

## Between Tradition and Change: Condom Use with Primary Sexual Partners Among Mexican Migrants

Ramiro Caballero-Hoyos · Teresa Torres-Lopez · Alicia Pineda-Lucatero · Carlos Navarro-Nuñez · Raquel Fosados · Thomas W. Valente

Published online: 4 April 2008  
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**Abstract** The frequency of male Mexico–US migration has been associated with increased HIV risk for sexual partners awaiting their return in Mexico. This study examined the association between sexual partner characteristics and condom use among a sample of 354 male migrants from two Mexican municipalities. Migrants were interviewed about their past year's sex practices. Results indicated that migrants were more likely to use condoms with their non-spousal partners, partners with less education than the migrant, and partners with higher employment status. Condom use was greater among younger migrants and residents of the more densely populated municipality. Findings suggest the coexistence of a traditional cultural orientation that does not support condom use and another one that does provided the sex partner is formally employed. Prevention programs must strengthen the structural conditions fostering greater equality between the

sexes and adapt their approaches for different population density, age and partner types.

**Keywords** Mexican migrant · Condom use · HIV/AIDS · Sexual risk · Sexual partners

### Introduction

International studies on migrant health have reported that the spread of infectious diseases could be accelerated and intensified through the migratory process (Mabey and Mayaud 1997; Lurie et al. 2003). The health environments of both origin and destination nations are affected as rates of international migration continue to increase. The socioeconomic, cultural and epidemiological circumstances associated with HIV/AIDS are influenced by place of origin, transit, destination, and subsequent returns resulting from the process of spatial mobility. This situation poses a challenge to creating complete and inclusive public health systems and policies that span national borders (IOM 2005).

Labor migration from Mexico to the United States (US) is one of the most significant in the world involving millions of people with attendant economic and cultural impact on both countries. The structure is based on a secondary, flexible seasonal labor force, whose traditional makeup was homogeneous: undocumented males, either unskilled agricultural workers or skilled manual laborers, coming from some impoverished rural and urban regions of Mexico (Durand et al. 2001; Massey and Sana 2003). In the last few years, however, migrants have become more heterogeneous, predominantly comprised of urban migrants from all regions of Mexico. These migrants also have higher educational levels, have attained greater diversity in

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R. Caballero-Hoyos (✉)  
Epidemiological and Adolescent Health Services Research Unit,  
Mexican Institute of Social Security, Av. Tonalá 121, Tonalá,  
Unidad de Medicina Familiar # 93 IMSS, Second Floor,  
Guadalajara C. P. 45400, Mexico  
e-mail: rchsur@gmail.com

T. Torres-Lopez  
Department of Public Health, University of Guadalajara,  
Guadalajara, Mexico

A. Pineda-Lucatero · C. Navarro-Nuñez  
Epidemiological Research and Health Services Unit,  
Mexican Institute of Social Security, Colima, Mexico

R. Fosados · T. W. Valente  
Department of Preventive Medicine at the Keck School  
of Medicine, University of Southern California,  
Los Angeles, CA, USA

employment and occupation, and there is a growing female and adolescent population. Finally, the traditional temporary circular migration pattern has changed to lengthier or more permanent stays in the US (Leite et al. 2003).

There is a relatively stable HIV/AIDS epidemic in Mexico, concentrated in population groups who engage in risky behavior. Traditionally, the epidemic has remained an urban one, but a more recent rural trend has emerged, mainly affecting heterosexual men and women. At the end of 2000, more than 47,000 AIDS cases were reported throughout Mexico, whose primary mode of transmission was sexual. More than 90% of these cases were reported in urban areas while <5% were reported in rural ones. Of interest is that cases reported in rural areas (based on date of diagnosis) continue to increase: from 2.2% in 1986 to 8.8% in 1999. Those affected most were socially marginalized groups (Bravo and Magis 2003). The spread of HIV to rural areas has been associated with the migration of temporary workers to the US. One study reported that 25% of the rural AIDS cases in Mexico were among people who had prior migratory experience, compared to 6% of urban AIDS cases (Magis-Rodriguez and Del Rio-Chiriboga 2000). Magis-Rodriguez et al. (2004), in a review of Mexican studies, found that migration to the United States was associated with changes in behaviors that place them at risk for the acquisition of HIV. Although migrants reported greater numbers of non-stable sex partners and more intravenous drug use, they also reported greater use of condoms compared to non-migrants.

