

## HIV VULNERABILITY AND SEXUAL RISK BEHAVIOR OF THE DRAYANG GIRLS IN BHUTAN

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### ABSTRACT

**Introduction:** The rapid socio-economic development in Bhutan has brought changes in individual lifestyles resulting in increased risk behavior of the urban population, particularly the Drayang girls. This study investigated the underlying factors influencing the sexual risk behaviour of Drayang girls and their vulnerability to HIV and Sexually Transmitted Infection (STI). The Drayangs are dance bars in Bhutan where the women perform Bhutanese songs/dances on the stage to entertain the bar patrons and making them pay for their performance.

**Methods:** This is a cross-sectional descriptive study conducted from May-July 2015 in three urban districts (Thimphu, Paro, and Phuentsholing) of Bhutan. The convenient non-random sampling method was used to recruit the respondents. We have collected the data using structured questionnaires including the taking of blood samples for HIV, Hepatitis B, and Syphilis testing.

**Results:** Of the 245 Drayang girls recruited for this study, 28.2% have engaged in transactional sex and 71.8% in non-transactional sex within last month. Condom use during transactional sex was 36.2% and non-transactional sex was 21.6%. The prevalence of HIV was 0.82%, hepatitis B 6.9%, and syphilis 2.8%. The factors such as marital status (divorced and unmarried), living arrangements, current living cities, and alcohol consumption were significantly ( $p < 0.05$ ) associated with transactional sex among Drayang girls.

**Conclusion:** Although the prevalence of HIV and STIs is low among the Drayang girls, the presence of high risk behavior with low condom use still makes them vulnerable to HIV and STIs. The study recommends putting more effort in prevention of HIV and STI by increasing awareness of HIV and STI, targeted interventions like Behaviour Change Communications (BCC), condom promotion, condom negotiation skills and access for testing and treatment of HIV and STI.

**Key words:** Draying; HIV; vulnerability; transactional sex; Bhutan

### INTRODUCTION

The national response to HIV and AIDS prevention in Bhutan dates to 1980s before the detection of the first case in 1993. As of December 2017,

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the cumulative number of 570 (296 male and 274 female) HIV cases has been detected with the majority (87%) between the ages of 15-49. Heterosexual remains the dominant route of HIV transmission in Bhutan. The increasing trends of HIV and STIs cases every year is one of the major public health concerns.<sup>(1)</sup>The rapid socio-economic development in Bhutan has brought changes in social, political and cultural lifestyles of the Bhutanese population. As a part of the modernization, entertainment venues like discos, pubs, karaoke, and Drayang has emerged. The Drayangs are dance bars in Bhutan where the women perform Bhutanese songs/dances on the stage to entertain the bar patrons and making them

pay for their performance.

The changes in lifestyles of the urban populations with such entertainment trends have increased individual's risk behaviour, particularly among the Drayang girls. The emergence of sex worker and growing transactional among the young girls in the entertainment venues were recorded in General Population Survey (GPS) 2006, Behavioural Surveillance Survey (BSS) 2008 in Bhutan.<sup>(2,3)</sup> The GPS (2006) also reported that one-fifth of all the married people have engaged in extramarital sex within a year. This was higher among the urban areas (23%) as compared to the rural areas (14%).<sup>(2)</sup> The qualitative study among Drayang girls by R. Lorway (2011) also showed a similar result.<sup>(4)</sup> The Sexual Behavioural Network Study (SBNS) 2011 further revealed a large proportion (49%) of bar patrons in Phuentsholing and Thimphu had engaged in multiple sexual relationships in 12 months prior to the survey with an average of 2.5 partners. The study also confirmed risky sexual behaviour as a result of alcohol consumption in the entertainment venues.<sup>(5)</sup>

The findings from different qualitative studies and the reports in the local media<sup>(6-9)</sup> on the issues of transactional sex among the Drayang girls has made many to perceive that these girls are at a higher risk of HIV and STIs infection. These negative perceptions of the society have brought some social stigma against their profession and may prevent them from seeking timely health care services including HIV Testing and Counselling (HTC).<sup>(10)</sup> The global evidence also shows that the stigma and discrimination among sex workers and people living with HIV are one of the factors for failure in seeking timely treatment.<sup>(11-13)</sup> However, there is very little quantitative information to understand the HIV vulnerability and sexual risk behaviour of the

Drayang girls in Bhutan. Therefore, this study will explore the underlying determinants that influence the sexual risk behaviour of the Drayang girls for HIV and STIs infection.

