Published in final edited form as:
AIDS Educ Prev. 2009 October ; 21(5): 415–429. doi:10.1521/aeap.2009.21.5.415.

Sociocultural Contexts and Communication About Sex in China: Informing HIV/STD Prevention Programs

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Abstract

HIV may be particularly stigmatizing in Asia because of its association with “taboo” topics, including sex, drugs, homosexuality, and death (Aoki, Ngin, Mo, & Ja, 1989). These cultural schemata expose salient boundaries and moral implications for sexual communication (Chin, 1999, *Social Science and Medicine, 49*, 241-251). Yet HIV/STD prevention efforts are frequently conducted in the public realm. Education strategies often involve conversations with health “experts” about condom use, safe sex, and partner communication. The gap between the public context of intervention efforts and the private and norm-bound nature of sex conversation is particularly challenging. Interviews with 32 market workers in eastern China focused on knowledge, beliefs, and values surrounding sexual practices, meanings, and communication. Sex-talk taboos, information seeking, vulnerability, partner communication, and cultural change emerged as central to understanding intervention information flow and each theme's relative influence is described. Findings illustrate the nature of how sexual communication schemata in Chinese contexts impact the effectiveness of sexual health message communication.

Background

The rate of HIV infection in China has been rapidly rising during the past decade (Wu, Rou, & Cui, 2004). Between 1995 and 2000, HIV infections increased 30% per year. However, in 2001 the increase was 58%, and in 2003 rates rose 122% (Chinese Center for Disease Control and Prevention, 2004). Thus, the Chinese epidemic is considered to be at the “rapid expansion phase” (Wu et al., 2004, p. 7). The vectors of the epidemic are threefold: injection drug use, sexual transmission to partners of intravenous drug users and their infants, and blood plasma donation (Wu et al., 2004). Furthermore, rising rates of sexually transmitted diseases (STDs) observed in China over the last decade raise additional concerns about a more rapid spread of HIV given STD infected or previously infected persons are at greater risk of HIV than those without disease (Detels et al., 2003). In response to these concerns

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about sexual activity conferring risk for HIV infection, one avenue of prevention focuses on education about condom use and effective sexual negotiation.

Although it is clear that education about sexual risk and disease prevention is necessary to stem the HIV epidemic in China, the cultural schema defining the meaning of public discussion about sex presents serious challenges to the very mechanisms by which such education occurs. Cultural schemata are cognitive representations of phenomena intersubjectively shared by a social group. A sense of "obviousness" and acceptance of facts that "everyone" in the group is presumed to share indicates the existence of cultural schemata (D'Andrade, 1987, 1991). The schema that public discussion of sex is "taboo," or at least inappropriate, in most social contexts appears to be pervasive in Chinese culture (Aoki, Ngin, Mo, & Ja, 1989; Chin, 1999). Thus, cultural schema may effectively prohibit the success of any HIV intervention that requires public discourse about sexual practices.

Modernizing Society

Despite rapid evolution, the Chinese sociocultural context continues to be influenced by Confucian and Taoist philosophies that emphasize the procreation and social order aspects of sexuality (Ruan & Matsumura, 1991). However, increases have been found in attitudes toward views of sexual activity as private and in the tolerance of premarital and extramarital sex (Grusky, Liu, & Johnston, 2002; Liu et al., 1998; Zhang, Li, Li, & Beck, 1999). This change in tolerance is particularly rapid among college-aged youth because of their access to and consumption of media and other resources that expose them to the world outside traditional Chinese culture (Zhang, Gao, Dong, Tan, & Wu, 2002). The dangers of STD risk inherent in an environment characterized by the dominance of traditional values and expectations, relative absence of reliable and trustworthy information about sexual health, and unstructured and unmonitored exposure to information from outside sources are clear (Gao, Lu, Shr, Sun, & Cai, 2001). For example, Zhang et al. (2004) reported that Chinese college students perceive little vulnerability to STD infection in their view of "drug users, prostitutes, the migrant population and other members of the 'outside world' as vulnerable, not themselves" (p. 111). Further, they report that inadequate amounts of information about sexual health and risky sexual behavior are communicated to them by parents or relatives and nearly 50% hold erroneous beliefs about HIV transmission. Although students in this study reported that "pre-marital sexual activity was depicted as an infraction against traditional Chinese culture" (Zhang et al., 2004, p. 110), 61% reported a desire for a romantic relationship during their college years and 76% the belief that a sexual relationship is good for mental and physical health. It is alarming that even the relatively educated members of Chinese youth continue to be faced with the contradictory pressures of traditional beliefs, values, and practices regarding the transmission of information about sexual health coupled with an increasing cultural tolerance for pre-marital sex and explicit interests in the exploration of romantic relationships. Sexual health risk is further exacerbated by the lack of reliable information and the faulty beliefs held regarding STD infection. If this is the case among relatively educated members of Chinese society, the risks are certainly greater for the less educated.

