisher 1986:86) has argued that slippage into such moral prescriptions may occur in medical discourse concerning cervical cancer because "The doctor is voicing the dominant culture's values concerning women's sexuality, which we have all learned in that shared social world." What is of importance here is

that the explanation for why some women contract cervical cancer is open to various interpretations even among physicians, and some of these interpretations may connote moral assumptions about behavior (Jacobus, Keller, and Shuttleworth 1990).

Latina Immigrants, Sexuality and Morality

Immigrant women from Mexico or El Salvador (hereafter, we refer to Mexican and Salvadoran immigrant women together as Latina immigrants) bring with them a set of general cultural beliefs about gender relations, patriarchy, sexuality, and morality (Dorrington 1995; Hondagneu-Sotelo 1994). The construction of these beliefs can be traced to the conquest of native peoples by Spanish soldiers, the subsequent colonization of the Mexican and Central American region (which was one administrative area for most of the colonial period), and nearly 500 years of cultural developments (Helms 1982; Horowitz 1983; Mirandé and Enríquez 1979). Latina immigrants may adhere to these beliefs to varying degrees; for example, there are probably differences related to class background (Zinn 1995; Peña 1991). Moreover, specific gender roles are socially constructed within specific historical and local cultural milieus (Zambrana 1995; Zavella 1987). These general cultural beliefs are pervasive enough, however, that they provide an important framework for understanding Latina immigrants' specific beliefs about cervical cancer.

As Hondagneu-Sotelo (1994) has explained, Latino immigrants' traditional gender ideals define both masculine and feminine behavior. The ideology of machismo characterizes men as independent, sexually assertive and informally polygamous (Peña 1991; Paz 1961). The ideology for women prescribes dependence, subordination, selfless devotion to family and children, and sexual chastity. While undergoing change, traditional notions of patriarchy and family honor have traditionally hinged on unmarried women's virginity and on married women's fidelity to their husbands (Hondagneu-Sotelo 1994; LeVine 1993; Horowitz 1983). Women who flaunt their sexuality are dishonorable and exhibit disrespect for the social order as it is morally defined. As we shall observe below, transgressions of the moral order could have repercussions for a woman's health.

Research Questions

We are interested in examining how physicians' beliefs about risk factors for cervical cancer compare with Latina immigrant women's views. More specifically, we explore the extent to which cultural notions about sexual behavior enter into physicians' and Latina immigrants' beliefs about the risk factors for cervical cancer. We expect that physicians will be much more likely to frame their beliefs in reference to the biomedical research discussed here. However, we will examine for instances where epidemiological risk factors become interpreted as moral prescriptions. This would occur if the sex-based risk factors are interpreted to define, explicitly or implicitly, "appropriate" ages for sexual intercourse and an "appropriate" number of sexual partners, even if this occurs under the guise

of protecting women from getting cervical cancer through control of sexual behavior.

We find that, as one might expect, physicians and Latina immigrants differ in many of their beliefs about the risk factors for cervical cancer. They do, however, converge on their belief that sexual behavior is a predominant risk factor. We therefore ask, to what extent does this convergence reflect a similarity in the basic premises upon which sexual behavior is considered a risk factor? It is here that we find divergence; Latina immigrants' perceptions of health risks are embedded in a larger set of cultural values centering around gender relations and sexuality. Physicians' views, on the other hand, are largely based on the epidemiology of cervical cancer risk factors. But even here, the separation is not entirely complete. Moral issues also surface in the way some physicians discuss cervical cancer risk factors.

Although the women and physicians are not in direct dialogue in this analysis, they inhabit the same local environment and seek and provide medical services in that same environment. We believe this analysis will provide important information for helping to understand the communication, or lack thereof, that occurs when Latina immigrants and primary care physicians do dialogue about cervical cancer.³ An important corollary question for us is: What are the implications of characterizing cervical cancer as an STD for Latina immigrants who may already perceive the disease within a broad cultural framework of morality and sexuality? We will return to this final question in our concluding section.

THE STUDY

In the summer of 1991, we began a study to examine Latinas' knowledge and understanding of breast and cervical cancer.⁴ Of specific interest was how their perceptions of the possible cancer risk factors compared to those of physicians (Chavez *et al.* 1995; McMullin, Chavez, and Hubbell 1995). Between August 15, 1991 and August 15, 1992, we conducted ethnographic interviews with 30 physicians, 39 Mexican immigrant women and 28 Salvadoran immigrant women.

Our research site was set in northern Orange County, California. Overall, Orange County's population consists of about twenty-five percent Latinos (U.S. Bureau of the Census 1991b). However, the proportion of Latinos rises dramatically in the northern part of the County. For example, in Santa Ana, the County seat, two out of three inhabitants are Latino. We based our sampling procedure on a number of considerations. We needed to conduct a relatively small number of extensive ethnographic interviews, requiring long sessions in the interviewees' homes. The targeted population includes immigrants, some of whom are in the country as undocumented immigrants. Based on these concerns, we relied on organization-based network sampling. We made presentations to numerous social, educational, and religious groups in northern Orange County, and then asked women to volunteer to be interviewed. The establishment of rapport in this way was crucial. After seeing us and listening to our informal presentations, especially concerning guarantees of anonymity, many women did volunteer, and

some introduced us to other women. We assigned a code number to each volunteer by selection site, and randomly selected interviewees. At some sites, all volunteers were eventually interviewed, while at others only some were interviewed. At the very least, we insured that all interviewees were not drawn from the same site and social network. Interviews lasted on average between three and four hours, and were conducted in Spanish or English, depending on the interviewee's preference. All female respondents were interviewed by female interviewers, including the lead author. Table I presents a demographic overview of the Latina immigrants in the study.

Of the thirty physicians we interviewed, 18 were men and 12 were women (Table II). We desired physicians based both at the University of California, Irvine, College of Medicine and in the community at large. For the community-based physicians, who were in private practice, we sent a targeted group a letter, followed by phone calls, asking for their participation in the study. We contacted physicians affiliated with the university directly and requested their participation. One researcher (Leo Chavez) interviewed the physicians. Interviews took place at the physician's workplace, and lasted on average one hour. Physician interviewees included practitioners of internal medicine, obstetrics and gynecology, and family medicine. All of the physicians that we interviewed provided primary care to women, including pap tests, in the northern Orange County area. Interviewees estimated that Latinas ranged from 5% to over 60% of their patients, with 25% to 30% Latina patients an average caseload. Physician interviewees varied by ethnicity (Table II). We use "Anglo" for non-Hispanic whites, following the custom in the local area.

Interviews consisted of closed questions and many open-ended questions designed to gather in-depth, qualitative information.⁵ For example, we asked every informant "What do you think might cause or increase a woman's chances of getting cervical cancer?" We used SPSS-PC to organize and analyze responses to closed questions and sociodemographic data. We used AskSam to organize and analyze the open-ended questions. Using AskSam, we were able to code each question and then compare responses by sub-group, sex, or any combination of controlling variables. We also coded responses by themes, such as

TABLE I. Demographic characteristics for women respondents.

Mean (Range)	Mexican Immigrants (N = 39) %	Salvadoran Immigrants (N = 28) %
Age, years	40 (22-67)	35 (19-85)
School, years	6.0 (0-13.5)	7.6 (1-16)
Years in U.S.	10.4 (.5-41)	4.5 (.1-12)
Income/month/dollars	\$944 (\$80-4843)	\$949 (\$140-2000)

TABLE II. Characteristics of physicians.

