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Changes and Correlates in Multiple Sexual Partnerships among Chinese Adult Women—Population Based Surveys in 2000 and 2006

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Abstract

The sexual transmission of HIV and STI is becoming a major public health concern in China. However, studies on sexuality in China remain scant, particularly those that analyze female sexuality. This study is to investigate the prevalence of multiple sexual partnerships among adult women, and to examine trends and correlates for having more than one lifetime sexual partner.

Multiple sexual partnership (MSP), coded as having one or none vs. two or more lifetime sexual partners, was the key binary outcome measure. The data were from two national probability surveys on sexual behaviors in China carried out in 2000 and 2006. The sample size of adult women was 1899 in 2000 (total sample $n=3812$), and 2626 in 2006 ($n=5404$). Overall prevalence of MSP increased from 8.1% in 2000 to 29.6% in 2006 (Chi-square test, $sig.=0.000$). The most rapid changes took place among women with less education, those who worked in blue collar jobs and lower social status positions, and those living in rural areas or small towns. Women who were better educated, lived in big cities, and held management level occupations exhibited less change but had a higher baseline prevalence of MSP, suggesting that changes in MSP behavior may occur initially among women of higher socioeconomic status. Based on the 2006 dataset, significant positive correlates of MSP included more years of education, being in a long-term relationship, being middle aged, having a lower status job, going out dancing at entertainments venues, and being a state of overall health in the past 12 months.

The significant recent increase in MSP among women reinforces the need to examine China's sexual revolution in the context of a rapidly transitioning society. Findings regarding female sexuality also raise new questions to be explored in further sexuality studies, in order to better understand population sexual behaviors and to inform future HIV prevention efforts.

Keywords

Sexual behavior; Multiple sexual partnership; HIV/STI; China; Woman sexuality

Introduction

Over the last 30 years, Chinese society has undergone a sexual revolution in response to the economic, social and political transformations ushered in by the economic reforms of the late 1970s. This sexual revolution is evident in rapid changes in both prevalence of sexual behaviors and norms. (Pan, Parish, Wang & Laumann, 2004).

The modern discourse on sexuality in China originated in the early 20th century with the emergence of the medical study of sex (Dikotter, 1995), and since the 1990s, has gone on to explore a variety of topics, including prostitution (Hershatter, 1997) and its re-emergence in the reform era (Pan, 1999; Huang, Henderson, Pan & Cohen, 2004; Hyde, 2000; Zheng, 2008), homosexuality (Hinsch, 1992), the sociological impact of economic reforms on sexual norms (Farrer, 2000; Jefferys, 2002; McMillan, 2006; Pan, 2008), changing sexual behaviors (Pan et al., 2004; Parish, Laumann & Mojola, 2007), attitudes toward premarital and extramarital sex (Farrer & Sun, 2003; Pan et al., 2004), divorce (Tang & Parish, 2000), and the epidemic of sexually transmitted diseases (Parish, Laumann, Cohen et al., 2003). Only a few of these works focus on women's sexuality (Harriet, 1997; Li, 1994; Huang, 2008; Pei, Ho & Ng, 2007).

The emergence of a domestic HIV/AIDS epidemic prompted new research in China on sexual behaviors among at-risk populations. However the HIV-specific nature of these surveys and the lack of representativeness limits our ability to detect long term trends at the population level.

China's sexual revolution can be best understood by examining changes in the general population of women regarding attitudes toward sexuality and sexual behaviors. Such changes have profound impacts on sexual networks, gender relationships, and norms that determine mainstream sexual behaviors. In this sense the sexual revolution as experienced by Chinese women also has important implications for the control of sexual transmission of HIV and STI in China. This study takes advantage of a unique opportunity to examine women's sexual behaviors through comparison of results from two well-designed population based cross-sectional surveys, using interdisciplinary frameworks that contextualize both social and sexual environments and individual practices.

