

Social determinants of high-risk sexual behaviors among unmarried youth in China

Chao Guo, Lihua Pang, Lei Zhang, Xiaoying Zheng*

*Address correspondence to: Xiaoying Zheng. Tel: (+86) 10 62767766; Fax: (+86) 10 62751976.

Email: xzheng@pku.edu.cn

Abstract

Background

High-risk sexual behavior which places youth at risk for HIV infection and other STDs is associated with many social determinants, while few population-based studies focus on this issue in China. This study aims to explore the status and social determinants of high-risk sexual behaviors among unmarried youth in China.

Methods

Data Source

We obtained data from the Survey of Youth Access to Reproductive Health in China in 2009. Multistage stratified random cluster sampling with probability proportional to size was employed to derive a nationally representative sample. In the survey, face-to-face interviews were used in independent environments by anonymity and gender perspective was respected through the process. Self-administration was employed for the sensitive questions related to sex and pregnancy experience. The study protocol was reviewed and approved by Institutional Review Board of Peking University Health Science Centre. The survey comprised a total of 22,288 study subjects from 40 counties of 25 provinces in mainland China, with 98.9% efficiency.

Population

The target population were Chinese unmarried youth aged 15-24 including three subpopulations: school youth, household youth, and youth living in collective households. We employed the question that “Did you ever have sexual experience (no matter with your current/latest girl/boy friend or any others)?” to identify if a respondent ever had sexual experience and only those who have ever had sexual experience were considered in this study.

Measures

To explore the social determinants of high-risk sexual behaviors, we selected 23 possible factors based on the five aspects of Dahlgren and Whitehead's much-replicated Social Determinants of

Health Rainbow (1991): age, sex and constitutional factors; individual lifestyle factors; social and community networks; living and working conditions; general socio-economic, cultural and environmental conditions (see Figure 1).

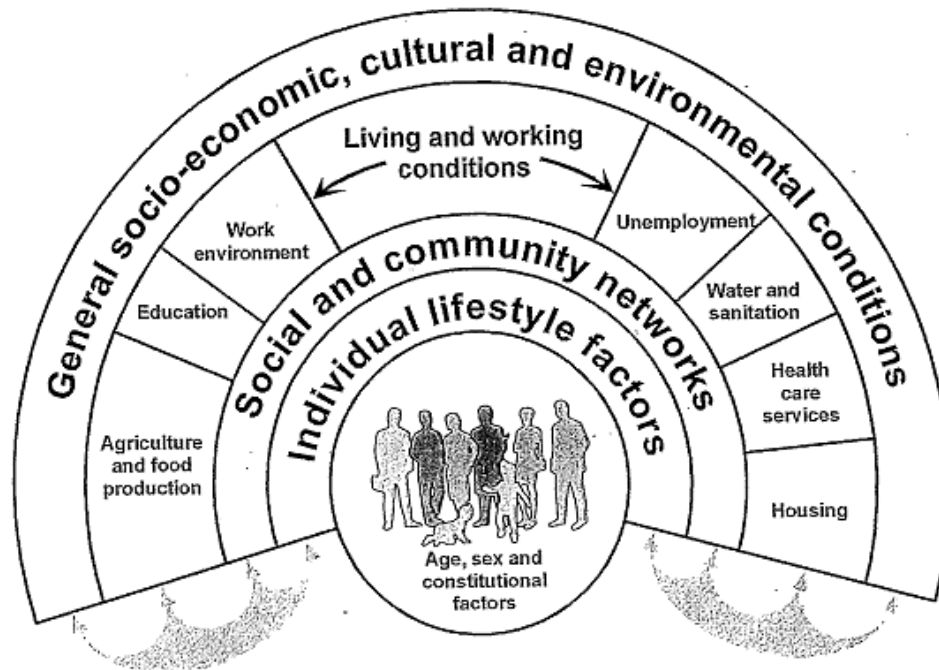


Figure 1 The main determinants of Health (Source: Dahlgren and Whitehead, 1991)

Data analysis

Sample weights constructed by standard weighting procedures allowing for the complex survey sample design were employed to adjust the data structure. The complex survey procedures in SPSS (version 16.0) were used to perform all the data analyses. Population numbers, proportions and percentages were calculated where appropriate. Multivariable logistic regression models were used to calculate the adjusted Odd Ratios (OR) and 95% confidence interval (CI). P-value less than 0.05 was set as statistically significant.

Results

Prevalence rate of high-risk sexual behaviors

The study population comprised 22,288 unmarried youth aged 15-24, among whom a total of 4985 persons have ever had sexual experience, approximately 22.4% of the total population. Among

Chinese unmarried youth with sexual experience, the prevalence rate of high-risk sexual behaviors was 78.5% (95% CI: 78.1-79.0). Table 1 listed the details of different types of high-risk sexual behaviors.

Table 1 Prevalence of of high-risk sexual behaviors

High risk sexual behaviors	Frequency	Percent (%)
The age of first sex <18	802	16.1
Not use condom in the first sexual intercourse	3201	64.2
More than one sex partners	1011	20.3
Forced to have sexual intercourse	55	1.1
One night sex	638	12.8
Pay money or gifts in exchange for sexual intercourse	285	5.7
Receive money or gifts in exchange for sexual intercourse	175	3.5
Anal copulation	258	5.2
Not use condom in the last sexual intercourse	1610	32.3
Have any behavior of the above	3916	78.5

Social determinants of high-risk sexual behaviors

Significantly more high-risk sexual behaviors was observed among males (OR: 1.39, 95%CI: 1.16~1.68), younger age groups (2.31, 1.83~2.91), any sex web/erotic book/audio visual products browsing (occasionally: 1.09, 0.88~1.35; usually: 1.44, 1.04~1.99), migrants (1.34, 1.14~1.58), partying with friends/classmates four times per month or more (1.73, 1.26~2.38), less educated (middle: 1.77, 1.55~2.02; low: 2.05,1.61~2.59), living with parents (1.52, 1.04~2.23), with less educated mothers (middle: 1.66, 1.28~2.16; low: 2.08, 1.62~2.67), not access to condom (1.64, 1.31~2.04), urban dwellers (1.33, 1.13~1.57), and non-religious persons (1.28, 1.02~1.61) (Table 3).

Table 3 The social determinants of high-risk sexual behaviors - Multiple logistic regression

Variables		OR(95%CI)
Heredity factors		
Gender	Female	1
	Male	1.42(1.23~1.65)
Age	Early adulthood	1
	Late adolescence 15-	2.21(1.81-2.69)
Individual lifestyle factors		
Sex Products	None	1
	Occasionally	1.14(0.98~1.34)
	Usually	1.48(1.09~2.02)

Social and community net		
Floating	No	1
	Yes	1.36(1.13~1.62)
Parties	Never	1
	Less than once per month	1.07(0.87~1.31)
	1-3 times per month	1.18(0.96~1.46)
	More than four times per month	1.78(1.31~2.43)
Early Life		
Education	high	1
	middle	1.81(1.52~2.16)
	low	2.12(1.13~2.12)
Live with parents	Yes	1
	No	1.54(1.13~2.12)
Mother's Education	high	1
	middle	1.65(1.08~2.53)
	low	2.08(1.35~3.18)
Health literacy and condition		
Access to condom	No	1
	Yes	1.67(1.39~2.00)
Social environment and culture		
Residence	rural	1
	urban	1.33(1.14~1.56)
Religion	Have any	1
	None	1.29(1.07~1.55)

Conclusions

Social determinants are associated with multiple risks for HIV transmission among youths. The findings of this study underscore the need to integrate social determinants and HIV prevention efforts in China and elsewhere.