

# Migration, social networks, and HIV sexual risk behaviors among involuntary bachelors in rural China

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## Introduction

1. In rural China there is an abnormally high male-biased sex ratio. The result is a large number of involuntary bachelors.
2. Rural bachelors were predicted to adopt high sexual risk behaviors (SRBs) to satisfy their sexual needs, thereby potentially fueling the sexual transmission of HIV.

## Objectives

- Compare the differences in SRBs between migrant bachelors and non-migrant rural bachelors.
- Examine the relationship between social networks and SRBs.
- Identify how social networks mediate the relationship between migration and SRBs of rural bachelors in China.

## Method and Data

- Data are from a cross-sectional questionnaire survey in which 740 male respondents who had rural household registration, had never married, and were aged 28 or older were interviewed in 2017.
- To protect the privacy of respondents, interviewers were trained to use a laptop with a CAPI (computer-assisted personal interviewing) instrument.
- The sample consisted of 740 eligible respondents from 95 counties in 20 provinces, among whom 76% were migrant bachelors and 24% were non-migrant rural bachelors.

**Table 1. Logistic regression models for engaging in commercial sex and sexual partnership concurrency**

	Commercial sex		Sexual partnership concurrency	
	Model 1 OR (SE)	Model 2 OR (SE)	Model 3 OR (SE)	Model 4 OR (SE)
Migration	2.65 (0.71)***	2.18 (0.63)**	1.63 (0.60)	1.27 (0.48)
Social network				
Attitude toward commercial sex		1.54 (0.20)**		1.40 (0.22)*
Purchasing commercial sex		1.99 (0.29)***		1.14 (0.20)
Communication on sexual life/sexual experience		1.41 (0.13)***		1.38 (0.16)**
Communication on HIV/STD		0.72 (0.08)**		0.94(0.11)
_cons	0.02 (0.02)***	0.00 (0.01)***	0.02(0.02)**	0.01(0.02)
Pseudo R2	8.04	22.88	6.78	14.22
LL	-371.16	-311.26	-211.71	-194.82
N	740	740	740	740

Standard errors in parentheses +p< 0.1 \*p< 0.05\*\* p< 0.01\*\* \*p< 0.001

**Table 2. Mediating effects of social networks on the association between migration and commercial sex**

Model	Product of Coefficients		Bootstrapping Bias-corrected 95% CI	
	Point Estimate	SE	Low	Higher
Indirect Effects				
Attitude toward commercial sex	0.06	0.04	-0.004	0.15
Purchasing commercial sex	0.12	0.05	0.04	0.24
Communication on sexual life/sexual experience	0.14	0.06	0.05	0.26
Communication on HIV /STD	-0.07	0.04	-0.17	-0.01
TOTAL	0.25	0.09	0.08	0.42

Note: 5,000 bootstrap samples N=740

## Result

1. Our data confirmed that migrant bachelors had a higher prevalence of commercial sex use than non-migrant bachelors.
2. Logistic regression reveals that both migration and social networks place the bachelors at an especially high risk of HIV transmission by increasing the chance that they engage in commercial sex, whereas only social networks are significantly associated with sexual partnership concurrency.
3. Additionally, social networks mediate the association between migration and commercial sex.

## Conclusions

- In the context of the serious gender imbalance and massive internal migration in China, the government should pay more attention to HIV sexual risk behaviors especially commercial sex among migrant bachelors.
- Our findings suggests that further interventions toward HIV prevention among bachelors should be conducted from a social networks perspective.

## References

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