Mexican sending communities have a lower HIV prevalence than Hispanic receiving communities in the US (Del Rio and Sepulveda 2002). Although, the US Latino/Hispanic population has reported higher HIV incidence rates than any other ethnic group between 1999 and 2002 (CDC 2003). At the beginning of the HIV/AIDS epidemic in Mexico, analyses of registered AIDS cases showed that labor migration to the US was associated with HIV/AIDS risk behavior (Bronfman et al. 1989; Cardenas-Elizalde 1988). Later studies (Bronfman and Minello 1995; Magaña 1991; Organista et al. 1997) indicated that temporary migration to the US was associated with a context of loneliness, poverty, emotional crises, risky sex practices, lifestyle changes, and substance use increased migrants' vulnerability to HIV. The lack of social control resulting from living in a more permissive sexual culture with greater access to commercial sex workers and casual partners than in Mexico also increased risk (Parrado et al. 2004; Wolffers et al. 2002). Studies of migrants residing temporarily in rural areas of the US have highlighted greater vulnerability for HIV among their spouses and stable partners left in Mexico (Hirsch et al. 2002, 2007; Salgado de Snyder 1998). As migrants returned to their residences in Mexico, their spouses became vulnerable to

HIV, especially when the male migrants engaged in risky sexual practices while in the US. These findings shed light on how HIV is being transformed into a rural epidemic in Mexico; namely from rural male Mexicans migrating to the US and returning to rural Mexico having been exposed HIV.

Three qualitative studies documented the vulnerability of women in rural Mexican communities stemming from gender inequity inherent in traditional concepts of trust with regards to sex. The studies document low rates of condom use, and minimal negotiation of condom use (Hirsch et al. 2002, 2007; Salgado de Snyder 1998). These studies reported that the majority of migrant males had frequent sexual contact in the US and upon returning to their communities, renewed sexual practices with their partners who had very little negotiation skills to insist for safe sex.

Migrants' probability of acquiring HIV/STIs depends on choice of sex partner and sexual behaviors (Rothenberg 2001). Sexual behavior takes place within a social context composed of personal relationships that influences the risk of disease transmission and propagation. Sexual and preventive behavior should be studied as a function of the different dimensions structuring relations with partners (Bajos and Marquet 2000). In epidemiologic terms the context of sexual partner's characteristics can influence HIV spread, and thus the riskiness of unsafe sexual behavior (Morris 1997).

The purpose of the present study is to analyze the association between male migrants' primary sexual partners' characteristics and condom use. Data come from a sample of male migrants from two Mexican towns with differing demographic compositions and migration histories.

Previous studies conducted in Mexico have described women's vulnerability due to the risky behaviors practiced by their male partners within rural, low population density regions. Few studies, however, have investigated how high rates of outgoing international migrations from high-density urban regions affect HIV risk. Further, no studies have considered HIV risk from a relational perspective of condom use among migrants based on the description of their sexual partners' characteristics.

## Methods

### Participants

An anonymous cross-sectional survey was fielded among male migrants residing in two municipalities in Mexico. Data collection occurred between December 2003 and January 2004 in the municipalities of Tonalá, Jalisco and

Cuauhtemoc, Colima, located in Central Western Mexico. This region historically has one of the highest outward migration rates to the US, and Jalisco as well as Colima are states with high degrees of migratory intensity to the US (Durand et al. 2001).

Tonala, Jalisco, with a population of over 300,000 residents, is part of the Guadalajara metropolitan area (Guadalajara being the capital of the State of Jalisco), and is the poorest part of this urban metropolis. It is a municipality where residents have a history of producing various traditional handmade products, crafts, and agricultural products (Arias 2000). Cuauhtemoc, Colima has a population of over 25,000 inhabitants spread over subdivisions of <8,000 people each. Although a more rural community, it is a municipality with communal land dominated by various agricultural activities, including the sugar cane industry (Urzua-Orozco 2002).