A key indicator of change in women's sexual behavior in contemporary China is female multiple sexual partnerships. The prevalence of women reporting multiple sexual partners is hypothesized to measure shifting values in sexual culture, as it challenges traditional notions of female virginity, marital fidelity, and female sexual desire. Analysis of changes in this indicator is based on two comparable population based surveys conducted in 2000 and 2006.

Materials and Methods

Samples

The China Health and Family Life Survey (CHFLS) of 2000 is a population based survey of sexual behavior in China, and provides baseline estimates of multiple sexual partnerships in adult women for this analysis. The 2006 Survey of Chinese People's Sexuality, replicated the CHFLS and is used in this study to assess changes in reported multiple sexual partnerships over the six year interval. Both surveys were designed and implemented by the Institute of Sexuality and Gender at Renmin (Peoples) University of China.

CHFLS was a national probability survey of the adult population of China aged 20 to 64 who were sampled from 60 primary sampling units with valid sample size of 3812 and a response rate of 76.4%. Sampling methods for the 2006 Survey on Sexuality were similar to the Health and Family Life Survey, (age range 18 to 61, 120 primary sampling units, 5404 valid sample size, and response rate 71.5%). The sample size of adult women was 1899 in 2000 and 2626 in 2006. The data in the CHFLS were weighted using population census data from 2000 and the Survey on Sexuality weighted using the 1% National Population Sample Survey carried out by the Chinese government in 2005. Table 1 compares the two surveys to demonstrate the comparability in terms of key variables and primary sampling units.

Participants who provided informed consent took part in an hour-long computer-based interview conducted by specially trained interviewers, under the supervision of the principal investigators. To ensure privacy, interviews took place outside the home of the respondent, typically in a private hotel room or a meeting facility. In order to reduce reporting bias, interviews were conducted on respondent-controlled computers with support from interview staff of the same gender to reduce discomfort. Basic demographic information was first inputted with direct assistance from the interviewer as a form of training for respondents who then answered more sensitive questions on their own. Interviewers remained in the room seated across from respondents for the duration of the survey to provide necessary assistance.

Measures

Multiple sexual partnerships (MSP)—To measure multiple sexual partnerships (MSP) respondents were asked, ‘How many sexual partners have you ever have in your lifetime.’ Answers were coded as ‘yes’ for those reporting two or more sexual partners in a lifetime and ‘no’ for one or none. (In the survey, we have asked several questions about their different sexual relationships, those who self reported having more than one type of sexual relationship were included in ‘yes’ to MSP.)

Demographic characteristics—These variables included age, monthly income, education (years), occupation, and marital status. We hypothesized that as a rapidly developing country, social stratification in China is a salient factor in detecting patterns of sexual behaviors among women.

Health status—Respondents provided self-assessments on their overall state of health as defined by general health, fatigue, irritability and emotional health. These measures were obtained by asking about respondents’ general state of health (‘healthy’ and ‘not healthy’); overall fatigue in the past three months (‘fatigued’ and ‘not fatigued’), unusual irritability in the past three months (‘irritable’ ‘no irritability’), and overall state of happiness over the last year (‘happy’ and ‘unhappy’).

Attitudes toward Sexual Behaviors—We assessed respondent’s attitudes towards sexual norms by asking their opinions of extra-marital sex: “Some say that not every instance of extramarital sex deserves punishment. Do you agree?” Those who answered ‘completely agree’ and ‘somewhat agree’ were grouped as having positive attitudes toward MSP; those answering ‘somewhat disagree’ and ‘completely disagree,’ were coded as having a negative attitude. This question was considered the closest proxy of respondents’ attitudes toward sexual norms related to MSP.

Several other questions assessed respondent’s social and health behaviors that might provide opportunities to meet potential sexual partners. Such behaviors included frequency of social outings to night clubs, frequency of receiving full body massage, and whether or not respondents took medicines or vitamins to enhance sexual health.

