The social context of sexual HIV prevention among female sex workers in China

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The recent article on scaling up programmes to prevent sexual human immunodeficiency virus (HIV) transmission is timely and addresses a compelling topic.[1] However, there are two points that should be emphasized in understanding how to organize an effective response to China's expanding sexually transmitted HIV epidemic: (i) the heterogeneity within China's commercial sex industry; and (ii) the unique organizational and social forces that constrain responses.

First, China has >6 million female sex workers (FSWs), based on conservative estimates derived from self-reporting in a population-representative sample.[2] Public health and social science research from China suggests that there are distinct typologies of FSW, each with distinct workplaces and sexual risks (Table 1).[3] Several studies show that low-income FSWs in China have a higher risk of syphilis and other sexually transmitted infections (STIs), including one systematic review of 72 studies that found a 2-fold increased risk of syphilis among low-income FSWs.[4] Yet, there have been few interventions focused on low-income FSWs and methodologically rigorous epidemiological studies are limited.

Second, some sources have described sex work as 'illegal' in China, but this does not appreciate the complex relationship between women who sell sex and local authorities. A common Chinese saying is that police have 'one eye open and one eye closed' when considering sex work. Male police and other local authorities have many incentives both to curtail and to permit commercial sex.[5] A better understanding of these local relationships informed by epidemiology and social sciences could help illuminate strategies for FSW HIV prevention.

Given the remarkable heterogeneity in sociodemographics and sexual risk among FSWs in China, simple policy solutions or importing models from Asian successes should be viewed with caution. Policy solutions for preventing heterosexual HIV that resonate with local FSWs and acknowledge the embedded and highly contextual nature of sexual risk have not been piloted in China and are far from scaling up. More research and programmatic efforts to identify and curb high-risk commercial sex are urgently needed.

Acknowledgements

Special thanks to Dr Ying-Ying Huang at the People's University in Beijing, China, who provided comments on an earlier version of this letter.

Table 1 Chinese FSW typologies and their workplace and approximate sexual risk

FSW typology (Mandarin name)	Workplace and organization	Income and demographics	Approximate sexual risk
Second wife (*e nai*)	Hired for a period by a single client, self-employed	High income	Low sexual risk, although limited data[3]
Courtesan	Works at hotel or VIP club, self-employed	High income, well-educated, young	Low sexual risk, although limited data[3]
Karyoke girl	Employed by manager at an entertainment venue	Middle income, middle-level education, young	Intermediate sexual risk,[6] although limited data
Internet girl	Solicits sex online	Variable	Limited data
Massage girl (*anmo nu*)	Employed by manager at a massage parlour	Middle income, middle-level education, young	Limited data
Beauty parlour girl (*falang xiaojie*)	Work in salon or small roadside shop, sometimes with a manager	Mid–low income, young to middle age	Higher sexual risk based on behaviours[7–9] and biomarkers[4,6,10]
Street walking (*zhanjie nu*)	Solicit on street or near hotel, self-employed or with pimp	Low income, low education, older	Higher sexual risk based on behaviours[7–9,11] and biomarkers[4,6,10]
Factor girl (*gongpeng nu*)	Solicit in construction areas, usually with pimp	Low income, low education, older	Limited data

Low-income FSW categories shaded.[3]

Funding

This research was supported by a Career Development Award [NIH FIC 1K01TW008200-01A1] and the UNC Social Science Research on HIV/AIDS in China Program [NIH NICHD R24 HD056670-01].

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doi:10.1093/ije/dyr021
Advance Access publication 15 February 2011

Football matches and acute cardiac events: potential effects of a complex psychosocial phenomenon on cardiovascular health

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Football is a highly popular sport in many countries worldwide. Debate about the association of acute cardiovascular events with watching thrilling football matches goes on. In the latest contribution, Barone-Adesi *et al.*[1] reviewed the literature on the issue and concluded that spectators are at negligibly increased or no particular cardiovascular risk whatsoever. However, a body of evidence clearly suggests the opposite. With the jury still out, we are awaiting eventual reports on the phenomenon during the World Cup in South Africa.

Research evidence

Although a recently published research with systematic review[1] and accompanying commentary[2] favours the hypothesis that the association between football matches and cardiovascular incidents, if any, is not important, a general overlook of published studies suggests that this should perhaps not be the final conclusion. Among four studies of hospital admissions for acute cardiovascular diseases,[1,3–5] two reported no association with the timing of football matches.[1,4] In contrast, admissions for myocardial infarction were increased in England for 2 days after the penalty elimination of the national team.[3] In the only prospective and otherwise methodologically superior German study,[5] a 2.7-fold increase in the incidence of cardiac emergencies was observed when the national team played; the risk was particularly pronounced in men and among patients with pre-existing coronary disease, and peaked ~2 h after the start of the match.

More convincingly, among seven studies on cardiovascular mortality,[6–12] four found an increased mortality, particularly for men,[6,10–12] and one found such a trend in a match with a penalty shoot-out decision.[8] A completely opposite association was observed during the 1998 World Cup when, in the finals, France