	Physicians (N = 30)
Age (mean)	42
Years practicing medicine (mean)	17
Females (N)	12
Specialities (N)	
Internal Medicine	8
Family Practice	10
Obstetrics/Gynecology	12
Birth place and training (N)	
Foreign born	9
Foreign trained	7
Ethnicity (N)	
Latino	3
Asian	6
African American	1
East Indian	1
Anglo	18

morality. The two lead authors read the interviews, marking the text with agreed upon codes when they found an example of particular themes. The AskSam program then extracted the specific themes, which were examined for consistency and appropriateness (Glaser and Strauss 1967). Among the many features of AskSam is the ability to count the instances of word use by interview in order to arrive at a frequency.

FINDINGS

As Table III indicates, about a third of the Mexican and Salvadoran interviewees had never had a Pap exam or had one more than two years before the interview. None of the women had experienced cancer, but most of the Mexicans and many of the Salvadorans knew someone, a relative or friend, who had experienced cancer. Some of the Latina immigrants also had characteristics that suggested access to U.S.-based medical care was problematic. A significant proportion of Latinas did not have a regular physician or clinic, did not have private medical insurance, and had trouble communicating with medical personnel. More of the Salvadorans than Mexicans had not had a medical check-up within the last year, but many of the Mexicans had sought care in Mexico, which may account for this difference.

We found interesting similarities and yet considerable variation in perceptions of cervical cancer risks among the interviewees. Table IV presents the most frequently mentioned risks for cervical cancer for all the interviewees. We collapsed the interviewees' responses into the categories shown in the table. For example, there were many different ways the respondents expressed the idea of "many sexual partners." We examine verbatim responses below. Interviewees in a

TABLE III. Health-related characteristics of women respondents.

	Mexican Immigrants. (N = 39) %	Salvadoran Immigrants (N = 28) %
% Who have had cancer	0	0
% With family or friend who has had cancer	76.9	42.9
% Who have never had a Pap exam or for whom it has been more than two years since their last Pap exam	30.7	37.0
% Without a regular physician/clinic, or other health provider	38.5	42.9
% Who had their last medical checkup more than a year ago	15.4	39.2
% Who sought medical care in Mexico	28.2	3.6
% Who had trouble communicating with health care providers	23.1	17.9
% Who had private medical insurance	35.9	39.3

TABLE IV. Most frequently freelisted factors for cervical cancer.

Mexican women (N = 39)	%	Salvadoran women (N = 28)	%	Physicians (N = 30)	%
Lack of hygiene	44	Birth control pills	43	Many sex partners	93
Birth control pills	23	Many sex partners	29	Exposure to STDs	90
Many sex partners	23	Improper diet 40 days after giving birth	25	First sex at a young age	63
Abortion	21	Sex during 40 days after giving birth	21	Smoking	30
Lack of medical attention	21	Not caring for self after giving birth	21	Family history	20
Infections	18	Abortions	21	Poverty	13
Infected male	18	Sex during menstruation	18	Birth control pills	10
Miscarriages	15	Having many children	18		
Sexual relations	13	Vaginal contraceptives	18		
Rough sex	13	Improper diet during menses	18		
Having many children	13	Lack of hygiene	14		
Being hit in area	10	Tampons	7		
Tumors	10	Illegal drugs	7		
Illegal drugs	8				

particular group may have mentioned other risks, but in small numbers and so were not listed in the Table. We first examine the views of physicians concerning cervical cancer risks and then those of Latinas.

Physicians' Views of Cervical Cancer Risks

Early in the interview, we asked all interviewees to list the factors that, in their opinion, cause or increase a woman's risk of cervical cancer. We also asked them

to explain their answers. Of the thirty physicians, 93% cited multiple sexual partners and 63% cited sexual activity at an early age, reflecting the high prominence of the sex-based risk factors in the epidemiological literature (Table IV). Most physicians (90%) also cited exposure to sexually transmitted diseases. Other risks, such as smoking, heredity and birth control pills, were sometimes added, but with less frequency than the sex-based risk factors and viruses. Only four (13%) physicians mentioned socioeconomic status, indicating problems gaining access to health services and/or behavioral risk patterns. Multiple sexual partners and exposure to sexually transmitted diseases were sometimes linked together. The following comment by a 36 year old female physician who was born in Singapore includes many of these risk factors in her discussion of cervical cancer:

"Human papilloma virus is the big thing now. Multiple sexual partners, and that's a kind of generic coverall that just increases the risk by increasing your exposure to sexually transmitted diseases. Smoking has been shown to be one (risk factor). Herpes was a popular one, I'm not sure how firm the data is on that. Birth control pills but again that data is very tainted by the fact that there are women that, on birth control pills, didn't use barrier methods and therefore were more likely to have sexually transmitted diseases compared to IUD users or condom users who are selected for being monogamous."

As a result of the seeming certainty of sexual risks, and the risk posed by sexually transmitted diseases, the pervasive assumption among physician interviewees was that cervical cancer itself is a sexually transmitted disease. As a 36 year old male physician put it, *"The major risk is the number of sexual partners. Cervical cancer is a sexually transmitted disease."*

The characterization of cervical cancer as an STD raised the issue of it being a contagious disease, as this Anglo male physician of family medicine attempted to clarify:

"Well, the fact that cancer of the cervix is associated with promiscuity tells you that something is happening. It's transmissible, you know. There's something about having lots of sex partners that means that something can be carried from one person to another. That's very likely to be an infectious agent. So that it would be contagious in that sense. I mean not the cancer would be contagious but the agent that causes it would be."

When the physicians made the connection between cervical cancer and STDs, the human papilloma viruses served as the connecting link, since it was assumed and described as a virus that is sexually transmitted. Only four physicians failed to mention HPVs, concentrating instead on the sex-based risks and other risks. For example, a 37 year-old Korean American male physician said, *"Well, since as we learn, I believe that early sexual activity at a young age, multiple sexual partners, I think those two things tend to have an increased chance of cervical cancer."*

Even though most interviewees presented HPV as the harmful agent in their model of cervical cancer risks, their discussion of sexual behavior overshadowed the connection between HPV and cervical cancer. Four interviewees cited HPVs, but then questioned whether a connection between the virus and cervical cancer has been proven. For example, a physician said, *"Cervical cancer, I think, has to do with infections. Which means, you know, multiple sex partners, and early age of sexual*

activity. More likely it has to do with HPV, but I don't think it's a hundred percent." Another physician said, "There's a high correlation with human papilloma virus, but you have to weigh that question because everybody, I'm exaggerating, but everybody has human papilloma virus and not everybody gets cancer."

In sum, physicians mentioned sexually transmitted diseases as a risk factor, but emphasized sexual behavior risk factors. This finding is in keeping with the stronger epidemiological research on sex-based risk factors for cervical cancer compared to the inconclusive clinical research on the HPV/cervical cancer connection. Interesting, however, was the lack of attention paid to the socio-economic risk factors, which, according to the literature, are important for U.S. Latinas.