Knowledge and Behavior—Current research examining sexual health knowledge and behavior in China continues to find a insufficient levels of knowledge, inconsistent condom use, and increasing sexual activity among Chinese youth ("Candid Sex Talk," 2004; "China Targets Adolescent Health," 2003; Choi, Xiwen, Shuquan, Yiee, & Mandel, 2000; Lau, Tang, Siah, & Tsui, 2002; Lau, Tsui, Siah, & Zhang, 2002; Liu et al., 1998; Wu et al., 1997). Findings such as these within a period of increasing cultural openness and mobility suggest an increased vulnerability to STD and HIV infection. This body of research has also demonstrated that sexual risk decreases as knowledge increases. Accordingly, government

officials have called for broader implementation of education programs (“Candid Sex Talk,” 2004; “China Targets Adolescent Health,” 2003; “Chinese Parents Urged to Talk,” 2002). However, it is not clear that these programs are making a genuine impact on at-risk populations. Among available sources of support, the most frequently accessed appear to be those delivered via less conventional and non-confrontational resources (e.g., telephone hotlines, Internet web-sites). These resources, by their very nature, provide some level of privacy and anonymity that is thus consistent with the cultural schema inhibiting open sexual discussion. Even so, these services are generally under-utilized and, as relatively unregulated, there is a danger the information provided through these mechanisms may not be reliable.

Communication as an Obstacle

The primary obstacle to the dissemination of sexual health information appears to be based in traditional sociocultural beliefs regarding “sex-talk taboos.” In addition to the research-based evidence suggesting such a taboo, contemporary news reports commonly include stories about parent's unwillingness to discuss sex with their children, the embarrassment experienced by teachers and students whenever sex is discussed in a classroom, and the “bad taste” being exhibited whenever a person mentions sex (“China Targets Adolescent Health,” 2003; “Chinese Parents Urged to Talk,” 2002; “Do We Keep It in the Bedroom?” 2004; “Sex in Traditional Chinese Culture,” 2004). Among Asian American populations, discussing sex openly is tantamount to “airing private laundry” and communication about sex is thought to be especially uncomfortable with members of one's family—particularly with parents or older relatives (Chin, 1999).

Study Goals

This study examines the tension between cultural schemata prohibiting public discussion of sex and HIV psychoeducational intervention in China. Figure 1 illustrates the notion that typical education intervention must deliver health messages within the relevant social context toward influencing health behavior. Features of the social context act as a “filter” through which the intervention content and strategy are received and we focus here on how cultural schemata may interact with or mediate elements of the intervention in ways that impact effectiveness. Understanding the nature of such “filters” and characteristics of the target population will allow for more effectively designed intervention.

The target population of this study consists of lesser educated rural-to-urban and local market workers in Fuzhou, China. Participants provided qualitative data in face-to-face interviews about sex communication. Many interventions are designed to influence sexual communication in ways that will increase sexual health knowledge and condom use and decrease sexual risk behavior. We hypothesize that sex-talk taboos continue to present important challenges to the strategies of these interventions. Investigating the cultural norms in this sample regarding public discussion of sex, we learn more about how these norms may affect the effectiveness of intervention programs targeting sexual communication. Finally, we consider whether HIV interventions intending to reduce sexual risk can be better adapted when implemented in particular cultural contexts. Enhancing the “fit” between intervention strategy and dominant features of the cultural context will increase program effectiveness. Thus, findings here will inform the development of more culturally appropriate strategies to transmit sexual health information through the understanding of participants' attitudes and behaviors regarding sexual communication. Do sexual communication schema remain critical obstacles in the dissemination of sexual health information among this population? If so, the findings must be organized and interpreted in ways that inform intervention design and strategy toward overcoming these obstacles.

Methods

Participants

Sixty individuals in Fuzhou, an urban center in eastern China, were recruited for participation. These individuals represent a subset of the population under study in an intervention project focused on the prevention of HIV/STD transmission and include approximately 75% rural-to-urban migrant and approximately 25% locally born market workers, all of Han ethnicity (Detels et al., 2003). All participants work as vendors in the markets where local community members commonly shop for daily living needs (e.g., fresh meat, vegetables, fruits, household supplies). Each market has between 50 and 150 stalls in a warehouse-like building and approximately 150 to 300 workers are present at any one time during working hours. Most workers live and socialize in close proximity to the market at which they work. Market stalls within each market and one individual from each stall were randomly selected for recruitment. Table 1 presents the demographics of the study participants.

