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Power Relation and Condom Use in Commercial Sex Behaviors

YING WANG[*,1], BING LI[#], DONG-MEI SONG[◊], GUANG-YAN DING[#], AND EMRIC CATHY[Δ]

[*]*Institute of Viral Disease Prevention and Control, Chinese Center for Disease Control and Prevention, Beijing 100050, China;* [#]*Shandong Institute of Dermatology and STD Prevention and Control, Jinan 250022, Shandong, China;* [◊]*Women's Reeducation Center in Jinan, Jinan 250022, Shandong, China;* [Δ]*University of North Carolina at Chapel Hill, Chapel Hill, 27599-7030, USA*

Objective To explore whether condom use is influenced by power relation in commercial sex behaviors. **Methods** Variables were designed to measure the power relation in commercial sex behaviors based on the theory of gender and power relation and data were collected from male sexually transmitted diseases (STD) patients and female commercial sex workers (FSWs) working at recreation centers or being detained in a women education center to identify the relationship between condom use and power relation in male and female respondents using bivariate and multiple regression analysis. **Results** A significant relationship was identified between power relation and female condom use, the higher the score of power relations, the higher frequency the condom use, but no similar result was found in males. Females got a higher score of power relation than males. **Conclusions** Power relation is one of the factors that influence condom use, which should be considered when relevant theories are used to study the rate of condom use. It is worthwhile exploring the relationship between safe sex and power relation in spouses and regular sex partners when interventions are adopted to prevent HIV/AIDS spreading from high risk groups to the general population.

Key words: Power relation; Condom use

INTRODUCTION

As HIV/AIDS continues to spread in China, women are increasingly becoming victims of the epidemic, accounting for 39% of all persons living with HIV in 2004, compared to 15% in 1998[1]. Therefore, power relation in sex behavior and condom use between males and females need further study. This information is critical both to the cultural adaptation of health behavior theories such as knowledge, attitude, beliefs, and practices (KABP), theory of reasoned action[2], and socioecological mode[3], and to the design and implementation of effective HIV prevention programs.

MATERIALS AND METHODS

Respondents

Three categories of subjects were enrolled in this study: female sex workers (FSWs) detained in a government-run women reeducation center in Jinan, Shandong Province between March and June of 2004; FSWs providing commercial sexual services in recreation centers (e.g., nightclubs, bath houses) in one district of Jinan; and male STD patients visiting Shandong Institute of Dermatology and STD Prevention and Control. All FSWs detained in the Women Reeducation Center were eligible for enrollment. FSWs in recreation centers were specifically identified as being eligible by the Center managers. The eligible male STD patients self-reported to have contracted STD from FSWs.

Method

A face to face survey was designed and then conducted by physicians with field experience at the Shandong Institute of Dermatology. Informed consent was obtained from all the participants and no personal information was recorded. All the data were entered into Excell data set and analyzed using SAS.

Content of Survey

The survey included demography trait, STD/HIV related knowledge, condom use and factors

[1]Correspondence should be addressed to Ying WANG, Office of Disease Control and Health Emergency Response, Chinese Center for Disease Control and Prevention, 27 Nanwei Road, Beijing 100050, China.

Biographical note of the first author: Ying WANG, female, born in 1963, Ph. D., majoring in control and prevention on infectious disease.

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influencing its rate, frequency of sexual contacts with FSWs (for male STD patients) or clients (for FSWs), and power relation variables drawn from gender theory and survey.

RESULTS

Demographics

The 315 participants included 154 FSWs (5% refusal rate) from the Women Reeducation Center, 90 FSWs (30% refusal rate) from recreation centers, and 71 male STD patients (10% refusal rate). Since they were regarded as a whole population in this study, FSWs in the Women Reeducation Center and recreation centers were aggregated. The total number of FSWs was 244. The average age of FSWs was 25 years, ranging 15-42 years. Most of them (70%) were not married, while 15% were married, 11% divorced, and 4% had other status. Twenty-five percent completed primary school, 40% junior high school, and 26% high school or more. Nine percent were illiterate. The average number of clients per week was 3.8 persons.

The average age of male STD patients was 38 years, ranging 18-58 years. Most of them (51%) were married, while 26% were not married, 14% divorced, and 9% had other status. The majority of them (70%) had at least high school education, while 14% completed only primary school and 15% junior high school. One percent was illiterate. The average number of visits to a FSW in the past year was 5.6.

Factors That Influenced Condom Use

Power relations The following questions were designed to measure power relation in commercial sex behaviors[4-7].

X1 Generally speaking, who first proposed using a condom in your commercial sex activities? Answers were categorized as yourself=1*vs* others/neither =0.

X2 Did you worry about being hit and cursed when you first proposed using a condom (female)? Yes=0, No=1.

X3 Did you worry about possible giving up by clients when you first proposed using a condom (female)? Yes=0, No=1.

X4 Did you experience being hit and cursed when you insisted on using condoms (female)? Yes=0, No=1.