These municipalities were chosen because of their population characteristics and the differing rates of extensive international migration to the United States (more in Cuauhtemoc than in Tonalá). In the last few decades, Mexican migration to the US has come mainly from small towns (with fewer than 15,000 inhabitants), while migration from larger towns (with more than 100,000 inhabitants) increased from 15 to 27% (Marcelli and Cornelius 2001). The selection of these two municipalities was also made based on the number of registered HIV/AIDS cases as reported by the National AIDS Case Registry.

A total of 354 migrants (149 in Tonalá; 205 in Cuauhtemoc) were interviewed by trained staff living outside of the municipalities (community health nurses; anthropology and psychology university students). The participants were recruited with non-probabilistic sampling methods, including street outreach, and snowball sampling from an original list of families with migrating family members. The list was prepared by local community health workers familiar with residents. The sampling strategy aimed for diversity (migratory experience, age, education and socioeconomic status) rather than targeting any particular sub-group. Interviewers recruited respondents from many different localities and this facilitated trust and motivated participation.

The following inclusion criteria were used: (a) men 15–55 years old residing in Tonalá and Cuauhtemoc; (b) documented or undocumented residency in the US during the past 3 years; and (c) at least one sexual partner during the last year.

The refusal rate was 20% which is low considering the inherent distrust of authority figures which may exist among migrants who were undocumented during their US stay. Distrust may also derive from potential respondents' status as being socially vulnerable as evidenced by their migration status. Undocumented migrants may also possess

a higher degree of anxiety given their economic status or experience of being fearful of the police (Caraveo and Colmenares 2002; Hovey and Magaña 2002).

## Measures

The structured questionnaire used in this study was adapted from the version used by UNAIDS to study the circumstances involved in HIV transmission risk and sexual partner networks (UNAIDS 1998). The questionnaire was translated into Spanish and was pilot tested with 30 migrants from two areas in Jalisco and Colima with similar characteristics as our targeted municipalities. The pilot testing allowed for structure and content modifications to the questionnaire.

The questionnaire collected information on various socio-demographic characteristics (age, education, marital status, occupation, Indian language use), migratory experience (number of trips, occupational sector, weekly average of hours worked, documentation), the number of and characteristics of sexual partners over the last year (age, education, marital status, birthplace and occupation measured as: workers and employees of the industrial, commerce and service sectors, self-employed informal activities in commerce or services and unemployment); and attributes of the relationship with each partner (type of relationship, frequency of sexual relations, country where sexual contact occurred, substance abuse and condom use frequency. Condom use was measured by a question asking whether or not they report always using a condom with each partner with response options ranged from 1 = never to 5 = always). Questions about sexual partner characteristics had an egocentric social network format that asked the participant to name up to 8 of his sexual partners during the last year and to describe their most relevant attributes (Marsden 1990).

## Procedures

The interviewer-administered questionnaire was conducted in private, either outdoors or in the participant's home. Interviews lasted approximately 40 min. Procedures for the ethical treatment of subjects were followed: written informed consent, measures assuring confidentiality, anonymity and the voluntary participation of all subjects. When participants were under the age of 18, consent was obtained from parent or guardian.

## Statistical Analysis

The unit of analysis used was the relation between migrants and the traits of their sex partners. At the same time the analysis was limited to primary sex partners reported by the

interviewees (partners mentioned first and considered the primary partners) omitting secondary partners (mentioned after the first ones). This characterization of sex partners is usual in psychosocial studies appraising the risk of HIV/AIDS transmission associated with interactions between couples in different populations (Misovich et al. 1997).