Instrument

Data were collected via face-to-face semistructured interviews. Interviews were carried out by members of a trained fieldwork team in a private one-on-one setting with each participant. The fieldwork team consisted of three female employees of the Fujian Health Education Institute; which served as the project base. These women were selected based on their promise as effective, poised, and professional interviewers. Training included a thorough orientation to the study and scientific methods and standards, familiarization with interviewing techniques, interactive modeling sessions by professional academic researchers, role-play, and a number of monitored pilot interviews with follow-up feedback and debriefing. Further, each interviewer was occasionally monitored while in the field by research staff to assure the maintenance of interview quality and professional behavior.

The full interview protocol was designed to gather information across a variety of topics meaningful to the larger project from which these data are drawn. These topics included: sexual health, sexual practices and meanings, health care beliefs, social networks, and potential prevention messages. For the present study, responses to three key questions surrounding sexual practices and meanings were analyzed: dominant sexual practices, barriers and facilitators of condom use, and sexual communication and negotiation. Particularly given the sensitive content to be collected in this study, the interview delivery strategy was designed to encourage as much conversational comfort and trust as possible. As such, fieldworkers were trained to be flexible in their choice of language and phrasing depending on the participant characteristics and the nature of each interview (e.g., sex, age, candor, comfort level, language skill). Training included practice with alternative probes for each question and extensive role-play activities to assure interviewer confidence and interview quality. Fieldworkers were given wide discretion as they worked to maximize the value of information obtained from each interview. That is, depending on the reaction of the participant, they were instructed to probe more deeply in certain areas—where a participant was willing and knowledgeable—or to withdraw from certain areas of questioning—where a participant appeared particularly uncomfortable or restrained, rather than strictly include the full set of questions in each interview. This ethnographic approach places a premium value on the deeper levels of content available in some interviews with less concern for assuring complete responses for all questions from every participant.

Procedures

Research staff recruited participants based on a stratified random sampling model to assure representation of individuals from a range of sex, age, and marital status. The study was

introduced as part of an effort to learn about and improve the health of the community. Potential participants received documentation explaining the details of participation that met the U.S. university standards for volunteer informed consent procedures. The information was reviewed orally to assure a full understand of consent to participate. Interviews took place in either a local health education institute (the base of study activities) or, if more convenient for the participant, in private rooms at the participant's workplace. The interviews took between 30 and 90 minutes to complete and participants were compensated in accordance with an hourly wage in China. Interviews were audiotaped and the interviewer made notes about the setting and any commentary on the nature of the interview and degree of interviewee responsiveness.

Data Processing/Management

All interview audiotape transcriptions and interviewer fieldnotes were translated to English for processing and analysis. Of three contracted translators, preliminary evaluations showed one's work to be of unacceptable quality. This contractor received no further work and one of the other two, showing acceptable quality, translated the remaining transcripts. Bilingual staff made periodic checks on quality throughout the transcript and translation processing. Overall, project staff examined approximately 25% of the translations to ensure content fidelity.

The UCLA EthnoNotes system (Lieber, Weisner, & Presley, 2003), a tool for the management, integration, and analysis of quantitative and qualitative data, was employed to organize, interpret, and analyze the interview and fieldnote content. Staff fluent in English and either Mandarin and/or the local Fuzhou Chinese dialect worked together to develop a coding system to apply to these data. First, broad categories of content related to either “perceptions of stigmatization” or “health-seeking behavior” were developed and applied to interview excerpts. A second, more specific set of codes for content related to issues of fear, embarrassment, shame, isolation, and exposure were then developed and applied. In the process of validating the coding system, at least two members of the team independently rated approximately 20% of the interviews. Acceptable levels of interrater agreement were achieved before the remaining interviews were coded (i.e., average Cohen's Kappa statistic for interrater reliability of .75 and ranging from .64 to .79). At least one of the trained team members subsequently coded the remaining cases with occasional checks by research team leaders to ensure coders maintained acceptable levels of reliability.

Results

Five major themes relevant to the study questions were identified in excerpts with content related to one of the codes described above: (a) sex talk taboos, (b) information, (c) vulnerability and condom function beliefs, (d) communication between partners, and (e) cultural change. We found that 32 of the 60 participants spontaneously provided data including content relevant to informing at least one of the themes identified and analyzed here. Analyses comparing these 32 participants to those not providing any content related to the themes examined in this study showed no significant differences for any demographic characteristic: respondent sex, age, origin, education, marital status, or time living/working in Fuzhou. Percentages reported in this articles results and discussion refer to the 32-person subsample providing useful data. With respect to the complexity of relations across the key themes, the themes are first presented individually to enhance clarity before considering their interactions and implications for communication toward positive impacts on sex health and behavior.