Did you hit or curse a FSW when she insisted on using a condom (male)? Yes=1, No=0.

X5 If you first proposed using a condom, did he/she agree? Yes=1, No=0.

X6 If a client refused to use condom, did you give up the client or give up using the condom? Answers were categorized as "giving up client=1" *vs* "giving up using condom=0".

X7 If a client wanted oral sex, did you perform it (female)? Yes=0, No=1.

Did most FSWs perform oral sex when asked (male)? Yes=1, No=0.

X8 If a client wanted anal sex, did you perform it (female)? Yes=0, No=1.

Did most FSWs perform anal sex when asked (male)? Yes=1, No=0.

X9 Should FSWs meet the demands of clients (female)? Yes=0, No=1; (male) Yes=1, No=0.

The frequency of condom use was divided into three categories: not used in most of the time (1), used sometimes (2), or used in most of the time (3).

Univariate Analysis Between Power Relation and Condom Use

As Table 1 shows, FSWs with the following behaviors were most likely to use condoms: voluntarily proposing condom use, neglecting possible giving up by the clients if condom use was proposed, and giving up clients who refused to use condoms, and refusing oral sex. The other variables that had significance of condom use were knowledge score of STD/HIV (F=24.61, P<0.0001), score of how to use condom correctly (F=8.56, P=0.0003), awareness of possible prevention of SDT/HIV by correct use of condoms (x^2=11.23, P=0.0036), and accumulated score (X1+X2+X3+X4+X5+X6+X7+X8+X9) of power relation (F=17.35, P<0.0001). However, there was no significance of age, education, marital status, use of other methods of contraception and availability of condom use.

As Table 2 shows, the variable regarding who first proposed using condoms was related to condom use. Other significant variables were availability of condom (x^2=10.79, P=0.03) and knowledge of HIV/AIDS (F=9.10, P=0.0004); there was no significance with age, education, marital status, the number of visited FSWs, knowledge of correct using condoms, and accumulated score of power relation.

Multiple Regression Analysis

Multiple regression analysis was conducted on the basis of variables that were statistically significant ($P\leqslant 0.1$).

Multiple linear regression for condom use in males showed that only knowledge score of STD/HIV had significance of condom use.

Power Relation Between Males and Females

The six common variables found in male and female respondents in this study were used for the comparison of accumulated scores of power relation. The average score was 5.48 for females and 1.26 for males (P<0.0001). As shown in Table 4, with the

exception of variables X4 and X5, self reported empowerment was higher in females than in males.

TABLE 1

Variables Related to Power Relation and Female Condom Use

Variables	Condom Use			Trend χ^2	*P*
	1	2	3		
X1 Yourself=1	15.00	24.09	60.91	14.09	0.0009
Others/Neither=0	50.00	16.67	33.33		
X2 Yes=0	13.64	22.73	63.64	0.26	0.8779
No=1	17.67	23.26	59.07		
X3 Yes=0	34.62	15.38	50.00	6.27	0.0434
No=1	15.17	24.17	60.66		
X4 Yes=0	34.38	37.93	27.59	13.88	0.0010
No=1	15.38	21.15	63.46		
X5 Yes=1	20.51	23.08	56.41	0.23	0.8926
No=0	17.35	23.47	59.18		
X6 Give up Client=1	10.38	18.03	71.58	44.44	<0.0001
Give up Condom Use=0	37.70	37.70	24.59		
X7 Yes=0	41.67	33.32	25.00	15.75	0.0004
No=1	15.02	20.66	64.32		
X8 Yes=0	0.00	0.00	0.00		
No=1	17.50	22.92	59.58		
X9 Yes=0	35.71	28.57	35.71	4.45	0.1082
No=1	16.37	22.57	61.06		

TABLE 2

Variables to Measure Power Relation and Condom Use in Males

Variables	Condom Use			Trend χ^2	*P*
	1	2	3		
X1 Yourself=1	33.33	46.67	20.00	6.10	0.0473
Other/Neither=0	68.52	22.22	9.26		
X4 Yes=1	0.00	0.00	0.00		
No=0	59.15	26.76	14.08		
X5 Yes=1	55.74	31.1	13.11	0.78	0.6757
No=0	0.00	0.00	100.00		
X7 Yes=1	40.00	33.33	26.67	3.62	0.1633
No=0	64.29	25.00	10.71		
X8 Yes=1	33.33	44.44	22.22	2.85	0.2404
No=0	62.90	24.19	12.90		
X9 Yes=1	59.57	31.91	8.81	2.24	0.3258
No=0	61.90	19.05	19.05		

TABLE 3

Multiple Regression Analysis of the Factors Relevant to Condom Use in Females

Variables	Regression Coefficient	Standard Error	Standard Coefficient	*P*
Knowledge Score of STD/HIV	-0.05655	0.01558	-0.28099	0.0004
Accumulated Score of Power Relation	-0.29615	0.08077	-0.2489	0.0003
Knowledge Score of Condom Use	-0.09460	0.06952	-0.10592	0.1753
Awareness of Preventing SDT/HIV by Condom Use	-0.17889	0.13490	-0.0927	0.1862