Analyses consisted of evaluating descriptive statistics of the migrants' socio-demographic characteristics, those of their primary sexual partner, and condom use (means and Chi-Square significance tests). Logistic regression of factors associated with condom use was used to estimate un-adjusted and adjusted odds ratios (OR) and 95% confidence intervals (95% CI). Reliability of the model was evaluated with the Hosmer–Lemeshow test for regrouped and ordered data according to prediction probabilities. Variables used in logistic regression analyses were included based on their statistical significance from the bivariate associations (at  $P < .10$ ) and their theoretical relevance. Variables were coded as follows: dependent variable (condom usage) was dichotomized as: always or regular use = 1, sometimes and never or irregular use = 0. Independent variables were placed in four categories: (a) relationship characteristics with sexual partner: type of relationship with sexual partner (non-spousal = 1; spouse = 0); country where sexual contact occurred (US or places in transit = 1; Mexico = 0); sexual relation frequency (average times a month); relationship stability (yes = 1; no = 0); (b) sexual partner characteristics: main economic activity (workers and employees of the industrial, commerce and service sectors = 1; self-employed informal activities in commerce or services and unemployment = 0); marital status (married or living together = 1; divorced or separated = 2; alone = 3); (c) individual migrant characteristics: age (15 to 24 years = 1; 25 or older = 0), municipality of residence (Tonalá = 1; Cuauhtemoc = 0), and experience of trips to US (two or more trips = 1; first trip = 0); and (d) the difference of educational level between migrants and their sex partners (average numeric difference of educational levels: from  $-7$  to  $+7$ , the lowest level being “no schooling” = 1 and the highest “university” = 7). All analyses were conducted with SPSS statistics package for Windows 12.0.

## Results

### Characteristics of Migrants and Their Primary Sexual Partners

Table 1 reports socio-demographic characteristics of the sample: 75% were 25 years old or older, 66.8% had junior high school education or less, 90% were actively

employed during the previous 3 months, 55.1% were married or living with a partner, 88.3% were Catholic, and 7.1% spoke an Indigenous language. There were significant differences between the municipalities with respect to age ( $\chi^2 (1, N = 354) > 6.8, P < .005$ ) and Indigenous language use ( $\chi^2 (1, N = 354) > 11.5, P < .001$ ). At the same time, participants' migratory characteristics were: 76.7% had traveled twice or more often to the US, 50.5% had stayed longer than a year on their last trip, 58.3% reported authorization to work in their last stay, 38.1% worked in the service and commercial sectors, 27.3% in the manufacturing and construction sectors, and 19.2% in the agricultural sector. There were significant differences between the municipalities for length of stay on their last US trip ( $\chi^2 (1, N = 354) > 10.6, P < .001$ ), active employment for the last 3 months in the US ( $\chi^2 (1, N = 354) > 6.9, P < .01$ ) and the economic sector they worked in ( $\chi^2 (4, N = 354) > 11.0, P < .05$ ).

Migrants reported a mean of 1.9 sexual partners during the last year ( $SD = 2.4$ , median/mode = 1). Table 1 describes the characteristics of the primary sexual partner in both municipalities studied. There were significant differences between the municipalities for sexual partner's kind of relationship ( $\chi^2 (1, N = 354) > 6.8, P < .01$ ): in Tonalá, 45% of primary sex partners were spouses whereas 55% were not (62.3% friends, 28.7% girlfriends, 6.1% co-worker, 1.5% casual sex partner, and 1.4% sex worker). In Cuauhtemoc, 60.3% of primary sex partners were spouses whereas 39.7% were not (47.8% friends, 36.5% girlfriends, 8.6% casual sex partner, 4.3% co-worker and 2.8% sex worker). The sex partners' main activities were self-employed and unemployment in Tonalá (52.9%) and workers and employees in Cuauhtemoc (54.5%). Finally, the partners' educational level was higher in Tonalá than in Cuauhtemoc. There were no significant differences between the municipalities for sex partners' main activities and partner's educational level.

### Condom Usage Frequency

The majority of the migrants did not use condoms with their partners during the last year. Condom use was lower in the rural municipality (Cuauhtemoc, 36.9%) than in the one with higher population density (Tonalá, 59.3%). Regular condom use was also lower in the rural municipality (Cuauhtemoc, 28.6%) than in the one with higher population density (Tonalá, 37.3%). The difference in condom use frequency between both municipalities was not statistically significant. Of those reporting regular condom use, 10.5% indicated that the condom was removed prior to concluding sexual contact, 6.8% reported the condom had broken, and 3.9% indicated putting a condom on after penetration (results not shown). With respect to substance use, 5.6% of

**Table 1** Individual socio-demographic and migratory aspects and primary sexual partner characteristics of the study group, municipalities of Tonalá, Jalisco and Cuauhtemoc, Colima. ( $N = 354$ )