Morality and Cervical Cancer

In their discussions, physicians sometimes crossed the boundary into a moral interpretation of the sex-based risks. For one sixty-year old Anglo male physician, the human papilloma virus and its relation to cervical cancer was not as important as sexual behavior and morality. He made the following comment:

"Well, we're focusing pretty much on HPV now. But the big problem is changing sexual morals. For example, I just got back from Ireland... I went to various centers. They're just now debating about whether mandatory pap smears should become a national priority. [Ireland has] completely different morals. There, it's like going into a time warp. You go back twenty, twenty-five years. So, they're just now beginning to see the sexual revolution that we've experienced. But, the average college female senior has had six different sexual partners by the time she's a senior in college... here in the United States."

The connection between society's morals and the risk of disease is clear in this quote. The "sexual revolution" in the United States led to changes in sexual mores and behavior that have increased women's risk for cervical cancer. Women in college are particularly apt to behave in an immoral pattern of sexual behavior.

A shift into moralistic interpretations of the sex-based risk factors is also observable through use of the terms "promiscuous" and "promiscuity" in place of "multiple sexual partners" and "sex at an early age." Seven of the thirty physician interviewees (23 percent) mentioned "promiscuity" in relation to cervical cancer. These seven physicians were all males, or 39% of the male physicians. The use of "promiscuous" was, therefore, not widespread among the interviewees, but its use by almost one out of four physicians deserves further attention. Four of the physicians were Anglos, and three were foreign-born, one in Iran, one in Thailand, and one in Nicaragua. Two were obstetrician/gynecologists, 3 were internal medicine specialists, and 2 were in family medicine. Two worked for the university and five were in private practice.

An Anglo male physician, age 54, brought up promiscuous behavior in particular as the focal point from which to discuss risk. He said, "Well, the best known risk factor is promiscuity but I believe that most of the people who think about this a lot believe that it can be promiscuity of the husband as well as the woman. So

whereas the literature on this says that promiscuous women are at higher risk of cervical cancer, I think that the thinking now is that she doesn't have to be promiscuous if she has a promiscuous husband."

Another Anglo physician, age 65, said, in response to a question about risk factors, *"Well they talk about the uncircumcised husband. I think that promiscuity we know; a lot of PID [pelvic inflammatory disease], and I think the virus things we think might increase the incidence of cancer."* A 47 year-old, Nicaraguan-born physician said, *"Well, basically, starting at a very young age sexual intercourse, promiscuity also. Those are the main two factors. Out of that could derive some other factors, you know viral infections, papilloma virus etc..."* An Iranian-born physician, age 33, started out by talking about viral infections but ended with a reference to promiscuity. He said, *"Really the risk factor is infection, infection [by] a sexually transmitted virus, that's the main factor so if you break that down then you talk about sexual promiscuity."*

The use of the term promiscuous by some physicians could have several explanations. For example, the term could be interpreted as the strategic use of a vernacular term that is more commonly understood by the lay person than "multiple sexual partners." This would assume that "promiscuous" and "multiple sexual partners" are simple synonyms. Another explanation would posit that "promiscuity" is not a value-free term, especially when it is associated with STDs. In the examples above, the use of "promiscuity" could be said to transmit an implicit, and sometimes explicit, moral judgment about sexual activity. In this interpretation, promiscuity implies more than the somewhat vague term "multiple sexual partners." Multiple sexual partners, as used in the epidemiological literature is typically operationalized as two or more, or four or more, sexual partners. But does this mean two or more, or four or more sexual partners in a weekend? in a month? in a lifetime? Do each of these time frames carry the same risk? Assuming that multiple sexual partners were experienced in a short amount of time can lead to an assumption of improper or immoral sexual activity of the sort implied by the term promiscuous. Further evidence of the moral connotations associated with the term promiscuous is found in the way it is used in some of the examples above as an element to characterize the type of woman at risk for cervical cancer. Promiscuity, however, is only one possible element in the characterization of women at risk.

Characterizations

In some of the physicians' etiologic discussions of cervical cancer, they jumped back and forth between characterizations of people and risk factors, and sometimes combined the two without hesitation. For example, a 46 year-old physician born in Thailand said, *"...If they have more pregnancies or [are] more sexually promiscuous, I feel that those are the ones that can have more chances of cervical cancer... I would say to be more definite multiple sexual partners and also because of those they would have higher chances of becoming pregnant, too."*

For this physician multiple pregnancies and multiple sexual partners are risk factors for cervical cancer. But he also connects multiple sexual partners and the chances for pregnancy as a way of characterizing women at risk for cervical

cancer. Later in the interview, when he was asked if drinking alcohol was a risk factor for cervical cancer, the same physician added to this characterization: *"Well, maybe indirectly... and [then] going and having sex."* Alcohol is an indirect risk factor if it results in what must be assumed is "illicit" sexual intercourse, since if the woman was having sex within the confines of a steady relationship the risk would not be any greater with, or without, alcohol.

Use of birth control pills, like alcohol, can be part of a characterization of women at risk for cervical cancer. A 36 year-old Anglo male physician, for example, made an inference about women who use birth control pills. When asked if use of birth control pills was a risk for developing cervical cancer, he said, *"Well, I guess it's yes... not from the hormonal standpoint, but people aren't using diaphragms and they have lots of sexual partners."* Thus, having many sexual partners while using birth control pills provides less protection than the use of diaphragm, or, ostensibly, prophylactics. But because the statement offers no further qualifications, a characterization of women at risk is implied: women who use birth control pills have "lots of sexual partners."

Characterizations of women at risk also include family history, but in this case behavioral, not genetic, patterns. As one physician (a sixty-year-old woman born in India) explained it, *"I have seen [cervical cancer] running in the family but then that's again the same behavior pattern, not heredity point of view but behavior point of view. Yes, I will put it that way. Your question is, if a sister has [cervical cancer] what do you think about a sister having it. And my answer would be yes, not from hereditary point of view but [because] 'birds of a feather flock together,' I mean they have the same patterns."*

Lower socioeconomic status is part of the characterization of the woman at risk. As the 33 year-old Iranian-born male physician commented, lower socioeconomic status and promiscuous behavior appear to imply one another: *"If you want to talk about social factors it would be interesting. I would take into account these articles written, that lower socioeconomic class should be thrown in there as a risk factor for developing [cervical cancer]. This is mainly because screening tests are not done. But also, probably sexual promiscuity might be higher."*

In sum, physicians primarily cited risk factors for cervical cancer that are found in the epidemiological literature. They focused, however, mostly on sex-based risk factors. Although most of the physicians seemed to avoid moralizing about the disease, some of the physicians used the term promiscuity, and some included moral observations and interpretations in their observations about women at risk and their behavior. Importantly, the sexually-related behavior of men was not mentioned very often by the physicians, who focused on women's behavior. This is important because it is such a glaring contrast to Latina immigrants, who attribute much of their risk for cervical cancer to male behavior.

Latina Immigrants

How do physicians' views compare with those of Latinas? Mexican and Salvadoran women suggested a number of possible risk factors for cervical cancer (Table IV). As the table indicates, many of the risks offered by the Latina

immigrants relate in some way to sexual behavior, including the risk posed by having many sexual partners. Interestingly, therefore, Latina immigrants and physicians share a similar concern for the risks posed by sexual behavior. However, rather than linking sexual behavior with the transmission of HPVs or STDs, Latina immigrants link sexual behavior to the broader theme of risks posed by behavioral and lifestyle choices. In other words, they expressed a concern for behavior that they perceived as non-normative (disorderly) or evaluated in moralistic terms. As a consequence, the risk posed by multiple sexual partners is embedded in a cluster of risks such as a lack of hygiene or cleanliness, taking birth control pills, seeking abortions, sex during menstruation, and improper post-natal activities. They also attribute cervical cancer risk to a number of factors that we have categorized into the theme of physical stress/trauma. We will examine these perceptions of cancer risk in detail, ending with their moral interpretations of sexual activity.