Statistical methods

SPSS 17.0 was used to first examine the prevalence of MSP in each dataset, then to assess significant differences between these prevalences in 2000 and 2006 using chi-square tests. Multivariable regression analysis was performed to estimate the odds ratios and their 95% confidence intervals (CIs) of factors associated with MSP among adult women in the 2006 dataset. Basic social-demographic characteristics and hypothesis driven factors were entered into the model. Political party affiliation (Communist party member or not), and permanent

residency status were controlled for in the model due to their significance as predictors of MSP (positively related) in a previous analysis of the 2000 dataset (Pan. et.al, 2004).

Results

Prevalence of multiple sexual partnerships among adult women in 2006 (Table 2)

Our main finding was that in 2006 approximately one third of sampled women aged 18–61 reported MSP in their life time (29.6%, n=2626). Among them, a greater proportion of middle aged women (30–49 years) reported MSP (35% for 30–39 and 37.7% for 40–49) than the youngest age groups (25.6% among women aged 18–29) or the oldest one (17.5% among women over 50).

Those cohabitating with a sexual partner at the time of interview reported the highest prevalence (48%), with the lowest prevalence of MSP reported by single women (16.5%) and divorced or widowed women (21.5%). MSP appeared to be more prevalent in groups with more years of education: among those with no schooling MSP prevalence was 18.4% and 32.9% among those who had college or higher level education. In terms of occupation, government officials had a comparatively low reported rate of MSP (18.8%); whereas a greater proportion of those working in white collar jobs reported MSP (39.1% for technical workers and teachers, and 37.5% for managerial staff). We found high prevalence but no significant differences among the five categories of residential status, which ranged from villages to urban centers (all around 30%).

Changes in prevalence of multiple sexual partnerships in 2000 and 2006 (Table 2)

We found significant differences in MSP prevalence between the 2000 and 2006 datasets. Overall prevalence of MSP increased from 8.1% in 2000 to 29.6% in 2006 (chi-square test sig.=0.000) after weighting to make the samples more nationally representative. Increases in reported MSP prevalence were most notable among young and middle aged women (26% for 30–39 age group and 33.6% for 40–49 age group), women cohabiting with their partner (30.5 PP), those who were married (24.7 PP) and those with more than a high school education (around 20 PP). The increase in MSP prevalence was also much greater among those with low and middle income occupations such as unemployed women, farming, sales, clerical work, and teacher/technician.

Factors associated with multiple sexual partnerships among adult Chinese women in 2006

The results of the logistic regression analysis are listed in Table 3. The most significant predictors of MSP ($p < 0.005$) were, age, marital status, experiencing irritability, and going out dancing.

Several demographic characteristics had a noteworthy association with MSP. Specifically, women in the 30–39 and 40–49 age groups were about twice as likely to report multiple sexual partnerships (OR=2.356, $p < 0.005$; OR=1.975, $p < 0.005$) as compared to women over 50, whereas women between 18–29 years were 1.5 times as the same referent group to report MSP (OR=1.518, $p < 0.05$). Education was also positively and significantly associated with MSP (OR=1.041, $P < 0.05$), and women in positions of unskilled labor (i.e. farming, factory work, services) and other lower income jobs (i.e. clerical work, technical work or self employed) were 3–5 times as likely to have multiple sexual partners as women in other occupations.

Being married or cohabitating with a primary sexual partner was also significantly associated with reported MSP ($p < 0.005$). Women cohabiting with their partner were nearly 3 times more likely to report MSP than those who were single (OR=3.751) whereas married

and remarried women had odds ratios of 3.399 and 2.607, respectively when compared to the same referent. ($p < 0.000$ for both). Divorced or widowed women also showed positive association with MSP though not as significant as the other groups.

Recent irritability was also significantly and positively associated with MSP (OR=1.416, $p = 0.001$), though feeling healthy was also positively but not as strongly associated with reporting MSP (OR=1.355, $p = 0.008$).