TABLE 4

Comparison of Power Relation Between Males and Females

Variables (%)	Males	Females	χ^2	*P*
X1:Self Report As First Proposing Condom Use	21.74	92.44	148.93	<0.0001
X4: Hit or Curse/Being Bitten or Cursed	0.00	12.24	9.59	0.0020
X5: Clients Proposed Using a Condom, FSWs Agree FSWs Proposed Using a Condom, Clients Agree	98.39	95.78	0.94	0.3317
X7: Clients Reported That FSWs Did Not Perform Oral Sex FSWs Self Reported Not Performing Oral Sex?	78.87	89.87	5.98	0.0145
X8: Clients Reported not Performing Anal Sex FSWs Self Report Not Performing Anal Sex	87.32	100.00	31.33	<0.0001
X9: Agree That FSWs Should Obey Clients	69.12	5.83	133.61	<0.0001

Condom Use in Both Males and Females

In this study, females were significantly more likely to use condom than males. The significance was associated with the fact that most of the males enrolled in the study reported having contracted STD from FSWs, implying that condom was not used by the clients.

TABLE 5

Condom Use in Males and Females

Sex	Condom Use			χ^2	*P*
	3	2	1		
Male	14.08	26.76	59.15	59.86	<0.0001
Female	59.84	22.95	17.21		

DISCUSSIONS

There is no universally accepted definition of power. The theory of gender and power relation suggests that structured inequality based on gender disparity is a common social phenomenon that provides the male with more power than the female. According to this theory, males are therefore able to make the bulk of decisions, including decisions in respect of sexual behavior. Researchers have shown that an inequality of power between males and females can be addressed within the context of sexual relationship, specifically concerning condom use and types and frequency of sexual activity[4-6]. Gender-based violence is also a critical issue[7]. Therefore, based on the above theories and researches, this study began to address power relation in commercial sex behaviors in the context of Chinese culture to advance both relevant theories and practical knowledge. The variables developed to measure the power relation need further testing for validation.

Results from this study indicate that, like knowledge, power relation may play a critical role in condom use. FSWs reporting a high level of empowerment also reported more frequent condom use. Therefore, when theories of behavior changes are used to study the factors relevant to condom use, the role of power relation should be considered. Empowerment was not significantly associated with condom use among male participants in this study, but future research in this area with a larger sample size is needed before ruling out such a relationship.

Power is a kind of ability to control others. Power-related factors depend on others, availability of resources (for example, economic conditions and mental ability), and the presence of an alternative relationship between them. Greater power means greater ability to control the behavior of oneself and one's partner, and less depends less on others and availability of more resource. According to Miller, Barns, and Rothspan, inequality of power contributes to gender difference in sexual behaviors. For instance, males have more sexual partners than females, males have the traditional capacity of deciding when, where, and how to have sexual activity, thus making females difficult to effectively negotiate safer sexual behaviors[4]. However, this study showed that in regard with commercial sex behaviors, females had more power than males (Table 4). This can be explained by the fact that although FSWs depend on males financially, they have the option of alternative clients, which decreases their dependency on any individual clients. On the other hand, since sexual behavior is in the context of a single encounter, social and mental support from one sexual partner is weaker. In China, a multi-year media HIV/AIDS education program has helped FSWs gain some knowledge of HIV/AIDS. Since good health is seen by FSWs as a job requirement, condom use is highly valued by them. In our study, 51% of the male respondents were married, STD

prevention and family stability were the important reasons for them to consider condom use with FSWs. Again since sex behavior is in the context of a single encounter, there are alternative choices for both FSWs and their clients, which can greatly decrease the frequency of possible violence experienced by FSWs. Our findings indicate that it is necessary to further explore the power relations in condom use as such relations pertain to the spouses and regular partners of FSWs' clients who are greatly influenced by social, economic, and cultural factors, including the desire to become a mother. Meanwhile, it should be noted that, although 92% of females first proposed using condoms, only 60% of them used condoms in most of the time.

When data obtained from enrolled males and females were compared, a number of inconsistencies were found. First, no self reported physical violence was found in males, but 12.84% of females reported have experienced violence. Second, males were more likely to report a higher proportion of satisfaction of oral and anal sex behavior than females. The possible reasons for these inconsistent data are as follows: the males might be reluctant to admit abusing FSWs and were not necessarily the clients of the enrolled FSWs, and FSWs might be reluctant to admit having oral and anal sex behavior for money.

Our findings may not be generalized in other population groups, especially among males since only current STD clinic visitors self-reporting FSW contacts were included. Since STD patients at clinic may differ from those who do not visit clinic and clients who do not contract STD, relationship between condom use and power relation for them may differ. Meanwhile, the sample size of FSWs at recreation centers is restrained by the time and cost, but FSWs in a government-run women reeducation center are good representatives. In short, the present study should be followed up with larger sample sizes of diverse FSW and client populations.

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