Lack of Hygiene

In response to the question asking for their beliefs about the risks for cervical cancer, many of the Latina immigrants, especially the Mexican women (44%), suggested that a lack of hygiene or cleanliness posed a risk for cervical cancer. There were various aspects to this concern. Some Latinas talked about a lack of hygiene in the vaginal area without explicit reference to sexual intercourse. Others specifically related hygiene to sexual behavior. For example, the following statements emphasize the importance of cleaning one's vaginal area after having sexual relations in order to reduce the risk of developing cancer of the cervix. One thirty-six year-old Mexican woman responded this way: *"What I have always known is that one should buy one's douche and when you [have sex] and aren't using prevention, do your cleaning."* A similar concern was echoed by another 38 year old Mexican woman, *"After having [sexual] relations, well, to go and clean oneself quickly or something . . . yes, to wash, I think, who knows, because of an infection or something."*

Lack of hygiene as a risk for cervical cancer can carry over into discussions of multiple sexual partners with highly moralistic undertones. Consider the following quote by a sixty-seven year-old Mexican woman who was discussing her beliefs about the factors that increase a woman's chances of getting cervical cancer: *"There are so many things, but overall the hygiene that one must maintain as a woman. To keep oneself very clean so as not to contract some kind of disease. Another thing that I see here in the United States is that it is seen as very natural for a woman to go out with a man even though he is married and then to go out with another man and then another. And for me, I don't think that is correct to have so much [sexual] contact with many men."*

The statements by these women suggest that not being careful in one's sexual practices and in being "clean" could lead to an illness such as cervical cancer. Notice how the woman attaches her view of women in the U.S. engaging in inappropriate (not "correct") sexual behavior, that is, with married men and many men. Her comments flow from hygiene and cleanliness to disease to

inappropriate sexual behavior. The question left unsaid is, how can a woman who engages in such behavior keep herself clean and therefore healthy? This point is underscored in the subsequent example given by a 26 year old Salvadoran woman who describes how a woman who she knew developed cervical cancer: *"Well, she used to be very careless, very neglectful of herself because she didn't just have one husband, she had various . . . and perhaps she didn't take much care of herself, she didn't clean herself, I feel that that's why [she got cancer], carelessness with personal hygiene."* This woman is speaking about the relationship between hygiene and sexual behavior. She also displays a moral tone through her use of negative words and phrases to characterize a woman who had cervical cancer, the woman was "careless," "neglectful," "didn't just have one husband," "didn't clean herself." The woman's health problems arose "because she didn't just have one husband, she had various." "Various" is not neutral here either, for it implies many, and in conjunction with the "didn't just have one" gives a clear negative signal as to the woman's character. With so many husbands one has to be particularly careful of personal hygiene or it can lead to cervical cancer, in this woman's view. Thus many husbands, or sexual partners, and a lack of hygiene are connected as a risk factor in her explanation of cervical cancer.

The meanings attached to perceptions of "proper" sexual behavior and "cleanliness" can also extend far beyond a reference to the sex act itself. Consider the following quote from a sixty-seven year-old Mexican woman talking about why she does not believe herself to be susceptible to cervical cancer: *"Because I don't have a husband I keep myself clean, I don't even have bad . . . well, because there are some women who even though they don't have a husband and they are widows, they are always looking for sexual diversions. They are looking to excite themselves through movies, through books and novels that they read and all that. I don't have any of those ideas, my life is tranquil, peaceful. In other words, my diversions are healthy."* In this case, unmarried women who show any interest in things sexual are also "unclean," "unhealthy," and generally "immoral." They are, unlike herself, at risk for cervical cancer.⁶

The women in these examples are talking about personal hygiene, which they relate directly to sexual relations, and the examples they give are with men who are not their husbands and therefore outside of morally sanctioned sexual relations. Being dirty, having sex with men not your husband, and perhaps more than one man, are interrelated in their discussions of cervical cancer risk factors. They are asserting the dirtiness of illicit sexual encounters and the need for attention to hygiene to return to a state of cleanliness and health, and therefore a state of lowered risk for cervical cancer. Their use of the concept of hygiene often becomes a metaphor for sexual purity, or at least trying to correct lapses or moral indiscretions in sexual behavior. This interpretation derives directly from the women's language of risk.

In a similar fashion, a woman who has not had sex is perceived as being "clean." Consider this quote from a twenty-two year-old Salvadoran woman in which she connects "cleanliness" and virginity: *"Well, I think that the women who are not, let's say, a woman who doesn't worry about that [cervical cancer], it's because she hasn't had [sexual] relations, she knows that she is clean."* On one level, she may

be referring to the idea that a woman who has not had sex is "clean" because she is free from diseases or infections that may be sexually transmitted. But the association between cleanliness (hygiene) and sexual behavior has broader cultural meanings having to do with "purity," "innocence" and "safety." Women who are "pure" (i.e. "virginal") are rewarded with peace of mind; they are not in danger of suffering the possible consequences of sexual "contamination," which includes cervical cancer. It follows that "impure" women need to pay attention to hygiene to return to a state of cleanliness and thus health. In short, these women are advocating attention to personal hygiene as a preventative behavior for cervical cancer.

Improper Post-Natal Care

In many Latin American countries, including Mexico and El Salvador, there is a cultural belief that for forty days after giving birth women should not engage in sexual intercourse, not lift heavy objects or do strenuous physical exercise, follow a culturally appropriate diet, and generally take care of one's health. In our study, Latina immigrants, especially Salvadorans, frequently mention improper post-natal care as a risk factor for cervical cancer. A few Mexican women also discussed these items, but because their numbers were low they did not appear on Table II, which lists the most frequently cited items for each group of interviewees.

An important aspect of "improper" post-natal care was engaging in sexual relations within the culturally prohibited forty days after giving birth. Some Latina immigrants interwove this concern with preoccupations about a lack of hygiene, as exemplified by this 38 year old Salvadoran woman's discussion about why some women get cervical cancer: *"Because there are some of us women who have our children and we don't take care of ourselves, right? and therefore because of all that [they get cervical cancer]. First of all, having [sexual] relations with your husband right after [giving birth], doing disorderly [desarreglos] things like that, because as a woman you have to take care of yourself in what you eat and also in being clean."* The "natural" (culturally defined) order of life is a moral order. Disorder raises the specter of a breach of the moral order which in turn is associated with health risks. Having sexual relations too soon after birth is disorderly and undermines a woman's capacity to take care of herself, to stay "clean," and therefore threatens her state of health.

Order and disorder frame the health risk posed by not following prescriptions for proper post-natal care, which includes eating the right type of food and avoiding strenuous physical activities within forty days after giving birth. For example, one woman raised these issues when discussing the risk factors for cervical cancer, *"They [women] think that they are gaining a lot by jogging right after giving birth. It's not true because in the long run they are wasting more. It's not even half a month [after giving birth] and they already put on their tennis shoes. Oh, please! When I had my baby, I took care of myself for three months. Eight days without getting up. On the fortieth day I went to church so I would be strong ... One is to blame, being young you think you are strong but then they have problems. That's the way it is and*

many times women aren't to blame, but men are also beasts. The next day they want you to get up and cook for them, as if they didn't know how to cook an egg." Women who flaunt the cultural rules for post-natal care increase their risk of cervical cancer. Proper attention to the rules is preventative of illness and is also morally proper, which is underscored by the woman ending her forty days of restrictions by attending church, which ensures her moral and physical strength.

