Original article

Knowledge and Preventive Practices Regarding COVID-19 Infection among the Female Commercial Sex Workers during the Pandemic

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Abstract

Background: Prevention is the best way to manage a pandemic like COVID-19. Commercial sex workers (CSWs) are one of the most vulnerable groups of population on COVID-19 infection. Their preventive measures against COVID-19 depends on the knowledge and practices against the infection.

Methods: A cross-sectional study commenced to assess the level of knowledge and preventive practices about prevention of COVID-19 infection among the 326 female CSWs in the Kandapara village, Tangail.

Results: The mean age of the CSWs was 29.0 ±6.6 years. Most of them were divorced ((42.6%) and illiterate (63.5%). The majority of CSWs (94.5%) had good knowledge, but their practices were poor (33.4%) against COVID-19 infection and its prevention. There were significant associations found between age group), their education and average monthly income (p<0.05).

Conclusion: The level of practices of female CSWs against COVID-19 prevention was not as good as their level of knowledge. Incentives, workshops and health education regarding conduct of clients with precautions, counseling sessions, and social supports will encourage them to follow COVID-19 prevention guidelines, which potentially reducing their life risk and overall Corona virus transmission.

Introduction

In December 2019, Corona virus disease (COVID-19) was initially reported in Wuhan, China. The disease spread quickly to neighboring countries, and the World Health Organization (WHO) declared it a pandemic in March 2020. The pandemic's impact has already been extended to the socio-economic sector, education sector, human behavior, mental health, governance, and technology. COVID-19 has had a massive influence on developing countries, both directly and indirectly, and it has become a burning issue to adopt effective measures.[1]

The risks of developing COVID-19 among sex workers in urban areas are most. Sex workers are more likely to get infected with COVID-19 due to unstable housing, IV drug use, increasing criminalization, and restricted access to care.[2]

Commercial sex workers are those vulnerable populations who are working during this current pandemic and are forced to work in risky situations in order to survive and feed their families.[3] The accuracy of these beliefs may determine different practices about prevention and could be different in different population. In many cases, the absence of knowledge, or if most of the medical-related beliefs are actually misconstrued or false, these may carry possible threat. Attitudes and knowledge about COVID-19 concluded that attitudes towards government measures to contain the epidemic were highly associated with the level of knowledge about COVID-19.[4]

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Since COVID-19 was officially announced as pandemic, it has become a global public health threat. Prostitution is an occupation that involves in-person meeting with different individuals with no social distancing.[5] Sex workers are the most vulnerable population in this COVID-19 pandemic situation due to direct physical contact with their clients. As their profession doesn't support physical distancing, they are also getting infected by COVID-19. Though they work as CSW, but they also perform day to day activities like child bearing, going to shopping, meeting with friends and family etc. So, their knowledge and practices to prevent COVID-19 are as much as necessary like other people. This study might be helpful to understand the necessity for improving knowledge and practice level among female commercial sex workers.

Methodology

Study design and settings

This cross-sectional study was conducted to assess the level of knowledge and preventive practices for the prevention of COVID-19 infection among the female CSWs in the Kandapara village, Tangail. This is one of the oldest and second largest brothels in Bangladesh.

Data collection methods

Data were collected from the purposively selected 326 CSWs, who were resided in the selected village and involved in the occupation. A pretested semi-structured questionnaire was used to collect data through the face-to-face interviews during the study period from January 2021 to December 2021. Pretested was done in the Ganginarpar brothel, Mymensingh.

Data analysis

A unique code number was used for each respondent during data enumeration. The data were checked, cleaned, and coded for analysis in the IBM SPSS v23. Both descriptive and inferential statistics were used to find out the levels and associations between the imperative variables. The results were presented in tables and charts.

Level of knowledge

Knowledge was assessed by asking 10 questions; which were marked as '1' for yes and '0' for no or don't know. The levels of knowledge were considered as good for the scores 8-10, moderate for 6-7, and poor for ≤5.