Other MSP associated behaviors included going out to dancing venues (OR=1.957, $p < 0.001$), doing frequent full body massage (OR=2.062, $p = 0.047$), and taking sexual enhancement medicines or nutrients (OR=1.393, $p < 0.05$). Participants who didn't have as negative opinion of extramarital sex were also more likely to have MSP, (OR=1.237, $p < 0.05$).

Discussion

Changes in prevalence of multiple sexual partnerships between 2000 and 2006 shows evidence of a sexual revolution among adult Chinese women

Comparisons of data across surveys of women in 2000 and 2006 showed significant differences in the reported prevalence of MSP among adult women in China. This may be evidence that female sexuality in China has undergone considerable change in recent years, and suggests that a sexual revolution is taking place among women (Pan, et al., 2004; Pan, 2006). Moreover, noticeable changes were evident across various social strata, age groups, and marital status.

The extent of change in reported MSP was consistently correlated with the education/occupation/residential group profile of the women. Whereas the change in reported MSP was negligible among highly educated urban women with white collar jobs, the change was most dramatic among less educated women living in rural areas and occupying lower income jobs. We believe the lack of change in the former group can be attributed to already high baseline prevalence, signaling that this group of women underwent an earlier sexual revolution than their counterparts. On the other hand we believe the significant change in MSP in the latter group is a sign that China's sexual revolution has extended beyond educated and urban women to reach China's general population.

The findings of this study are in sharp contrast with past research on female sexuality in China which reported markedly conservative sexual norms compared to those found in our study (Li, 1997; Pei et al., 2007; Liu, 1992). Though a few qualitative studies focused on a more open attitude and behaviors among younger white collars females in urban areas (Huang, 2008; Pei, 2007; Zhang, 2007), the results have not reached women of lower social status. Increased prevalence of MSP in Chinese women might be seen as a means of challenging China's traditional gender norms where separate standards of monogamy and fidelity have existed for women (Keith, 1995). The changes in Chinese female sexuality may also be a reflection of changes taking place in the more public spheres of women's lives including work and a broadening social sphere. These findings should spur additional research on changing gender norms in transitional societies.

Correlates of women's multiple sexual partnership

The results of the 2006 multivariable regression analysis revealed some novel traits of Chinese female sexuality. First, every additional year of education resulted in an 1.041 PP increase in the rate of MSP, suggesting that education—or the experience of attending institutes of higher education—may expose women to novel attitudes of sexual openness. This association may also be indirectly related to increased financial independence among

better educated women which affects the terms of sexual relations with men. Second, women who reported being in a long-term relationship at the time of interview were the most likely to report MSP, whereas single women reported the lowest prevalence of reported MSP. The reasons are surely complex, but one interpretation of these findings is that they represent a challenge to the traditional institution of marriage as a form of control over female sexuality. That is, in a more socially open society (Farrer, 2000) such changes in sexual partnering signal changes in traditional links between love, marriage and sexuality, and suggests a renegotiation of these relationships.

Regarding behaviors that are indirectly linked to sex such as going out dancing, getting full body massages, or taking medicines to improve sexual health, we found that all of these factors were significantly related to MSP. We attribute dancing as a possible indicator of being more socially outgoing and having more chances to meet potential sexual partners. Getting body massages and taking traditional medicine could be interpreted as a sign of mindfulness about one's physical health, desires for bodily touching and a well developed sense of sexuality. However, more in depth studies on the relationship between women's bodily practices and sexuality are needed to explore these findings. Finally women who reported worse overall health and greater fatigue in the last 12 months were less likely to report MSP than healthier and less fatigued respondents. Greater physical health may contribute to a more well-developed sense of sexuality and interest in experimentation with multiple sexual partners, or vice versa.

Socio-political change and sexuality in contemporary China

The sexual revolution among Chinese women has emerged out of shifting values surrounding marriage, love, family, reproduction and sexuality – the primary life cycle in Chinese society (Pan et al., 2004; Pan, 2006). These changes can be better understood within the context of contemporary family planning policies and the economic transitions in Chinese society since the 1970s.