Sex-Talk Taboos

> In ancient times in China, people used to say that when people heard talk about tigers their faces turned pale. In fact, ancient people's faces turned pale when they hear talk about sex because of the traditional custom. Chinese people usually don't like to talk about sex—not to mention talking about sex with someone of the opposite sex. (20-29-year-old unmarried high school-educated male)

Seventy-five percent of the sample provided statements indicating that talking about sex is taboo, private, shameful, and/or discouraged in this China community. All clearly referenced common beliefs that people “should not” be discussing sexual topics, thus indicating a prohibitive cultural schema. As noted in the above quote, discomfort in talking about sex, and associated discouragement of such talk, is a traditional feature of Chinese society that remains fundamental to the contemporary lives of this population. The percentage of participants spontaneously discussing this issue is also striking. While the interview did not systematically inquire about “taboo” issues, the results suggest that views of sex talk as private or shameful are pervasive and salient. These views were identified in a variety of forms and discussed in many contexts. That is, these views were observed in interviewee behavior (e.g., reluctance or refusal to comment on particular topics, face reddening, averting eyes from interviewer) and directly discussed as relevant to experiences with friends, family, workplace, and participating in the interview itself. In reference to an interview with a middle-school-educated male, one interviewer described the difficulty of getting participants to talk about sex at all, “I know he was talking about sex by referring to ‘that thing,’ so I asked for more detail. He still kept humming and avoiding using the word ‘sex.’ He was typical of the market people in this respect.” Another 30-39 year-old male specifically asked the interviewer to stop talking about sex with him. As to the prevalence of sexual conversation, he said, “We villagers don't talk about it, nor hear others do so … It is personal privacy” (30-39-year-old middle school-educated male). One 30-39-year-old primary school-educated female mentioned, “nobody around me in the market talks about condoms. They would be embarrassed to talk about it. The only people who would talk about this would be prostitutes.” Another stated, “None of my relatives would talk about such topics … country people are conservative and they might revolt about such conversation, they would feel uncomfortable and embarrassed” (20-29-year-old middle school-educated female). Further, in reference to discussion about sexual health, “My husband and I don't talk about it and I've never heard my village folk talk about it either” (20-29-year-old middle school-educated female). Thus in broad terms, all indications from these data are that sex talk taboos continue to exist in this Chinese sociocultural context.

Information

> When my physiological changes came along, I thought it was natural and I did not tell others. I had not heard others talk about these changes and in our rural area, there is nothing about sex taught in school so people know little about it. I think people around 20 usually begin to fall in love and have their first sex practice after their marriage … I was in courtship at about 21. We did not talk about sex. No one told us and we did not know about sex. I did not tell my parents about my boyfriend and as our wedding date approached we began physical contact. After marriage, we had our first sex [intercourse] experience.” (20-29-year-old primary school-educated female)

Sixty-six percent of the participants commented about a desire and unmet need for sources of sexual health or behavior information. As illustrated in the quote above, many young people report that it would be inappropriate or uncomfortable to ask for information about sexual health and development, that the schools do not provide such education and, as such, much of what people learn and act upon is acquired by chance or speculation about what is

"natural." These data point to two meaningful issues regarding the availability and reliability of information about sexual health. First, many individuals reported seeking information about sex.

> Sometimes when we went swimming we might play with xiao ji ji [colloquial term for genitals]. I wanted to have a book to read about this but could not find one and dared not ask my parents. As for knowledge about sex, I learned from newspapers, books, magazines, pictures of the human body, and older people's chatting. When we played outside, they would express themselves in coarse language in jokes" (30-39-year-old male with some college education).

With regard to condom use, the following comments were made:

> As far as how to put on a condom, this knowledge is not found in books and no one talked to me about it (20-29-year-old high school-educated male)

> After she [wife] gave birth she had a sterilization operation. Afterward we were free from worry about pregnancy and there was no need to take contraceptive measures. As for condoms, I only know a little from TV and some books; I've never seen or bought one." (20-29-year-old middle school-educated male).

> STD information should be added to school curriculum to be imparted to the teenagers in systematic ways … special bulletin boards should also be set up in communities. (20-29-year-old high school-educated female)

Second, questions arose as to whether the sources accessed by individuals provide reliable and complete information.

> To educated people, newspapers and pamphlets are suitable. To lower educated people, whatever methods are suitable if they can understand. (30-39-year-old middle school-educated male)

> My husband likes to read books and when he finished reading he would tell me about it. I could not understand the books well by myself. (20-29-year-old primary school-educated female)

These comments begin to reveal the complexity of how the key issues presented here interact. Seeking to satisfy the desire for information is incompatible with experience of shame in talking about sex or publicly seeking information about sex. These issues are further complicated by a reliance on chance or anonymous sources of information and a lack of quality information being imparted through typical school curriculum or by family planning counseling. The interest and need for reliable information seems clear in many of these comments, but individuals are not aware of any systematic delivery that is available to them.