Variables	Municipalities		$\chi^2$
	Tonalá Total % of sample ( $N = 149$ )	Cuauhtemoc Total % of sample ( $N = 205$ )	
Individual socio-demographic aspects			
Age			8.6**
15–24 years old	31.8	18.2	
25 or older	68.2	81.8	
Head of family	56.8	62.4	1.2
Married or living together	52.3	58.0	1.6
Educational level junior high school or less	68.4	65.2	0.4
Catholic religion	89.3	87.3	20.1
Indian language	2.1	12.2	11.5**
Individual migratory aspects			
Experience of two or more trips to the United States	74.0	79.4	1.4
Stayed for more than a year on the last trip	41.7	59.4	10.6**
Authorized to cross the border on their last trip	58.4	58.8	0.0
Authorized to work on their last trip	53.6	63.0	5.4
Active employment for the last 3 months in the US	85.9	94.1	6.9**
Economic sector they worked in during the last year			11.0*
Commerce	15.1	6.2	
Services	38.9	37.3	
Farming activities	13.5	24.9	
Industry	27.0	27.7	
Other	5.6	4.0	
Primary sexual partner characteristics			
Sexual partner's main activity			1.6
Worker or employee	47.1	54.5	
Self-employed or unemployed	52.9	45.5	
Sexual partner's educational level			
High school or higher	50.4	44.9	0.9
None to junior high	49.6	55.1	
Sexual partner's kind of relationship			6.8*
Non-spousal	55.0	39.7	
Spouse	45.0	60.3	

\*  $P < .05$ .\*\*  $P < .01$ .

migrants indicated using substances at least once prior to having sexual contact with partners. Of these, only 25% used condoms regularly.

### Factors Associated with Condom Usage

Factors associated with regular condom use with primary sex partner were: a non-spousal type of relationship with the partner ( $OR = 21.0$ , 95% CI: 5.26–83.86), less frequent sexual contact ( $OR = 0.9$ , 95% CI: 0.78–0.94), sex partners working as workers or employees in the industrial, commerce or service sectors ( $OR = 6.9$ , 95% CI: 2.20–21.56), the higher educational level of migrants in comparison with the lower level of their sex partners ( $OR = 1.6$ , 95% CI: 1.15–2.34), migrant age between 15

and 24 ( $OR = 4.5$ , 95% CI: 1.26–15.99), and Tonalá residence ( $OR = 3.6$ , 95% CI: 1.16–10.91) (Table 2).

### Discussion

The objective of this study was to analyze the association between male migrants' primary sexual partners' characteristics and condom use in two regions of different population densities. Our findings show that regular condom use was different by regions and was associated independently with variables traditionally related to the vulnerability of the migrant population (partner type, frequency of sexual relations, and differentials of the partners' educational level) as well as those related to possible

**Table 2** Factors associated with regular condom usage with past year's primary sexual partners over the last year

Factors	Irregular or no condom use (N = 199) n (%)	Regular condom usage (N = 94) n (%)	Univariate odds ratio (95% CI)	Multivariate adjusted odds ratio (95% CI)
Kind of relationship with sexual partner				
Non-spousal	52 (26)	83 (88)	21.7 (10.75–44.01)	21.0 (5.26–83.86)
Spouse	147 (74)	11 (12)	Referent	Referent
Currently maintain stable relationship with sexual partner				
Yes	38 (19)	53 (56)	6.1 (3.51–10.52)	0.4 (0.08–2.52)
No	161 (81)	41 (44)	Referent	Referent
Average monthly sexual contact with partner	3.5 <sup>a</sup>	1.1 <sup>a</sup>	0.8 (0.78–0.92)	0.9 (0.78–0.94)
Place where sexual contact occurred with partner				
In the United States or somewhere in transit	53 (27)	53 (56)	3.6 (2.13–5.96)	0.4 (0.12–1.56)
In hometown in Mexico	146 (73)	41 (44)	Referent	Referent
Sexual partner's main activity				
Worker or employee	93 (47)	60 (64)	2.0 (1.21–3.33)	6.9 (2.20–21.56)
Self-employed or unemployed	106 (53)	34 (36)	Referent	Referent
Sexual partner's marital status				
Married or living together	90 (90)	10 (10)	0.1 (0.07–0.31)	1.5 (0.44–5.53)
Divorced or separated	13 (59)	3 (41)	0.9 (0.37–2.29)	0.4 (0.06–2.56)
Alone	95 (57)	71 (43)	Referent	Referent
Difference of education level between migrant and sexual partner	−0.38 <sup>a</sup>	0.6 <sup>a</sup>	1.2 (1.02–1.51)	1.6 (1.15–2.34)
Municipality				
Tonala, Jalisco	74 (37)	44 (47)	1.5 (0.90–2.44)	3.6 (1.16–10.91)
Cuauhtemoc, Colima	125 (63)	50 (53)	Referent	Referent
Migrants' age				
15–24 years old	29 (15)	37 (39)	4.0 (2.22–7.12)	4.5 (1.26–15.99)
≥25 years old	170 (85)	57 (61)	Referent	Referent
Migrant's experience of trips to the US				
Two or more trips	164 (70)	69 (30)	1.7 (0.97–3.15)	0.5 (0.14–2.02)
First trip	34 (58)	25 (42)	Referent	Referent