Effects of 'One Child Policy' on Chinese female sexuality—The social consequences of the One-Child Policy implemented in 1980 have had profound impacts on Chinese women's sexuality. First, the policy's goals of population reduction inherently contradicted the Confucian philosophy that has dominated Chinese family life for generations, that is, 'sex for reproductive purposes.' By restricting reproduction itself, the policy created space for a new notion of 'sex for pleasure.' Second, the One-Child Policy greatly increased women's access to contraceptive measures including birth control pills, intrauterine devices, and abortion procedures, which gave women greater control over their own fertility and greatly reduced the societal risks of pre-marital or extramarital sex. Moreover, sex for pleasure has led to increased experimentation with behaviors traditionally regarded as taboo, such as kissing, masturbation, sexual petting, and oral and anal sex (Pan & Huang, 2009). In these ways the One Child Policy has had an irreversible impact on the sexual culture of contemporary China (Pan et al., 2004).

Effects of Economic Development on Chinese female sexuality—In addition, rapid economic development, urbanization, rising personal wealth, have all afforded young couples greater privacy, anonymity, and mobility than they have ever enjoyed in the past, creating opportunities for greater sexual exploration (Parish et al., 2007). The collapsing work unit system following economic liberalization and the unraveling of traditional family and village-based social fabrics have also contributed to this process. In addition, modern communication technology such as the internet and mobile phones provide accessible avenues for women of all classes to broaden their social spheres and potentially meet new

sexual partners. All these social changes have influenced Chinese peoples' personal lives and sexuality (Pan, 2006; Pan & Huang, 2009).

Implications for AIDS/STD control

Understanding the nature of the sexual revolution taking place among Chinese women has profound implications for STI and HIV prevention. Because sexual networks in China have traditionally been dictated by male sexual behaviors, changes in female sexual behavior could dramatically expand sexual networks in unforeseen ways. Although this study does not provide detailed analysis on sexual networks or concurrency patterns, its findings do call attention to the rapid changes in Chinese sexual behaviors and underscore the need for more AIDS/STD education and prevention in the general population.

Limitations and recommendations

One of several limitations in this study is our inability to differentiate between changes in sexual behaviors over the course of the two surveys from larger social trends which may have made it more acceptable to disclose information about one's sex life, both of which could lead to increased reporting of MSP. While computer assisted interview methods are thought to reduce underreporting due to social norms that discourage open discussion of one's sexual practices, it is impossible to estimate the potential impact of change over time on these reports

In addition, although the two surveys used randomized stratified probability sampling methods and were representative of the national population, slight differences in actual sampling strategies, the number of primary sampling units used, and different sample sizes may have affected comparability across the two surveys. A longitudinal study design would allow for close comparison over time; cross-sectional surveys cannot reveal true time trends in sexual behaviors among Chinese women.

Finally, MSP (with exclusion of remarriage) is an important measure of changes in female sexuality but it does not distinguish between premarital, extramarital and non-marital sex, which would provide added insight into shifting attitudes and norms about MSP. Similarly, these surveys do not provide data on the risk associated with multiple sexual partners such as condom use or concurrency. Such information would provide important insight for the design of HIV/STI prevention programs. We therefore recommend that future population based studies that investigate sexuality among Chinese adults consider gender power relations and design studies in ways that can better inform HIV/STI prevention work in China.

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Reference

- Dikotter, F. Sex, culture and Modernity in China: Medical Science and the Construction of Sexual Identities in the Early Republican Period. Hong Kong: Hong Kong University Press; 1995.
- Farrer, J. Opening Up: Youth Sex Culture and Market Reform in Shanghai. Chicago: University of Chicago Press; 2002.
- Farrer J, Sun ZX. Extramarital Love in Shanghai. *The China Journal*. 2003; 50:1–36.