Vulnerability and Condom Function Beliefs

> Among my companions we usually talk about life's little things like what is nutritious to eat or what medicine to take for some minor disease. We don't talk about STD or AIDS because no one among us has such a disease. We also don't talk about contraceptive pills because we have all been married and given birth. So, we are all looped [use IUDs] or had [tubal ligation]; we don't use condoms. Only the unmarried use condoms. (20-29-year-old high school-educated female)

Beliefs related to participants' openness to information about sexual health and behavior and its impact on them personally fell into two main categories. Fifty-six percent of the sample discussed beliefs about their perceived vulnerability to disease. Another overlapping 34% (63% combined) discussed beliefs about contraception as the primary function of condoms.

The quote above reflects both of these beliefs, illustrating common notions that because “none of us” engages in risky behavior vulnerability is low, and so long at some contraceptive action has been taken, condoms are not necessary for married people. “People in our community use tubal ligation or IUD, it isn't necessary to use condoms,” said a 20-29-year-old high school-educated male. These beliefs are pervasive among the study participants and conversation about condom use is frequently associated with the immoral risks of sex workers and their clientele.

> Nobody in the market talks about condoms. They feel embarrassed about it. Only those who visit prostitutes would talk about condoms. (30-39-year-old primary school-educated female)

> Only those social people [those with money and who visited brothels] are vulnerable to such diseases, ordinary people will not contract STDs. I've heard some people in the market go to *chi ji* [colloquial term for visiting a prostitute] … but the prostitutes are afraid of becoming pregnant so they will take contraceptive medicine themselves. (30-39-year-old primary school-educated male)

Referring to a friend's behavior, one 20-29-year-old high school-educated male stated, “He said that if I'm going there [a brothel] I won't use a condom because I would use preventive medicine beforehand [referring to topical creams believed to prevent STDs].” These beliefs and attitudes have important implications for people's receptiveness to new information about sexual health and behavior. There are clear indications of the population's feelings of invulnerability to disease because they do not have contact with sex workers and the immorality of those who do. Other uses for condoms are seen specific to contraception and not necessary for those preventing pregnancy in other ways. These expressed beliefs appear strongly entrenched in the sociocultural context and must be seen as key obstacles to activating any rethinking about the population's sex behavior.

Communication Between Partners

> We got engaged after about 4 months and since my fiancée stayed with her family, which was very far away, I only visited with her occasionally. When we talked, we only talked about my business, nothing else, we were both very shy. We were too ashamed to talk about private matters; intimate behaviors like kissing and cuddling never occurred to us—talking about sex was out of the question … Since living together, we still seldom talk about private things, nor do we share feelings about our sexual life. When it comes to sex, we don't make any preparations—when I wanted it, she needed it too.” (20-29-year-old middle school-educated male)

Although only 19% of the sample mentioned partner communication issues or sexual behavior, these data are critical to understanding how to introduce information about safer sex behaviors toward stimulating positive change. Consistent with the maintenance of traditional views on sex talk taboos found in this Chinese population, there appears a consistent relative lack of communication among sex partners. Some express that communication about sex is not necessary.

> We seldom talk about sex, but we tell each other how we are satisfied with our sexual life. (30-39 male with some college education).

> During the period of courtship, he did his business in Lianjiang and we seldom stayed together. When we were together we did not talk about sex. No one told us about it and we didn't know about sex … We did not make any preparations before we had sex for we did not think any was necessary. We hadn't had any communication about sex between us. I don't know if other couples talk about sex or not. (20-29-year-old primary school-educated female)

For others, there is concern that communication about sex might be stressful.

> We are hard working people and don't have much chance to talk about health and illness. Besides, I'm hot-tempered and my husband is hot-tempered too. Too much talk would end in a quarrel so we try to talk as little as possible. (30-39-year-old primary school-educated female)

> I think as a wife you should obey your husband and try to meet his sexual demand. It would be wrong to refuse him for no reason, but I would if I didn't feel well or was unhappy … If his sexual desire wasn't met at home, he would be more likely to look for women outside the home. (30-39-year-old female)

The reported absence of consistent communication between partners about their sex life and apparent maintenance of beliefs about women's subservience within a marriage together present additional challenges to the development of strategies for effective intervention.