Activities during Menstruation

Notions of order and disorder also characterized activities during menstruation. Latina immigrants, particularly Salvadorans, believed that having sexual relations and not following a proper diet during menstruation were disorderly and therefore raised a woman's risk for cervical cancer. The following response by a 29 year-old Salvadoran woman to the question about what might cause or increase a woman's chances of getting cervical cancer illustrates how breaking cultural rules can put a woman at risk for cervical cancer:

"Not cleaning oneself. Doing disorderly [desarreglos] things possibly when you are menstruating. My great-grandmother died when she was 108 years old. But my great-grandmother was a woman who people said took care of herself. She would wait 8 days after her period started before she bathed. And she didn't eat avocados or anything cold, right; eggs, because eggs are bad for you, eggs are bad because they make the blood stink, not the egg whites, but the yolks. That is bad. I don't recommend it when you are menstruating... The doctors say it doesn't matter. That's what they say but they are men and a woman should protect herself. These things are insignificant, but they have an effect when you are menstruating."

This woman discusses the risks for cervical cancer by elaborating on the importance of following the rules of behavior for prevention of the disease. She reinforces the importance of her beliefs by invoking ancestors who lived a long time because they followed the appropriate practices during menstruation. Moreover, her ancestor's example provides legitimate knowledge about menstrual practices, which, she warns, physicians do not understand.

Engaging in sexual intercourse during menstruation intersects with other risky behaviors discussed earlier, such as a lack of concern for personal hygiene and, as in the following case, becoming sexually active at a young age. A 23 year old Salvadoran woman emphasized the double risk of having sex at an early age and engaging in sex during menstruation: *"...my mom had a friend who began having [sexual] relations very young and her husband would grab her when she was on her period and that woman developed cancer, but no one [doctor] ever said it was because of that, but that is what she suspected."*

Latina immigrants' understanding of cervical cancer risk does not focus solely on a woman's behavior but also includes the behavior of a woman's male partner, suggesting that men may act immorally by demanding sexual intercourse from a woman during inappropriate times (i.e. during menstruation and within forty days after giving birth). These examples suggest the manner in which Latina immigrants employ cultural notions of order and disorder as a means of defining risky behavior. Order and morality are linked together in

these discussions, as are their corollaries disorder and immorality, which equal, in this logic, health risks. Menstruation follows an orderly cycle. Sexual activity during menstruation, in this view, disrupts that order, and that disorder raises a woman's risk of cervical cancer.

Physical Stress/Trauma

A number of possible cancer risks had to do with physical stress or trauma to the vaginal area. Getting hit or injured in the vaginal area raises the risk of cervical cancer in their views. Having many children also places physical stress on the vaginal area, thus raising the risk of cervical cancer. Physical stress also embodied conceptions of morality. Sex itself, if engaged with a frequency or in a manner that went beyond the "normal" or "expected," could constitute a cancer risk. For example, a 61 year-old Mexican woman suggested that Anglo women had higher rates of cervical cancer than Latinas, because:

"Well, I imagine that there is more [cervical cancer] among Americans. Because of the same reason I told you, that they don't take care of themselves. I had an American girlfriend. She had two children but her husband was a husband who had an illness, he wanted more sex, sex, sex. And he mistreated her, it was something excessive. She had to divorce him because he was mentally ill and he was also driving her crazy. I think it is a complete abuse of the body."

The risks of acquiring cervical cancer, for these women, are not only related to sexually "promiscuous" behavior, as the biomedical model would have it, but to a number of factors that are placed in a context of social/sexual relationships. For example, rough sex is described by some women as being harmful to the uterine because it is felt to be a "delicate area": *"It depends on the manner in which they make love, whether it's savage-like or brusque because I imagine that all that has to do with it [cervical cancer]. They are very delicate areas [uterus and cervix]."* Cultural conceptions of the body, including the "delicate area," are reflected in women's perceptions of risk. In addition, husbands and boyfriends play a central role in Mexican and Salvadoran women's perceptions of cervical cancer risk. "Risky" behavior is not only attributable to women (e.g., number of sex partners and sex at an early age) but also upon men who are "rough" or "brutes."

Twenty-one percent of the Mexican women and 25 percent of the Salvadoran women mentioned abortions as a risk factor. In their explanations for why abortion is a risk, many of the women combined issues of physical trauma, morality, and, in some cases, hygiene. For example, the following statement from a 52 year-old Mexican woman contains these three elements:

"Maybe it [cervical cancer] is because they stop the baby from coming and they yank it out using herbs, like women who do it with teas, and there remains like a sore or wound. Just think about how a germ can get in there. Because sometimes its one's own fault to be practically rotting because of a stupidity like that. It's preferable to have baby and not yank it out because a sore remains there. Afterwards, if she makes love too soon and her partner is not clean in that area, a bunch of dirty junk is going into her wound."

Her explanation of the possible risk of abortion for cervical cancer is quite complex, combining physical trauma of "yanking" and creating a sore, and all because of, in her judgement, "stupidity." In addition, engaging in intercourse too soon (before the wound is healed) with a partner who is "not clean" can further aggravate the situation. She, like many of the women we interviewed, combined several themes in her understanding of the risk factors for cervical cancers.⁷

The use of birth control pills must also be placed under the theme of physical stress. About a quarter (23%) of the Mexican women and 43% of the Salvadoran women expressed that women who take birth control pills were at risk for cervical cancer. Rather than equating birth control pills with a threat of hormone exposure, some women cited the belief that birth control pills accumulate and do not dissolve in the woman's body, causing damage, as did this 45 year old Salvadoran:

"Taking [birth control] pills, I heard that you can get this illness. It develops because, I heard of a woman in El Salvador who was pregnant. Anyway, she had taken birth control pills for eight years. She stopped taking them and got pregnant. And then they did some tests on her, and she thought she was going to have twins. You could see two round balls in the X-ray they did of her, and one was the baby and the other one was like a big ball, like a ball of dough made from the pills that she had taken."

Not drinking sufficient quantities of water when taking birth control pills contributed to this problem accumulation of birth control pill substance. Latina immigrants also believed that the use of birth control pills, as well as vaginal contraceptives, impeded the natural process of reproduction. This disorder, in their opinion, must have implications for cancer risks. And finally, birth control pills are associated with sexual behavior, a theme discussed in the following section.