## METHODOLOGY

### Design and settings

This is a cross-sectional descriptive study conducted from May-July 2015 using structured questionnaires and taking blood samples. The major cities (Thimphu, Phuentsholing, and Paro) having more numbers of Drayangs were selected. The exact number of Drayang can be determined from the Bhutan Infocomm and Media Authority who issues the operational license for its establishment. As shown in Figure 1. The conceptual framework of Kembo J (2012) was adapted to guide the overall analysis.<sup>(14)</sup> The original concept used in this model is to understand how the underlying determinants influence the proximate determinants for certain health outcomes. During the process of modification, the new variables (knowledge, alcohol, living arrangements, living city and work duration) were added to the framework without diminishing the original concept.

#### a. Study population and sampling

The study population includes the young girls and women working in the Drayangs. The convenient non-random sampling technique was used to recruit study respondents. Criteria were set to sample the target population: (a) respondents should be equal to or above 18 years of age, (b) be present in the selected Drayang; and (c) fulltime singer/dancer in the selected Drayang; and (d) provide consent to participate in the study without coercion. As shown in Figure 2. Out of 35 Drayangs in Bhutan located

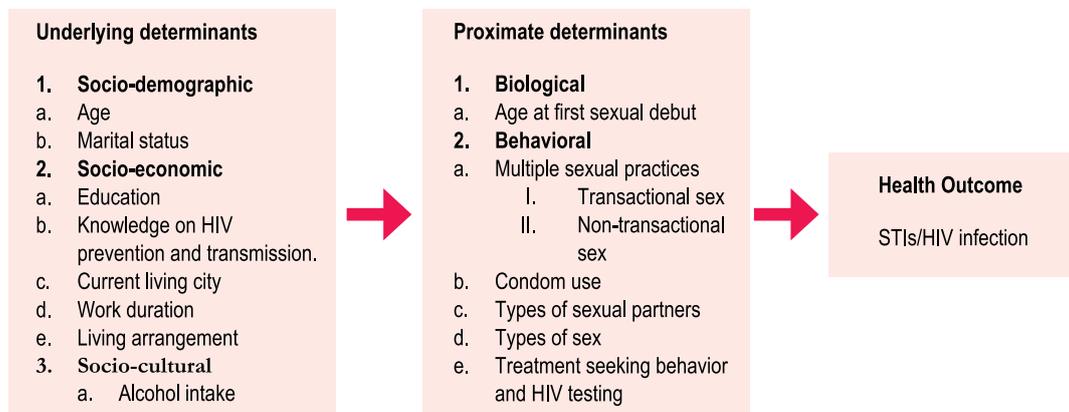


Figure 2. Conceptual framework for factors influencing the risk behavior of Drayang girls in acquisition and transmission of HIV/STIs infection in Bhutan. Source: Adapted from Kembo J (2012).

in seven districts, we have selected three major cities of Bhutan where 80% of the total Drayang girls are located. Out of 308 registered Drayang girls in 28 Drayangs, 245 were selected who met the selection criteria.

The research team collaborated with the Health Information and Service Centre (HISC) counsellors working with the Drayang girls on the preventions of HIV and STIs. The HISC counsellors coordinated with the respective Drayang owners/managers and discussed the participation of Drayang girls. Accordingly, the respective Drayang owners/managers and the HISC counsellors recruited the girls for a general briefing. All respondents were briefed about the study objectives and recruited into study only after obtaining consent.

#### **b. Data collection tool**

A structured questionnaire consisting of 39 variables was used to collect the information on the socio-demographic, economic, cultural, biological and sexual behaviour of the Drayang girls. The interval scale questions were used instead of dichotomous questions to overcome the sensitivity of the subject. Further, the questions pertaining to past sexual history was limited to one month prior to the survey to allow the participants recall accurately. We have developed questionnaires by keeping the general issues at the beginning and sensitive topics towards the end.