- Female Sex Workers in China: Assessing the terms, content and knowledge of sex work. *Sexually Transmitted Diseases*. 11:695–700.
- Harriet, E. *Women and sexuality in China*. New York: Continuum; 1997.
- Hershatter, G. *Dangerous Pleasures, Prostitution and Modernity in Twentieth-Century Shanghai*. California: University of California Press; 1999. Reprint edition
- Hinsch, B. *Passions of the Cut Sleeve: The Male Homosexual Tradition in China*. California: University of California Press; 1996.
- Huang Y, Henderson GE, Pan S, Cohen MS. HIV/AIDS Risk Among Brothel-Based Female Sex Workers in China: Assessing the Terms, Content and Knowledge of Sex Work'. *Sex Transmitted Disease*. 2004 November; 31(11):695–700.
- Huang, Yingying, Shenti, Xing, Xinggan (Body, Sexuality and Sexiness: A Qualitative Study of Young Urban Chinese Women). Bei Jing: Chinese Social Science Publication; 2008.
- Hyde ST. Selling sex and sidestepping the state: Prostitutes, condoms, and HIV/AIDS prevention in Southwest China. *East Asia: An International Quarterly*. 2000; 18:109–136.
- Jefferys, E. Talking Sex and Sexuality in China. In: Jeffreys, Elaine, editor. *Sex and Sexuality in China*, London. New York: RoutledgeCurzon; 2002. p. 1-20.
- Keith, M. *Misers, Shrews, and Polygamists: Sexuality and Male-Female Relations in Eighteenth-Century Chinese Fiction*. Durham: Duke University Press; 1995.
- Li, Yinhe. *Zhong Guo Nvxing de Qinggan yu Xing (Love and Sexuality of Chinese Women)*. Bei Jing: China Today Press; 1998.
- Liu, Dalin. *Zhong Guo Dangdai Xing Wenhua (Sexual culture in modern China)*. Shanghai: Sanlian Press; 1992.
- McMillan, J. *Sex, Science and Morality in China*. Routledge Taylor & Francis Group; 2006.
- Pan, Suiming; Huang, Yingying. The Rise of Rights and Pleasure: Diversity of Sexuality and Gender. In: Zhang, KN., editor. *Reorienting Concepts and Methodology: the 30 Years SRH in China*. Bei Jing: Social Science Academic Press; 2009. p. 164-206.
- Pan, Suiming. *Zhong Guo Xinggeming Zonglun (Talking about the Sexual Revolution in China)*. Gao Xiong: Universal Press; 2006.
- Pan, Suiming. *Zhong Guo Xinggeming Chenggong de Shizheng (The Accomplishment of Sexual Revolution in China: A comparison of two surveys in 2000 and 2006)*. Gao Xiong: Universal Press; 2008.
- Pan, Suiming. *Cunzai yu Huangmiu (Three Red Light District in South of China)*. Guangzhou: Qunyan Chubanshe Press; 1999.
- Pan, Suiming; Parish, WL.; Wang, AL.; Cohen, MS. *Zhongguoren de Xing Guanxi yu Xing Xingwei 1999–2000 (Chinese Peoples' Sexual Relationships and Sexual Behavior)*. Beijing: Social Science Document Publishing House; 2004.
- Parish WL, Laumann EO, Cohen MS, et al. Population-Based Study of Chlamydial Infection in China — A Hidden Epidemic. *JAMA (The journal of the American Medical Association)*. 2003; 289:1265–1273. [PubMed: 12633188]
- Parish, WilliamL; Laumann, EdwardO; Mojola, SanyuA. Sexual behavior in China: trends and comparisons.(Survey). *Population and development review*. 2007; 33(4):729–756.
- Pei, Yuxin. Virtual self and sexual capital: Research on young Chinese women's sexual experience in the internet. In: Huang, Yingying; Pan, Suiming, editors. *Sexualities in China*. Gao Xiong: Universal Press; 2007. p. 89-110.
- Pei, Yuxin; Ho, Sik-yingHP.; Ng, ManLun. Studies on women's sexuality in China since 1980: a critical review. *Journal of Sex Research*. 2007; 44(2):202–212. [PubMed: 17599277]
- Tang, WF.; Parish, WL. *Chinese Urban Life Under Reform*. Cambridge and New York: Cambridge Univ Press; 2000.
- Zhang, Hongxia. *Sexuality in Southeast Asia and China: Emerging Issues*. Thailand: The Southeast Asian Consortium on Gender, Sexuality, and Health Publication; 2007. *Sexual Desire and Sexual Pleasure among Single Chinese Women in Modern-Day China' in The Southeast Asian Consortium on Gender, Sexuality, and Health*; p. 119-136.