CI: confidence interval

Hosmer & Lemeshow adjustment dependability test:  $\chi^2 = 5.36$ ,  $df = 8$ ,  $P = .718$

<sup>a</sup> Arithmetical mean

changes to preventive culture based on economic position (the sex partner's work status).

Two independent factors associated with greater probability of regular condom use were infrequent sexual contact and sex with non-spousal partners. These factors are associated with perception of trustworthiness of the sexual partner, more specifically as a function of whether the partner is known and close to the participant. The effect is widely reported in studies of general and Mexican migrant population about condom use and is related to the natural penchant to protect oneself with unknown or casual sex partners (Hirsch et al. 2002, 2007; Magis-Rodriguez

et al. 2004; Salgado de Snyder 1998; Thorburn-Bird et al. 2001). The effect is plausible under the premises of the relational theory of sexuality associated with the risk of transmitting HIV/AIDS, due to the fact that sexual relations are the result of processes that may be stable or sporadic in different frameworks and times. A couple's evolution toward reciprocal trust impairs maintaining safe sex practices. When there is a temporary spatial separation, as in the case of migration, the parties sometimes assume they know their partner's sex life and do not take protective measures upon their reencounter. In this sense, the evolutionary nature of sexual interactions creates a central

problem for developing preventive practices against HIV/AIDS because a perception of greater closeness and trust discourages the use of protection (Ferrand and Snijders 1997; Valente and Vlahov 2001).

Another variable significantly associated with regular condom use was the difference between the sex partners' educational level. Regular use was more frequent when the migrant had a higher level of education than his partner. This finding is related to what was reported in a study about power in partner relationships of Mexican migrant women in the United States and of non-migrant women in rural Mexican communities (Parrado 2005). Parrado (2005) found that a woman's lower educational level was associated with less power over emotional control in sexual negotiations and a greater dependency on their male sex partner's determination, without significant differences between contexts. At the same time, findings of studies about individual attributes (that did not consider the interaction of sex partners) suggest that the migrants' higher educational level may be associated with a greater perception of risk, thereby favoring the use of condoms for preventive reasons (Fernandez-Esquer et al. 2007; Organista et al. 2000).

In addition, regular condom use was positively associated with reported primary sex partner's employment status. Regular condom use was more frequent when the partner worked in the industrial, commerce or service sectors than when partner worked as self-employed informal activities or was unemployment. It is not clear, however, whether the empowerment comes from the woman's increased own feelings of empowerment or the man's increased respect for her. Some studies of migrant couples under the power theory approach suggest the hypothesis of an increased equity of the couple's power relationship based on the woman's work situation. Harvey et al. (2003) found that a woman's occupation in formal employment favored greater female empowerment in the couple's relation while Pulerwitz et al. (2002) found that female empowerment increased dialogue about the use of condoms and a greater likelihood of using them consistently.

The study also suggests that adolescents and younger migrants showed a greater likelihood of regular condom use compared to those who were older. This finding is important because of the transformations that occur as a result of the migration process to the US; adolescents and younger individuals constitute a growing percentage of migrants (15–24 year olds represented 24% of migrants from 1998 to 2000). The greater use of condoms by this group is probably associated with the fact that these migrants have a higher educational level and significant social support networks in destination communities in the US (CONAPO 2000).