Monogamy and Cervical Cancer

Extra-marital sexual relations on the part of male partners or husbands was also mentioned as a risk for cervical cancer by some of the women. For example, a twenty-three year old Mexican woman voiced these concerns: *"Well if you have sexual contact with someone who is sick ... like if the person were infected ... if that man messes with a woman of the street, who is very dirty and who is with many men and many times you don't even know. Many times you can even get that [infection] from your own husband, from your own husband. I mean, you don't know if he has had [sexual] contact with another person. I mean, it doesn't have to be precisely a woman of the street."*

Sex outside an "appropriate" relationship for women was also discussed. According to a thirty-two year-old Mexican: *"The Latin women here in the United States are a little more liberated here than in their own country. But the Anglo-Saxon woman beats them, right? Because naturally they [Anglo women] are more liberal, they have more sex, with one man and then another and that is bad."* The same woman later said, *"Well, God does not punish but it [cervical cancer] can result from the bad life that one leads, sexually."*

In some cases, "lack of hygiene" was intertwined with these concerns about monogamy; particularly, the need for a woman to maintain "cleanliness" in the face of a husband who is not monogamous. As a thirty-six year-old Mexican woman said: *"To cause [cervical] cancer, well, I think that it has to do with the cleanliness that one—I don't mean being unclean—I mean that one is not always protecting oneself from an infection that a man could have. Like a woman who is married and her husband, if he has another woman, lover, or he goes to places where there is so much stuff and she doesn't know, and she doesn't protect herself from anything."*

CONCLUSIONS AND IMPLICATIONS FOR HEALTH CARE

Physicians and Latina immigrants in this study both converged and diverged in their views concerning cervical cancer risk factors. They both focused on sexual behavior as the predominant factor increasing a woman's risk for cervical cancer. They did so, however, mostly for different reasons. Physicians generally based their views on the epidemiological literature, which finds a strong association between multiple sexual partners and early onset of sexual activity with cervical cancer. Physicians also stressed the importance of sexually transmitted diseases for cervical cancer, especially human papilloma viruses. Latina immigrants viewed certain forms of sexual behavior as risky for a number reasons, most of which reflect a broader cultural framework of morality, sexuality and health. Some physicians, we found, also related moral aspects of sexual behavior to cervical cancer.

Latina immigrants emphasized the implications of behavior and lifestyle as risk factors for cervical cancer, often giving a moral interpretation to the illness. Their views of risk derived from a subjective, lived experience that is concerned with social norms and order (Gifford 1986). They did not "desocialize" the disease in the way most of the physicians did when they attributed the mechanism (cause) of the disease to a virus (HPV) (Harris 1989). They explained and interpreted cervical cancer within a context of social relationships. Women who have sex with men "not their husbands" or with many men increase their risk of cervical cancer because they violate sexual mores. Women who do not follow eating, resting, and sex prescriptions after giving birth or engage in sexual intercourse during menstruation disrupt their body's "natural" order and increase their risk of cervical cancer. Women who do not pay attention to their personal hygiene in relation to sexual intercourse cannot return to a state of cleanliness, both physical and moral, thus raising their risk for cervical cancer. Women who abuse their bodies with abortions and birth control pills also disrupt the "natural" order of life and raise their risk for cervical cancer. Although Latina immigrants expressed these views when speaking specifically about cervical cancer, these beliefs reflect more general cultural notions about appropriate sexual behavior for "good" women and the possible health problems that can be brought on by immoral behavior.

Because they placed cervical cancer within the realm of everyday male and female relationships, Latina immigrants emphasized men's behavior as risk

factors. The role of males was not emphasized in the physicians' discussions of risk related to multiple sexual partners. For Latina immigrants, men increased a woman's risk of cervical cancer by bringing home "infections" resulting from extra-marital affairs, and by demanding sexual relations at inappropriate times (e.g., too soon post-partum, during menstruation, engaging in rough sex, demanding too much sex). Men in this sense increased a woman's risk through their morally questionable behavior or by making women disrupt the "natural" order of their bodies' cycles and needs.

Both the physicians and the Latina immigrants in our study paid considerably less attention to socioeconomic factors. Some physicians did list poverty as a risk factor, which is also a factor in the epidemiological literature. And yet, Latina immigrants such as those in this study face obstacles to acquiring health care, including low incomes, low education levels, lack of medical insurance, language differences, and sometimes a lack of documentation for legal immigration.

Although physicians based their assessments of risk factors largely on objective and scientific epidemiological research, their views were not entirely free of cultural notions of sexuality and moral behavior. Some of the physicians displayed moral interpretations of the sex-based risk factors for cervical cancer. This occurred through the use of the culturally-loaded term "promiscuous" in place of "multiple sexual partners," through specific references to morality, and through characterizations of women at risk for cervical cancer.⁸ This occurs, perhaps, because concepts such as "multiple sexual partners" and "sex at an early age" can elicit, even unintentionally, many meanings and responses beyond the narrowly defined operationalized meanings in epidemiological studies. These sex-based risk factors, when expressed within a larger system of cultural values, raise the specter of behavior that exists on the margins of "normative," "valued," and "respectable" conduct.

Our results have important implications for physicians who provide health care for Latina immigrants. Based upon epidemiological evidence, the medical community increasingly regards cervical cancer as a sexually transmitted disease. Indeed, the National Cancer Institute recently recommended more education about the relationship between HPV and cervical cancer and the use of condoms to prevent the disease (McNeil 1996). It is not clear how this tendency will affect beliefs about this cancer or the use of cervical cancer preventive services among Latina immigrants. However, in a recent study, we found that Latinas who believed that sexual behaviors were risk factors for cervical cancer were less likely to receive Pap smears, even after controlling for potentially confounding variables such as health insurance status and income (Hubbell, et al. 1996). In addition, other research has indicated that for many non-physicians, calling cervical cancer an STD makes cervical cancer itself a signifier of improper and immoral behavior on the part of the afflicted (Posner 1991; Posner and Vessey 1988). Combined with these findings, our results imply that health educators should develop cervical cancer control programs for Latina immigrants that take into consideration the strong moral foundations regarding beliefs about risk factors for this disease. Such programs should also educate physicians about the differences between their beliefs and those of their Latina

patients. Otherwise, the increased emphasis on sexual transmission of cervical cancer could even have the unwanted effect of lowering the rates of Pap smear use in this population.

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NOTES

1. For example, the National Council to Combat Venereal Disease in Britain warned against the dangers of illicit sex but did not offer advice on the use of condoms because this would condone "immoral" behavior (Armstrong 1983, as cited in Turner 1984).
2. Latinos is used here rather than Hispanics. Latina is feminine; Latinas refers to Hispanic women.
3. This approach follows that of Emily Martin (1987), who compared the characterizations of women's bodies found in medical school textbooks with women's beliefs gathered through interviews with women about reproduction, menstruation, and menopause.
4. Cervical cancer rates in Latin America are among the highest in the world (Franco 1991). In the U.S., Latinas have the highest rates of cervical cancer and the highest cumulative risks, compared to non-Latino white and black women (Anton-Culver et al. 1992). According to Muir et al. (1987), Latinas in Los Angeles had a cervical cancer rate of 18.5 per 100,000 women per year, compared to 14.1 for African American women and 8.2 for Anglo women. The cumulative risk over a lifetime for Latinas was 1.9, compared to 1.4 for African American women and 0.8 for Anglo women. Another recent study found that rates of cervical cancer were higher for Hispanic (which includes women of Mexican, Central American, Cuban, Puerto Rican and South American origin) than for non-Hispanic women in New York City, Los Angeles County, and the Lubbock, El Paso, San Diego, and San Francisco Bay areas (Trapido et al. 1995). In addition, Latinas also have relatively low rates of use of cervical cancer screening tests (Pap smear tests), and they are more likely than other women to have progressed to more advanced stages of cervical cancer when they seek care for the disease (Ginzberg 1991; Morris et al. 1989). Although structural barriers to health care may account for Latinas' under-utilization of health care services, cultural beliefs have also been found to be of importance when the cost of care is controlled (Perez-Stable et al. 1992).
5. We also employed the systematic data collection techniques of freelist and ranking (Weller and Romney 1988) to elicit cultural models of cancer risks. Analysis of the ranking data is presented elsewhere (Chavez et al. 1995; McMullin, Chavez, and Hubbell 1995).
6. Latina immigrants' views about hygiene and sexuality are reminiscent of Mary Douglas's (1966) work on "purity" and "danger."
7. Some Latinas emphasized the moral implications of abortion apart from any physical stress or trauma, as did this 59 year old Mexican woman: *"God gives, well I think that people themselves look for diseases. In other words, there are persons who go looking for a clinic to abort their children, then they are the ones who are more likely to [get diseases]."*
8. As Emily Martin (1987:48) has pointed out, "...unacknowledged cultural attitudes can seep into scientific writing through evaluative words."