Zheng TT. Complexity of Life and Resistance: Informal Networks of Rural Migrant Karaoke Bar Hostesses in Urban Chinese Sex Industry. *China: An International Journal*. 2008; 2008(6):69–95.

Table 1

Basic information of the two surveys

	Survey year of 2000	Survey year of 2006
Interview method	Computer assistant survey	Computer assistant survey
Eligibility of subjects	20–64 year old Chinese Adults	18–61 year old Chinese adults
Sample methods	Multi-stage probability samples	Multi-stage probability samples
PSU(see the map)	60	120
Sample size	3812	5404
Response rate	76.4%	71.5%
Age groups(weighted)		
18–29	25.8%	28.9%
30–39	34.5%	28.1%
40–49	21.8%	24.0%
50 and above	17.9%	19.0%
Marital status(weighted)*		
Single	7.3%	15.2
Cohabiting	2.1 %	3.9%
Married/remarried	87.9%	76%
Divorce/widow	2.8%	4.9%
Education(weighted)*		
Never attended school	19.4%	4.8%
Elementary	29.2%	20.4%
Junior high school	33.2%	39.8%
Senior high school	14.0%	23.8%
College and above	4.1%	11%

* Influenced by the difference of age in 2000 and 2006.



Prevalence and Changes in Prevalence of Multiple Sexual Partnerships among Adult Women in China in 2000 and 2006

Table 2

Characteristics	2000 MPS (%)	2006 MPS (%)	Change in MPS (PP)	Chi-square	P-value
Had two or more lifetime sexual partners	8.1	29.6	21.5	313.18	.000***
Age					
18-29	12.4	25.6	13.2	31.5	.000***
30-39	9	35	26	133.61	.000***
40-49	4.1	37.7	33.6	153.09	.000***
50 and above	4.7	17.5	12.8	30.38	.000***
Marital status					
Single	12.2	16.5	4.3	1.44	0.275
Cohabiting	17.5	48	30.5	11.22	.001***
Married/remarried	7.1	31.8	24.7	340.14	.000***
Divorce/window	19.2	21.5	2.3	0.12	0.841
Education					
Never attended school	0.5	18.4	17.9	61.8	.000***
Elementary	7.6	26.3	18.7	68.79	.000***
Junior high school	10.3	30.8	20.5	93.01	.000***
Senior high school	10.9	31.1	20.2	40.62	.000***
College and above	17.9	32.9	15	6.58	.006*
Occupation					
Farmer	5.8	29.7	23.9	210.77	.000***
Manual laborer	10.6	26.5	15.9	23.53	.000***
Sales/service/entertainment industry worker	17.5	32.3	14.8	10.78	.001**
Self-employed	10.6	28.9	18.3	21.22	.000***
Clerical worker/lower ranking bureaucrat	6.9	34	27.1	31.41	.000***
Teacher/technician	8.5	39.1	30.6	14.03	.000***
Manager/factory director/entrepreneur	33.3	37.5	4.2	0.02	0.697