#### **c. Data processing and analysis**

The data collected was double entered, cleaned and checked for validity. HIV test was carried out using rapid diagnostic test kits with the final confirmatory test using enzyme-linked immune sorbent assay (ELISA). Syphilis test was conducted using TPHA while rapid test kits were used for hepatitis B testing. Descriptive statistics were analyzed using Epi Data software and association between variables were tested using Chi-square Test. The Fisher Exact Test was done using the online program.<sup>39</sup>

#### **d. Ethical considerations**

The approval from the Research Ethics Board, Ministry of Health, Bhutan were obtained. Informed consent was sought from the respondents and data collected were secured under lock and key. Confidentiality of HIV test results was maintained by protecting the client's identity using code numbers and giving result in person by the HISC counsellors.

#### **e. Quality assurance**

The trained VCT counsellors and the certified Laboratory Technicians from Royal Centre for Disease Control (RCDC), MoH were trained on the research protocol, data collection tools, and data management before the conduct of the study. The data collection tools were pretested among the similar population in Thimphu and change incorporated.

## **RESULTS**

The findings from the survey were presented based on the conceptual framework used in this study to see how underlying determinants influence the proximal determinants of the Drayang girls for HIV and STIs.

#### **Underlying determinants**

As mentioned under the study population and sampling, out of 308 Drayang girls, 245 of them have been included in the study with the mean age of 22 years. The socio-demographic characteristics of the Drayang girls showed that majority 71.4% (n=175) of the respondent falls within the age bracket of 18-24 years and 43.7% (n=107) are married, 29.8% (n=73) divorced while 26.5% (n=65) were unmarried. Some 42.4% (n=104) had middle-secondary education, 31% (n=76) with no-education and 22.1% (n=65) has completed primary education. The mean working duration in the Drayang by the girls is 8.4 months.

**Table 1.** Relationship between transactional sex by socio-demographic, economic and cultural factors of the Drayang girls in three cities\* of Bhutan, 2015.

Demographic Characteristics	Transactional Sex			Chi-Square ( <i>P-Values</i> )
	Total (N=245)	Yes (n=69)	No (n=176)	
	N	%	%	
Age group				
18-24 years	175	28.6	71.4	0.823
25-34 years	70	27.1	72.9	
Marital status				
Married	107	11.2	88.8	0.000
Unmarried	65	40.0	60.0	
Divorced	73	42.5	57.5	
Economic Characteristics				
Education				
No education	76	26.3	73.7	0.177
Primary	65	36.9	63.1	
Middle secondary	104	24.0	76.0	
Place of work				
Thimphu	116	25.0	75.0	0.014
Paro	51	17.6	82.4	
Phuntsholing	78	39.7	60.3	
Work Duration				
<=8 Months	161	29.2	70.8	0.620
>8 Months	84	26.2	73.8	
Living arrangement				
Self	44	40.9	59.1	0.001
Relatives	41	36.6	63.4	
Friends	66	33.3	66.7	
Hostel	23	30.4	69.6	
others	71	9.9	90.1	
Cultural characteristics				
Alcohol intake				
Yes	127	35.4	64.6	0.009
No	118	20.3	79.7	

Key:\*Thimphu, Paro and Phuentsholing

Table 1 shows socio-demographic, socioeconomic and socio-cultural characteristics of the respondents and their association with transactional sex. The divorced women are significantly more likely ( $p=0.00$ ) to engage in transactional sex as compared to unmarried and married (42.5% vs 40% and 11.2%). Girls working in bigger cities like Thimphu (39%) and Phuentsholing (25%) are more likely ( $p=0.014$ ) to engage in transactional

sex compared to those working in smaller towns like Paro (17%). Girls who managed their own accommodation (40.9%) were most likely to engage in transactional sex as compared to their counterparts who lived with their relatives (36.6%), friends (33.3%), hostels (30.4%), and others (9.9%). Apparently, girls who consumed alcohol (35.4%) are most likely to engage in transactional sex than those who remained sober (20.3%).