REFERENCES

- Amarasingham Rhodes, L.
1991 Studying Biomedicine as a Cultural System. *In* *Medical Anthropology: Contemporary Theory and Method*. T.M. Johnson and C.F. Sargent eds. Pp. 159–173. New York: Praeger.
- Anton-Culver, H., J.D. Bloss, D. Bringman, A. Lee-Feldstein, P. DiSaia, and A. Manetta
1992 Comparison of Adenocarcinoma and Squamous Cell Carcinoma of the Uterine Cervix: A Population-based Epidemiologic Study. *American Journal of Obstetrics and Gynecology* 166: 1507–14.
- Arnold, D.
1993 *Colonizing the Body: State Medicine and Epidemic Disease in Nineteenth-Century India*. Berkeley: University of California Press.
- Armstrong, D.
1983 *Political Anatomy of the Body, Medical Knowledge in Britain in the Twentieth Century*. Cambridge: Cambridge University Press.
- Balshem, M.
1991 Cancer, Control and Causality: Talking about Cancer in a Working-class Community. *American Ethnologist* 18(1):152–172.
- Becker, T.M., C.M. Wheeler, N.S. McGough, C.A. Parmenter, S.W. Jordan, C.A. Stidley, R.S. McPherson, and M.H. Dorin
1994 Sexually Transmitted Diseases and Other Risk Factors for Cervical Dysplasia Among Southwestern Hispanic and Non-Hispanic White Women. *Journal of the American Medical Association* 271:1181–1188.
- Cannistra, S.A. and J.M. Niloff
1996 Cancer of the Uterine Cervix. *The New England Journal of Medicine* 334:1030–1038.
- Chavez, L.R., F.A. Hubbell, J. McMullin, R.G. Martinez, and S.I. Mishra
1995 Structure and Meaning in Models of Breast and Cervical Cancer Risk Factors: A Comparison of Perceptions among Latinas, Anglo Women, and Physicians. *Medical Anthropology Quarterly* 9:40–74.
- Devesa, S.S., J.L. Young Jr., L.A. Brinton, and J.F. Fraumeni
1989 Recent Trends in Cervix Uteri Cancer. *Cancer* 64:2184–2190.
- DiGiacomo, S.M.
1992 Metaphor as Illness: Postmodern Dilemmas in the Representation of the Body, Mind and Disorder. *Medical Anthropology* 14:109–137.
- Dorrington, C.
1995 Central American Refugees in Los Angeles: Adjustment of Children and Families. *In* *Understanding Latino Families*. R.E. Zambrana, ed. Pp. 107–129. Thousand Oaks, CA: Sage Publications. Pp. 107–129.
- Douglas, M.
1966 *Purity and Danger: An Analysis of the Concepts of Pollution and Taboo*. New York: Routledge.
1992 *Risk and Blame: Essays in Cultural Theory*. New York: Routledge.
- Ehrenreich, B. and D. English
1978 *For Her Own Good: 150 Years of the Experts' Advice to Women*. New York: Doubleday.
- Fackelmann, K.A.
1993 Deadly Duo Leads to Cancer of the Cervix. *Science News* 143:38.
- Fee, E.
1989 Venereal Disease: The Wages of Sin? *In* *Passion and Power: Sexuality in History*. K. Peiss and C. Simmons, eds. Pp. 178–198. Philadelphia: Temple University Press.
- Fisher, S.
1986 *In the Patient's Best Interest: Women and the Politics of Medical Decisions*. New Brunswick, NJ: Rutgers University Press.
- Foucault, M.
1979 *Discipline and Punish: The Birth of the Prison*. A.M. Sheridan Smith, trans. New York: Vintage Books.

- 1990 *The History of Sexuality: An Introduction*. New York: Vintage Books.
- Franco, E.L.
 - 1991 The Sexually Transmitted Disease Model for Cervical Cancer: Incoherent Epidemiologic Findings and the Role of Misclassification of Human Papilloma virus Infection. *Epidemiology* 2:98-106.
- Frankenberg, R.
 - 1993 Risk: Anthropological and Epidemiological Narratives of Prevention. In *Knowledge, Power, and Practice: The Anthropology of Medicine and Everyday Life*. Shirley Lindenbaum and Margaret Lock, eds. Pp. 219-244. Berkeley: University of California Press.
- Gifford, S.M.
 - 1986 The Meaning of Lumps: A Case Study of the Ambiguities of Risk. In *Anthropology and Epidemiology*. Craig R. Janes, Ron Stall and Sandra M. Gifford, eds. Pp. 213-248. Boston: Kluwer Academic Publishers.
- Ginzberg, E.
 - 1991 Access to Health Care for Hispanics. *Journal of the American Medical Association* 265: 238-241.
- Glaser, B.G. and A.L. Strauss
 - 1967 *The Discovery of Grounded Theory: Strategies for Qualitative Research*. New York: Aldine.
- Good, B.J. and M.-J. Del Vecchio Good
 - 1993 "Learning Medicine": The Constructing of Medical Knowledge at Harvard Medical School. In *Knowledge, Power, and Practice: The Anthropology of Medicine and Everyday Life*. S. Lindenbaum and M. Lock, eds. Pp. 81-107. Berkeley: University of California Press.
- Haraway, D.
 - 1993 The Biopolitics of Postmodern Bodies: Determinations of Self in Immune System Discourse. In *Knowledge, Power, and Practice: The Anthropology of Medicine and Everyday Life*. S. Lindenbaum and M. Lock, eds. Pp. 364-410. Berkeley: University of California Press.
- Harris, G.
 - 1989 Mechanism and Morality in Patients' Views of Illness and Injury. *Medical Anthropology Quarterly* 3:3-21.
- Helms, M.W.
 - 1982 *Middle America: A Culture History of Heartland and Frontier*. Lanham, MD: University Press of America, Inc.
- Herrero, R., et al.
 - 1990 Sexual Behavior, Venereal Diseases, Hygiene Practices and Invasive Cervical Cancer in a High-Risk Population. *Cancer* 65:380-386.
- Hondagneu-Sotelo, P.
 - 1994 *Gendered Transitions: Mexican Experiences of Immigration*. Berkeley: University of California Press.
- Horowitz, R.
 - 1983 *Honor and the American Dream*. New Brunswick NJ: Rutgers University Press.
- Hubbell, F.A., L.R. Chavez, S.I. Mishra, and R.B. Valdez
 - 1996 Beliefs About Sexual Behavior and Other Predictors of Pap Smear Screening Among Latinas and Anglo Women. *Archives of Internal Medicine* 156: 2353-2358, 1996.
- Hunter, K.M
 - 1991 *Doctors' Stories: The Narrative Structure of Medical Knowledge*. Princeton: Princeton University Press.
- Irwin, S. and B. Jordan
 - 1987 Knowledge, Practice, and Power: Court-Ordered Cesarean Sections. *Medical Anthropology Quarterly* 1(3):319-334.
- Jacobus, M., E.F. Keller and S. Shuttleworth, eds.
 - 1990 *Body Politics: Women and the Discourses of Science*. New York: Routledge, Chapman and Hall, Inc.
- Jenison, S.A., X.P. Yu, J.M. Valentine, L.A. Koutsky, A.E. Christiansen, A.M. Beckmann, and D.A. Galloway