Cultural Change

> Most places in China aren't the same anymore. After all, too many things have been introduced to China from abroad. As I remember from my childhood, shots of kisses and cuddles on TV or in the movies were very rare. Now there are much more serious things, the whole upper body is naked. To the Chinese, this is foreigner trash. In the past, there was little kissing or cuddling in the street, but now is it quite common.” (20-29-year-old high school-educated male)

Thirty-four percent of the sample provided excerpts related to issues of culture change. The content of these excerpts included beliefs and concerns about how modernization and increases of sex in the media has generally negative impacts on society. “Society is quite a mess now, which has led people to disease and caused discord in the family, said a 30-39-year-old middle school-educated male). More specifically, are concerns about a more a more visible sex trade industry and tolerance toward premarital sex.

> While in college, one is considered “sharp” [cool] if you talk about sex or have sexual experiences—so capable if one can have lots of girls … In the 1980s promiscuity was negligible, but things changed a lot in the 1990s and tend toward liberalism. No one talks about or intervenes in others' private affairs, but I was curious. (30-39 male with some college education).

> I don't feel guilty about my premarital sex. Everything felt normal when we came together and had the feeling of love. From the beginning we were like old husband and wife. (30-39-year-old primary school-educated female).

> Now you can hardly bring the sex trade under control. This bunch gets in trouble, that bunch appears, this bunch dies out, that bunch grows up. (30-39-year-old high school-educated male).

These excerpts suggest a variety of perspectives on contemporary change related to sex in Chinese society. There are indications of increases in premarital sex and corresponding increases in tolerance of this behavior and comfort with condom use, particularly among the younger groups. At the same time, there is a discomfort or disgust about changes in media sex content and increase in public displays of affection. Thus, cultural change is apparent, but it is yet to be seen how the different forces of this change will interact to balance views on acceptable behavior, moral values in the society, and societal controls on the media and sex trade.

Demographic Variations in Reported Beliefs

Following our identification and description of the major themes emerging from these data, we sought to investigate whether there was any systematic association between spontaneous reports of these themes and various demographic characteristics. Two demographic characteristics showed significant relations to one or more of the themes identified here: participant level of education and gender. Figure 2 illustrates a comparison of the percentage of relevant reports for each emergent theme by participant education. Two groups defined participants' level of education: those that had completed high school and those who reported either a primary or middle school education. Though not significant at the standard .05 level, there is an observable trend suggesting that those with less education provide more spontaneous reports of desire for information than those with more education. A statistically significant difference was found between the higher and lower educated groups in the percentage of participants providing spontaneous reports of cultural change, $\chi^2(1, \underline{N} = 29) = 5.57$, $\underline{p} < .05$.

Similarly, Figure 3 illustrates a comparison of the percentage of reports of each emergent theme by participant gender. Overall, male and female participants spontaneously provided relatively equal numbers of excerpts coded as relevant to the themes analyzed here. However, significantly greater numbers of males provided comments related to sex-talk taboos, $\chi^2(1, \underline{N} = 32) = 5.55$, $\underline{p} < .05$; faulty beliefs, including beliefs about condoms as primarily contraceptives (limited utility) and perceptions of invulnerability, $\chi^2(1, \underline{N} = 32) = 6.96$, $\underline{p} < .01$; and cultural change, $\chi^2(1, \underline{N} = 32) = 9.37$, $\underline{p} < .01$. As an alternative perspective on the data from those which characterize the general aspects of the social context, these analyses provide more specific information about variation in demographic groups across these sociocultural themes. These findings offer a more thorough appreciation of variation in the target population across contextual features and inform the adjustment of intervention content and strategy to enhance the potential breadth of intervention impact.

Discussion

Information-based intervention strategies are conceptualized here as the flow of information from “expert” health care providers and educators to target populations via some intervention modality. A basic assumption to such a strategy is that that the target will receive the expert information and prompt some desirable change. To the extent the intervention context is understood and taken into consideration in the design and delivery of health messages, the intervention efficacy can be maximized. That is, sociocultural beliefs, values, and practices exist that will influence the receptiveness of the target and likelihood of meaningful change. The findings here provide important information about the cultural context in which members of the target population carry out their daily lives. Awareness and understanding of these contextual characteristics can be drawn upon to “fit” interventions to the sociocultural schema that influence target population individuals' daily lives and routines. We found that for this Chinese population, sex-talk taboos, access to and quality of sexual health information, beliefs about vulnerability to STDs and use of condoms, communication between sex partners, and culture change are all meaningful to the sociocultural context in which sexual health information is disseminated. These characteristics can facilitate, obstruct, or be neutral to the flow of information from the intervention delivery to the target.