Finally, regular condom use with primary sexual partners was associated with the migrant's municipality of residence in Mexico. Regular condom use was higher in the more densely populated municipality; however, there are low levels of condom use in both regions. When regular condom use is reported, it does not always imply consistent use. The low use of condoms in the communities of origin has already been reported in previous studies as a risk factor for propagating HIV and STD in rural areas (Alarcon-Segovia and Ponce de Leon-Rosales 2003). Use was greater in the urban context of Tonalá; one of the reasons that may influence use is that there is a greater dissemination of institutional preventive campaigns against HIV/AIDS and STD in the more densely populated settings in Mexico.

In general terms, the findings lead us to pose a hypothesis about the HIV/AIDS and STD prevention culture based on condom use among migrants from the different regions. The construction of gender subjectivities on transnational mobility experiences implies an exchange process of patriarchal ideologies socialized since childhood, with elements of change learned during the migration experiences. Such a construction is, however, constrained by social and economic conditions in the different spaces where migrants circulate (Gastaldo et al. 2005). On the one hand, the association of the sex partner's trust concerning regular condom use derives from a conservative ideology that favors vulnerability. On the other hand, the association of the sexual partner's employment activity and regular condom use implies a learned notion of a more equitable relationship with a sex partner who has greater power to access economic resources. At the same time, the association between the migrant's age and regular condom use also allows one to think of a situation of generational change.

The study has three important limitations: its cross-sectional study design, its non-probabilistic sampling strategy and the use of the condom use frequency variable as a proxy for risky sexual practices: First, the cross-sectional design allowed for a description of specific sexual behaviors at one moment in time. However, it did not allow us to delve into the development of interaction processes of sex partners. In order to overcome this limitation, future studies should implement a longitudinal design that would allow one to understand the successive changes to sex partner interactions (e.g., developmental processes of stable, concurrent and serial partners) and to identify changes of risk and prevention factors over time. Second, the non-probabilistic sampling strategy allowed us to conduct interviews with migrants who might have otherwise been impossible to reach. The procedure allowed us to enter a migrant population cluster, which is normally difficult to access due in part to the prevailing anxiety resulting from

the illegal nature of being undocumented while in the US. Nonetheless, this strategy did not enable us to make population generalizations and the findings should be interpreted cautiously and treated as suggestive. Third, analysis related condom use frequency variable with some characteristics of primary sexual partners as a proxy to migrant's risk sexual practices. This proxy captures some of the variance in risk taking but does not in itself completely measure the multidimensional construct of sexual risk that combines different factors to estimate whether a particular pattern of behavior is safe or risky with regard disease prevention or pregnancy (Beadnell et al. 2005).

Taking into account the study's limitations, one may conclude that interaction between migrants and their primary sex partners does not favor regular condom use with their wives, among couples with frequent sexual relations, and with partners with a lower educational level, thereby reproducing the traditional mechanism of vulnerability to spreading HIV/AIDS and STD. At the same time regular use of condoms is favored when conditions are present that influence a greater balance of power in gender relations when the sex partner is formally employed. This situation seems to show a gradual change to the traditional culture of infrequent condom use towards one of greater prevention. It can also be hypothesized that the change is due to the group of younger migrants reporting greater regular condom use. Another factor to consider is that condom rates are generally higher in localities with higher population density.

Prevention programs must strengthen the structural conditions fostering greater equality between the sexes and improve access to prevention information for adolescents and young adults. Prevention programs can also promote regular condom use on both sides of the border and take a relational approach by focusing on the social network characteristics of the partners (Valente and Fosados 2006). Prevention programs must also adapt their approaches for different demographic density, generation, type of partners and social and economic conditions of the sending and receiving communities.

**Acknowledgments** The authors of this paper thank the Research Promotion Fund of the Mexican Institute of Social Security for the funding allotted to Project FP-2003/147. We also thank the state authorities of Jalisco and Colima that provided us with the facilities to carry out fieldwork, the community personnel that served as liaisons with the community, and the interviewers who, without their experience and hard work, this work would not have been conducted.

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