- 1990 Evidence of Prevalent Genital-Type Human Papillomavirus Infections in Adults and Children. *Journal of Infectious Diseases* 162:60-69.
- Kaufert, P.A. and J. O'Neil
- 1993 Analysis of a Dialogue on Risks in Childbirth: Clinicians, Epidemiologists, and Inuit Women. In *Knowledge, Power, and Practice: The Anthropology of Medicine and Everyday Life*. S. Lindenbaum and M. Lock, eds. Pp. 32-54. Berkeley: University of California Press.
- Kuipers, J.
- 1989 "Medical Discourse" in Anthropological Context: Views of Language and Power. *Medical Anthropology Quarterly* 3(2):99-123.
- LeVine, S.
- 1993 *Dolor y Alegria: Women and Social Change in Urban Mexico*. Madison: University of Wisconsin Press.
- Lock, M. and S. Lindenbaum, eds.
- 1993 *Knowledge, Power & Practice: The Anthropology of Medicine and Everyday Life*. Berkeley: University of California Press.
- Lock, M. and D.R. Gordon, eds.
- 1988 *Biomedicine Examined*. Boston: Kluwer Academic Publishers.
- Martin, E.
- 1987 *The Woman in the Body: A Cultural Analysis of Reproduction*. Boston: Beacon Press.
- McMullin, J.M., L.R. Chavez, and F.A. Hubbell
- 1995 Knowledge, Power and Experience: Variation in Physicians' Perceptions of Breast Cancer Risk Factors. *Medical Anthropology* 16:295-317.
- McNeil, C.
- 1996 Consensus Panel on Cervical Cancer Highlights the HPV Connection. *Journal of the National Cancer Institute* 88:575.
- Mirandé, A. and E. Enríquez
- 1979 *La Chicana: The Mexican-American Woman*. Chicago: The University of Chicago Press.
- Morris, D.L.B., G.T. Lusero, E.V. Joyce, E.V. Hannigan and E.R. Tucker
- 1989 Cervical Cancer, A Major Killer Of Hispanic Women: Implications for Health Education. *Health Education* 20:23-28.
- Muir, C., J. Waterhouse, T. Mack, J. Powell, S. Whelan, eds.
- 1987 *Cancer Incidence in Five Continents*. Vol. 5. Publ. no. 88. Lyon, France: International Agency for Research on Cancer.
- Parazzini, F., A. Hildesheim, M. Ferraroni, C. La Vecchia, and L.A. Brinton
- 1990 Relative and Attributable Risk for Cervical Cancer: A Comparative Study in the United States and Italy. *International Journal of Epidemiology* 19(3):539-545.
- Pastorek, J.G. II
- 1992 Sexually Transmitted Diseases: Should Physicians More Strongly Advocate Abstinence and Monogamy? *Postgraduate Medicine* 91(5):297-302.
- Paz, O.
- 1961 *The Labyrinth of Solitude*. Translated by Lysander Kemp. New York: Grove.
- Peña, M.
- 1991 Class, Gender and Machismo: The 'Treacherous-Woman' Folklore of Mexican Male Workers. *Gender & Society* 5:30-46.
- Perez-Stable, E.J., F. Sabogal, R. Otero-Sabogal, R.A. Hiatt, and S.J. McPhee
- 1992 Misconceptions about cancer among Latinos and Anglos. *Journal of the American Medical Association* 268:3219-23.
- Posner, T.
- 1991 What's in a smear? Cervical Screening, Medical Signs and Metaphors. *Science as Culture* 2(11):166-187.
- Posner, T. and M. Vessey
- 1988 *Prevention of Cervical Cancer: The Patient's View*. London: King's Fund Publishing Office.
- Roth, J.S.
- 1985 *All About Cancer*. Philadelphia: George F. Stickly Co.
- Rothman, B.K.

- 1984 Women, Health, and Medicine. *In* Women: A Feminist Perspective. J. Freeman, ed. Pp. 70–80. Palo Alto, CA: Mayfield Publishing Co.
- Ryan, M. and A. Gordon
- 1994 Body Politics: Disease, Desire, and the Family. Boulder, CO: Westview Press.
- Stein, H.F.
- 1988 American Medicine as Culture. Boulder: Westview Press.
- Sturma, M.
- 1988 Public Health and Sexual Morality: Venereal Disease in World War II Australia. *Signs* 13(4):725–740.
- Tesh, S.N.
- 1988 Hidden Arguments: Political Ideology and Disease Prevention Policy. New Brunswick: Rutgers University Press.
- Trapido, E.J., R.B. Valdez, J.L. Obeso, N. Strickman-Stein, A. Rotger, and E.J. Pérez-Stable
- 1995 Epidemiology of Cancer Among Hispanics in the United States. *Journal of the National Cancer Institute Monographs* No. 18:17–28.
- Turner, B.S.
- 1984 The Body and Society. New York: Basil Blackwell.
- 1987 Medical Power and Social Knowledge. Beverly Hills, CA: Sage Publications.
- 1992 Regulating Bodies. New York: Routledge.
- U. S. Bureau of the Census
- 1989 Census Bureau Press Release, CB 89–158. Washington, DC: U.S. Department of Commerce.
- 1990 Foreign Born Population by Place of Birth for the U.S., CPH-L-90. Washington, DC: U.S. Department of Commerce.
- 1991a Census Bureau Press Release, CB91–215. Washington, DC: U.S. Department of Commerce.
- 1991b Race and Hispanic Origin, 1990 Census Profile. Washington, DC: U.S. Department of Commerce.
- Vaughn, M.
- 1991 Curing Their Ills: Colonial Power and African Illness. Stanford: Stanford University Press.
- Weller, S. and A.K. Romney
- 1988 Systematic Data Collection. Newbury Park: Sage Publications.
- Wright, P.W.G.
- 1988 Babyhood: The Social Construction of Infant Care as a Medical Problem in England in the Years Around 1900. *In* Biomedicine Examined. Margaret Lock and Deborah R. Gordon, eds. Pp. 299–329. Boston: Kluwer Academic Publishers.
- Zambrana, R.E., ed.
- 1995 Understanding Latino Families. Thousand Oaks, CA: Sage Publications.
- Zavella, P.
- 1987 Women's Work and Chicano Families: Cannery Workers of the Santa Clara Valley. Ithaca, NY: Cornell University Press.
- Zinn, M.B.
- 1995 Social Science Theorizing for Latino Families. *In* Understanding Latino Families. R.E. Zambrana, ed. Pp.177–189. Thousand Oaks, CA: Sage Publications.