Figure 4 illustrates the possible enhancing or hindering influence that these features of the sociocultural context identified here have on the potential effectiveness of an information-based intervention. The desire for information serves to facilitate the desired outcome—denoted by the plus (+) sign; sex-talk taboos, faulty beliefs, and communication between partners hinder the desired outcome—denoted by the minus (-) sign; and cultural change has

both positive and negative effects on the desired outcome. Thus, maintained beliefs about sex-talk taboos, beliefs about invulnerability and limited views of condom use value beyond contraception, relatively poor communication between partners about sex, and aspects of cultural change will influence the effectiveness of health messages delivered in education-based intervention in such a Chinese context. At the same time, contemporary cultural changes also appear to involve change in premarital sex activity frequency, moral tolerance for pre-marital sex activity, and openness to the use of condoms. These changes, along with expressed desire and need for reliable information about sexual health, define aspects of the social context more likely to enhance the reception and effectiveness of sexual health messages. A key challenge that remains is how to capitalize on aspects of the social context that may facilitate the reception of information about sexual health and behavior and how to overcome any obstacles to the flow and reception of this information to the target population.

Our study findings offer an important perspective on the complexity of how these characteristics of the communication context can influence intervention effectiveness. For this contemporary Chinese population, premarital sex is increasingly common and, despite an expressed desire for sexual health information, knowledge and informational resources are poor and/or unreliable. Traditional Chinese prohibitions to openly discussing sexual behavior in the public domain further complicate access to such information. Although adequate for this qualitative investigation, the small sample size of this study sample would restrict broad generalizations of the findings. Further, study participants largely originate from rural and suburban communities and most have relatively low levels of education. Similar studies in larger Chinese urban settings and with samples from other education and socioeconomic backgrounds would be required to examine how widely those sociocultural characteristics found here to influence the communication of sexual health information extend to other Chinese contexts.

This study demonstrates that traditional features of the Chinese sociocultural context remain salient to the participant population and continue to present significant obstacles to the effective implementation of education-based HIV/STD prevention. The market workers' reports presented here reveal that despite an acknowledged modernization, traditional conservative beliefs and values about public sexual communication persist and seriously influence the candor and comfort with which Chinese people in this community communicate about sex behavior. On the other hand, reports of faulty beliefs and the desire for information indicate the importance of providing education-based intervention. Identifying and respecting the cultural belief systems dominant in the sociocultural context is as important to intervention design as a thorough evaluation of a target population's needs and characteristics. Our data expose and explicate how the salient cultural schemata in this Chinese sociocultural context prohibit public communication about sexual behavior and obstruct the potential impact of important health information often present in intervention efforts. We expect that the benefits of this study's approach, framework, and findings can be incorporated into future intervention design. Foresight, such as this, will serve to improve a program's effectiveness by enhancing the “fit” of the intervention to the target population. Increased perception of meaningfulness, and consequently the reception of sexual health information will boost the strength of impact and sustainability of positive change.

Acknowledgments

This work was generously supported by a grant from the National Institute of Mental Health (5 U01 MH061513) to Mary Jane Rotheram-Borus as part of the NIMH Collaborative HIV Prevention Trial Group.

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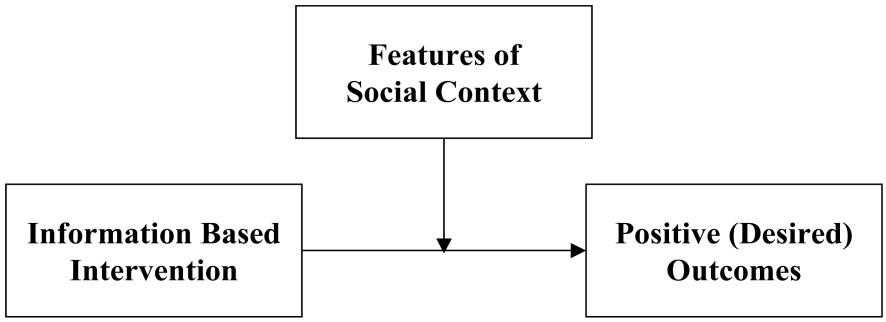

FIGURE 1.
Theoretical education intervention model.