Table 2. Biological & behavioral characteristics of Drayang girls in three cities* of Bhutan, 2015.								
Behavioral Characteristics	City							
	Thimphu		Paro		P/ling**		Total	
	n	%	n	%	n	%	N	%
<b>Age at first sexual experiences (N=245)</b>								
10-15 years	18	15.5	7	13.7	10	12.8	35	14.3
16-20 years	87	75.0	31	60.8	61	78.2	179	73.1
21-25 years	11	9.5	13	25.5	7	9.0	31	12.7
<b>Total</b>	116	100.0	51	100.0	78	100.0	245	100.0
<b>Mean Age</b> 17								
<b>No. of transactional sex in last 30 days (n=69)</b>								
<=3 times	14	48.3	3	33.3	13	41.9	30	43.5
>3 times	15	51.7	6	66.7	18	58.1	39	56.5
<b>Total</b>	29	100.0	9	100.0	31	100.0	69	100.0
<b>No. of no- transactional sex in last 30 days (n=176)</b>								
<=3 times	35	40.2	16	38.1	23	48.9	74	42.0
>3 times	52	59.8	26	61.9	24	51.1	102	58.0
<b>Total</b>	87	100.0	42	100.0	47	100.0	176	100.0
<b>Condom use during transactional sex in last 30 days (n=69)</b>								
All of the time	14	48.3	1	11.1	10	32.3	25	36.2
Some of the time	5	17.2	2	22.2	8	25.8	15	21.7
Not Used	10	34.5	6	66.7	13	41.9	29	42.0
<b>Total</b>	29	100.0	9	100.0	31	100.0	69	100.0
<b>Condom use during no-transactional sex in last 30 days (n=176)</b>								
All of the time	21	24.1	5	11.9	12	23.9	38	21.1
Some of the time	22	25.3	15	35.7	12	26.1	49	28.0
Not used	44	50.6	22	52.4	23	50.0	89	50.9
<b>Total</b>	87	100.0	42	100.0	47	100.0	176	100.0
<b>Frequency of alcohol drinking per week in last month (n=127)</b>								
>=3 times/week	11	16.4	5	25.0	13	32.5	29	22.8
<3 times/week	56	83.6	15	75.0	27	67.5	98	77.2
<b>Total</b>	67	100.0	20	100.0	40	100.0	127	100.0
<b>Sex under alcohol intoxication (n=127)</b>								
Yes	31	46.3	9	45.0	17	42.5	57	44.9
No	36	53.7	11	55.0	23	57.5	70	55.1
<b>Total</b>	67	100.0	20	100.0	40	100.0	127	100.0
<b>Condom use during sexual intercourse under alcohol intoxication (n=57)</b>								
Yes	7	22.6	2	22.2	3	17.7	12	21.1
No	24	77.4	7	77.8	14	82.4	45	78.9
<b>Total</b>	31	100.0	9	100.0	17	100.0	57	100.0

Key: \*Thimphu, Paro and Phuentsholing, \*\* Phuentsholing.

### Proximal determinants

Table 2 shows the biological and behavioural characteristics of the respondents. The mean age for the first sexual debut was 17 years and 73.1% of them had first sexual experience between the ages of 16-20 years whereas 14.3% have experienced first sexual intercourse between 10-15 years. Out of 245 sexually active females, 28.2 % (n=69) reported to having engaged in transactional sex (sexual intercourse between men and women, where exchange of money or materials goods takes place) and 71.8% (n=176)

non-transactional sex (marital, non-marital and extramarital sex without the exchange of money or materials good) during the last thirty days. However, both categories of girls had more than three sexual partners with transactional sexual category comprising 56.5% and non-transactional sexual category reporting 58.0%. The condom uses among those engaging in transactional sex and those not engaging in transactional sex was 36.2% and 21.1% respectively. Fifty-Seven of the respondents reported having engaged in sex under the influence of alcohol and their condom use was 21.1%.

Table 3. Prevalence of HIV and STIs among Drayang girls in three cities*, Bhutan, 2015.								
Indicators	Name of City							
	Thimphu (n=115)		Paro (n=51)		P/ling** (n=78)		Total (N=245)	
	n	%	n	%	n	%	N	%
A. Result from the onsite testing								
HIV								
Positive	1	0.9	0	0	1	1.28	2	0.82
Negative	114	99.1	54	100	77	98.7	243	99.2
Hepatitis B								
Positive	8	7.0	4	8	5	6.41	17	6.94
Negative	107	93.0	47	92	69	88.5	238	91.9
Syphilis								
Positive	2	0.9	0	0	6	7.69	7.0	2.86
Negative	113	98.3	51	100	72	92.3	238	97.1
B. Result from the survey questionnaires								
Any STIs in last 12 months								
Yes	31	27	7	13.7	7	8.97	45	18.4
No	84	73	44	86.3	71	91.0	200	81.2
Bad abnormal discharge in last 12 months (n=45)								
Yes	25	80.7	7	100	4	57.1	36	80.0
2 No	6	19.4	0	0	3	42.9	9	20.0
Sore or ulcer infection near vagina/anus (n=45)								
Yes	6	19.4	4	57.1	1	14.3	11	24.4
No	25	80.7	3	42.9	6	85.7	34	75.6