Characteristics	2000 MPS (%)	2006 MPS (%)	Change in MPS (PP)	Chi-square	P-value
Government official	7.7	18.8	11.1	0.73	0.383
Unemployed	6.7	33.3	26.6	8.3	.006*
Residency					
Municipality	17.6	27.9	10.3	1.16	0.206
Capital city of province	14.3	29.9	15.6	9.66	.001**
Prefecture-Level city	11	31.5	20.5	34.33	.000****
County	11.5	29.7	18.2	34.61	.000****
Town, village	5.8	29	23.2	239.46	.000****
Political status					
Communist party member	11.8	30.2	18.4	11.37	.000****

* P<0.01;

** P<0.005;

*** P<0.001

Table 3

Logistic Regression Model on Chinese Women's Lifetime Multiple Sexual Partnerships and Other Characteristics in 2006

Variable	Distribution (% or mean)	Prevalence (%)	Odds Ratios (CI 95%)	Significance
Age				
50 and above (referent)	19	17.5	1.0	
18–29	28.9	25.6	1.518 (1.059–2.177)	.023**
30–39	28.1	35	1.975 (1.456–2.680)	.000***
40–49	24	37.7	2.356 (1.739–3.191)	.000***
Education (years) (mean)	9.3		1.041 (1.001–1.081)	0.042**
Monthly Income (RMB) (mean)	610		1.0 (1.000–1.000)	0.193
Occupation				
Other occupation (referent)	1.4	10.50	1.0	
Farmer	41.5	29.70	4.23 (1.357–13.188)	0.013**
Manual laborer	11.9	26.50	3.347 (1.069–10.476)	0.038**
Sales/service/entertainment industry worker	14.4	32.30	4.461 (1.436–13.854)	0.010**
Self-employed	9.0	28.90	3.168 (1.005–9.985)	0.049**
Clerical worker/lower ranking bureaucrat	10.8	34.00	4.029 (1.282–12.665)	0.017**
Teacher/technician	3.3	39.10	5.249 (1.572–17.525)	0.007**
Manager/factory director/entrepreneur	0.9	37.50	2.753 (.593–12.767)	0.196
Government official	0.6	18.80	0.33 (.430–12.349)	2.3
Unemployed	6.1	20.00	3.605 (1.082–12.008)	0.037**
Marital status				
Single (referent)	15.2	16.50	1.0	
Cohabiting	3.9	48.00	3.751 (2.260–6.226)	0.000***
Married (first marriage)	73.4	31.60	2.607 (1.810–3.755)	0.000***
Remarried	2.5	38.80	3.399 (1.806–6.396)	0.000***
Divorced/widow	4.9	21.50	1.835 (1.031–3.264)	0.039**
Health status				
Healthy (vs. not healthy)	56.9	28.40	1.355 (1.082–1.696)	.008**
Fatigue (vs. not fatigued)	58.9	30.20	0.807 (0.656–0.994)	.044**
Irritable (vs. not irritable)	52.9	33.60	1.416 (1.150–1.742)	.001***
Happy (vs. unhappy)	39.8	31.90	0.797 (.662–.960)	.017**
Sexual norms and other behaviors				
Positive views of extra-marital sex (vs. negative views)	42.4	32.40	1.237 (1.034–1.480)	0.020**
Danced in entertainment venue last year (vs. didn't dance)	9.9	42.70	1.957 (1.446–2.649)	0.000***
Had full body massage by men (vs. no massage)	1.4	55.60	2.062 (1.008–4.219)	0.047**

Variable	Distribution (% or mean)	Prevalence (%)	Odds Ratios (CI 95%)	Significance
Took sex enhancing medicine or nutrients (vs. didn't take)	7.5	38.30	1.393 (1.013–1.915)	0.042**
Control variables				
Rural Residency (vs. non-rural)	56.3	29.00	1.061 (.802–1.404)	0.678
Communist Party member (vs. non-member)	10	30.20	0.858 (.628–1.172)	0.336

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p < .05

p < .005