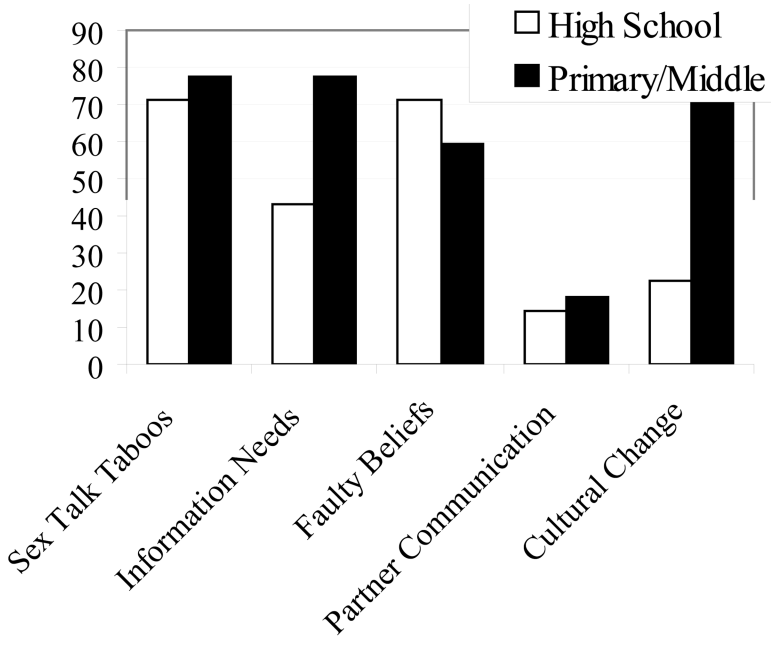

FIGURE 2.
Percentage of theme relevant statements by participant education.

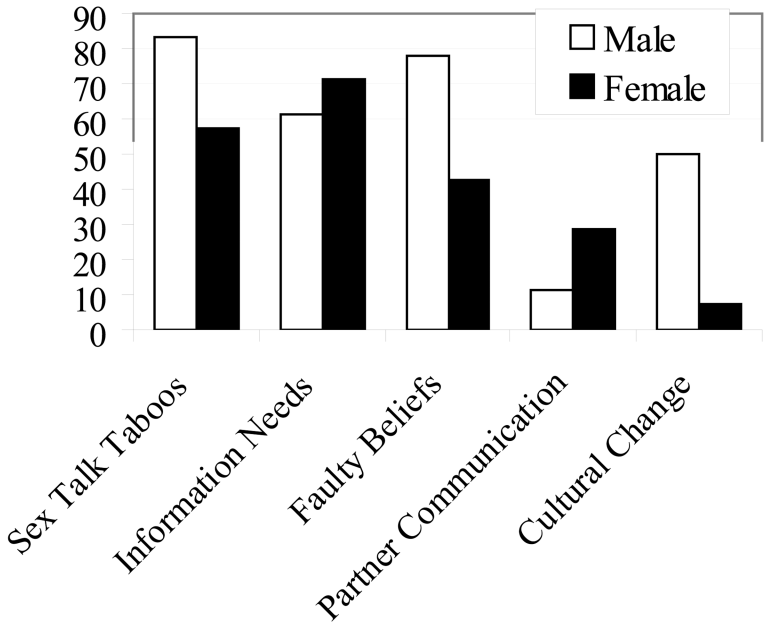

FIGURE 3.
Percentage of theme relevant statements by participant sex.

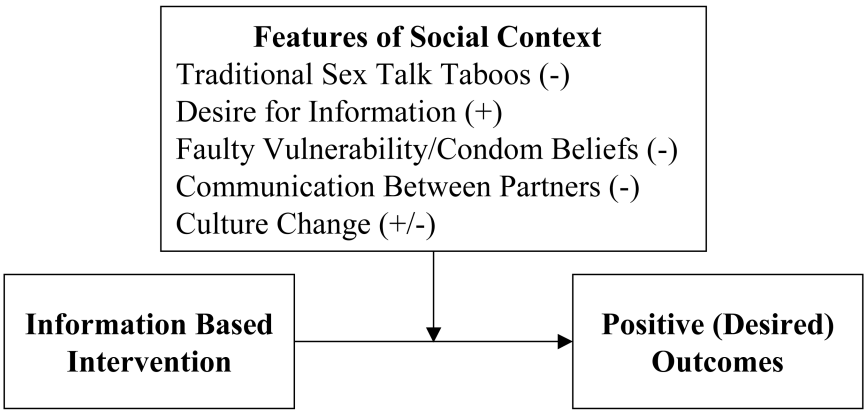

FIGURE 4.
Information-based intervention theoretical model with key social context features.

TABLE 1

Sample Demographics by Participant Sex

Characteristic	Males (*n* = 28)	Females (*n* = 32)
Age		
Under 20 years of age	4	0
20-29 years	12	23
30-39 years	10	8
40-49 years	2	0
Education		
Primary	6	10
Middle	16	12
High School	5	7
Some College or higher	1	0
Marital status		
Unmarried	11	7
Unmarried cohabitating	2	2
Married living with spouse	15	20
Divorced	0	2
Time living in Fuzhou		
Less than 1 year	3	0
1-2 years	4	8
3-4 years	4	3
More than 4 years	11	16

Note. Data for each section may not sum to 100% owing to missing data.