Key: \*Thimphu, Paro and Phuentsholing, \*\*Phuentsholing

### Health outcome (HIV and STIs vulnerability)

Table 3 illustrates the HIV and STIs prevalence. The point prevalence of 0.82% was determined for HIV, 6.94% and 2.86% for hepatitis B and Syphilis respectively. However, when asked about any STIs in last twelve months 18.4% (n=45) of them

reported having experienced at least one form of STIs. Out of 45 who experienced STIs in last 12 months, 36 of them reported having experienced abnormal discharge from their vagina and 11 told that they had developed sore or ulcer in genital region.

## DISCUSSION

This quantitative study is among the first of its kind to examine the underlying factors that increase the vulnerability of the Drayang girls for HIV and STI including the determination of point prevalence of HIV and STIs. The modified conceptual framework of Kembo J, 2012, guided the analysis of underlying factors influencing the proximal determinants of HIV and STIs infection. Although the authors have decided to publish the manuscript after one year and eight months from the date of conduct of the study, the findings are, still relevant, as no other researchers have conducted such studies so far. Moreover, the growth of Drayang in Bhutan has remained stagnant over the period but there was a slight increase in the number of Drayang girls (370 in 2015 to 400 in 2017). Concerning the situation of HIV in Bhutan, the number of cases has increased from 460 in 2015 to 570 in 2017 with no cases reported from the Drayang girls.<sup>(1)</sup> The major route of transmission is predominated heterosexual route of transmission.

One of the interesting findings that the study revealed was the low prevalence of transactional sex as compared to non-transactional sex. Therefore, the assumption that all Drayang girls would engage in transactional sex was not supported as evident from the findings, though the answers were self-reported. Nevertheless, the prevalence of 28.2% transactional sex with low condom use (36.2%) indicates an existence of risky sexual behaviors among the Drayang girls. Our finding was consistent with findings of the qualitative study by R. Lorway (2011), SBNS (2011), FA (2015) among the Drayang and other bar girls where some of the respondents mentioned about their engagement in transactional sex.<sup>(4,5,16)</sup> Further, the BSS (2008) also found that 32.5% of 77 bars girls consisting of waitresses and singers in Thimphu and 52.0% of 25 of them in Phuentsholing had engaged in transactional sex one month prior to the survey. In both the case, the consistent condom use was 44.4% and 38.5% respectively. This shows the high possibility of some Drayang girls engaging in transactional sex owing to some similarity in their work.

The findings also depict multiple sexual partners among the Drayang girls with non-transactional sex group. For example, 42% of the Drayang girls had

engaged in multiple sexual partners with more than three partners within a month and the consistent condom use was 21.1%. When comparing the findings with GPS (2006) in Bhutan it was found that out of 788 urban females only 1.6% have engaged in multiple sexual partners in last 6 months prior to the survey and the consistent condom use was just 23.3%.<sup>(2)</sup> This illustrates higher multiple sexual partners with low condom use among the Drayang girls as compared to the general urban females thus making them more vulnerable to HIV and STIs. The studies from different settings also showed that those women who are in multiple sexual relationships are more likely to face several risk factors for HIV and STIs like early sexual debut, longer duration of sexual activity, remaining with a promiscuous partner, concurrent partnership, and sexual harassment.<sup>(17-22)</sup> Therefore, introducing Behaviour Change Communication (BCC) programs can be one important aspect to enhance the condom negotiation skills of the Drayang girls.<sup>(23,24)</sup> However, this study has limitations to understand the underlying factors for low condom use by the Drayang girls thus deserves further research.

In terms of socio-demographic characteristics, the divorced and unmarried women are engaged more in transactional sex as compared to married women. The result is consistent with the findings from the qualitative study by R. Lorway (2011) where the majority of those who engaged in transactional sex was from the divorced and unmarried categories of respondents.<sup>(4)</sup> We do not know the specific reason for their engagement in transactional sex but we speculate that it may be due to their financial hardship as a single bread earner. In general, the global studies in different settings also showed that the divorced and unmarried women are more likely to face social challenges related to poverty, income and gender inequality thus exposing them to various risk including HIV and STIs.<sup>(20,25-27)</sup> However, we cannot generalize these findings for other divorced women in Bhutan who are not working in Drayangs with same sexual behaviour as the study was confined to women who were working in the Drayang, and from them a small subset was divorced. Therefore, an in-depth study is required to understand the prevalence of transactional sex among Bhutanese women in general for an appropriate public health action.

Respondent's age was not associated with the engagement in transactional sex. The studies conducted by Singh and colleagues also found that no association between age and transactional sex among the women in Zambia.<sup>(18)</sup> This shows that age is not only the sole factor for their engagement in transactional but it may also depend on other factors. Therefore, despite the differences in their age all of them are equally vulnerable to risky sexual behaviours.

Under the socioeconomic factors, the living arrangements and city in which the respondent lived was significantly associated with engagement in transactional sex. This may indicate that those Drayang girls who lived in bigger cities and have to pay their own house rent are more engaged in transactional sex as compared to those staying in hostels (free accommodations provided by Drayang owners) and with others (husband, parents, and relatives) who do not have to pay the house rents and other expenses. The R. Lorway's qualitative study among the Drayang girls also cited that the financial hardship and difficulty in paying the soaring house rents in the urban cities as one of the reasons for engaging in transactional sex.<sup>(4)</sup> The other reason could be due to greater demand for sex in the entertainment sectors where alcohol was available. The study by Dunkle and Aral also revealed that economic stresses and low wages, unemployment, and poverty as some reasons for transactional sex by divorced and unmarried women.<sup>(27,28)</sup> Therefore, the economic hardship can be one factor that is likely to increase the risky sexual behavior of Drayang girls in relation to HIV and STIs infection. As a result, the provision of free accommodation like hostels by the Drayang owners would ease their financial hardship and can contribute meaningfully to the overall growth of the Drayang business while preventing them from risky sexual behaviour.

Intake of alcohol was significantly associated with engagement in transactional sex. These findings are consistent with the results of R. Lorway's study, where it mentioned that both the Drayang girls and their bar patrons drink alcohol to socialize and subsequently connects with the potential sexual partners.<sup>(4)</sup> The nationally representative survey in South Africa also shows that alcohol-drinking women are two times likely to report transactional sex.<sup>(29)</sup> The study in Vietnam among the youths and

another study by Cherish MF also established a correlation between alcohol intake and unsafe sex.<sup>(30, 31)</sup> Therefore, the chances of alcohol influencing the risky sexual behaviour of the Drayang girls are high. However, there is a limitation to this finding because the study could not confirm whether these girls are drinking alcohol while at work or after their work. Therefore, understanding how occupational and work environment influence alcohol drinking and sexual behaviour of Drayang girl is important.

The point prevalence of HIV is low among the Drayang girls. One of the reasons for low HIV prevalence among the Drayang girls may be due to the current low adult HIV prevalence in the general population, which is 0.21%.<sup>(32)</sup> Other reason could be due to their shorter stay in Drayang as a worker may have protected them from HIV infection but this needs further validation.

This study has some limitations. First, the mixed methods would have suited well for a sensitive topic instead of just relying on quantitative method. The purposeful or response-driven sampling would be more appropriate than convenient sampling for sensitive topics. The use of convenient sampling method may have caused sampling bias despite the high response rate (80%) and we cannot generalize the results. The conceptual framework was not used to develop the study questionnaire rather it has been used only to analyze the results. Therefore, important variables like monthly income, sexual concurrency, and intergenerational sex were not included. The study mostly relied on structured and close-ended questions. All questions related to 'transactional sex' were phrased as 'commercial sex'; and 'sex under alcohol influence' as 'sex after alcohol'. All these may have resulted in information and consequences bias.

## CONCLUSION

This study, focusing on Drayang girls shows a low prevalence of HIV and STIs. However, the presence of high-risk behaviour with low condom use still makes them vulnerable to HIV and STIs. The study recommended putting more effort to the current HIV/STIs interventions by increasing awareness of HIV and STI, targeted interventions like Behaviour Change Communications (BCC), condom promotion, condom negotiation skills and access for testing and treatment of HIV and STI among the Drayang girls.

## CONFLICT OF INTEREST

None

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