Level of practices

Preventive practices were assessed by asking 11 questions; which were marked as '1' for yes and '0' for no or don't know. The levels of practices were considered as good for the scores 18-22, moderate for 14-17, and poor for ≤13.

Ethical approval

Informed written consent was taken from each respondent and confidentiality of all information was maintained strictly. Ethical approval for the study was obtained from the Institutional Review Board (IRB) of the National Institute of Preventive and Social Medicine (NIPSOM), Dhaka 1212, Bangladesh. (Reference ID: NIPSOM/IRB/2021/18)

Results

Table 1 denotes that the mean age of the CSWs was 29.0 ±6.6 years, where most of them (45.1%) were from the age group 26-35 years. More than two-fifths (42.6%) were divorced and one-fourth (25.5%) were unmarried. The educational status of the majority CSWs (63.5%) was illiterate. More than one-third of respondents (38.3%) had an average monthly income of less than 10,000 Bangladeshi taka (BDT).

Table 1: Socioeconomic characteristics of CSWs (n=326)

Characteristics	n(%)
Age (years)	
15-25	123(37.7)
26-35	147(45.1)
36-45	56(17.2)
Mean±SD	29.0± 6.6
Marital status	
Unmarried	83(25.5)
Married	90(27.6)
Divorced	139(42.6)
Widowed	14(4.3)
Educational status	
Illiterate	207(63.5)
Primary	79(24.2)
Secondary	37(11.3)
Graduate and above	3(0.9)
Average monthly income (BDT)	
5,000-10,000	125(38.3)
10,001-20,000	106(32.5)
20,001-30,000	20(6.1)
30,001-40,000	60(18.4)
40,001-50,000	15(4.3)

Table 2 exhibits that, most of them knew about the causes, route of transmission, symptoms, preventive measures, vaccination and treatment about COVID-19. Regarding practices, nine-tenths (90.8%) covered the nose and mouth with tissue or a handkerchief during sneezing and coughing. Most of them avoided touching the face (eyes, nose, and mouth) with contaminated hand (96.3%), washed hands with soap and water quickly after coughing or sneezing or touching contaminated objects (96.0%) and wearied facemask in crowds (96.6%).

Table 2: Knowledge and Practices of CSW's regarding COVID-19 infection and its prevention (n=326)

	Responses	n(%)
Knowledge on COVID-19 infection and its prevention		
Heard about COVID-19	Yes	326(100)
Heard about COVID-19 pandemic	Yes	326(100)
Knowledge about causes of COVID-19	Yes	286(87.7)
Knowledge about COVID-19 is transmitted by close contact with an infected person	Yes	302(92.6)
Knowledge about fever, cough, shortness of breathing are symptoms of COVID-19	Yes	309(94.8)
Knowledge about washing hands with soap water	Yes	318(97.5)
Knowledge about wearing facemask is an effective prevention strategy	Yes	318(97.5)
Knowledge about, at this moment, is there any cure for COVID-19	Yes	301(92.3)
Knowledge about vaccination against COVID-19	Yes	323(99.1)
Knowledge about COVID-19 is life-threatening	Yes	317(97.2)
Practices against COVID-19 infection and its prevention		
Covering nose and mouth with tissue or handkerchief during sneezing and coughing	Yes	296(90.8)
If tissue or handkerchief is not available do you cough or sneeze on your upper sleeve	Yes	289(88.7)
Avoid touching face (eyes, nose, mouth) with contaminated hand	Yes	314(96.3)
Washing hands with soap and water quickly after coughing or sneezing or touching contaminated objects	Yes	313(96.0)
Wearing facemask in crowds	Yes	315(96.6)
Using hand sanitizer frequently	Yes	230(70.6)
Maintaining physical distance at least 1 meter from others	Yes	110(33.7)
Encourage co-worker to wear facemask	Yes	186(57.1)
Clients using facemask during sexual encounter	Yes	126(38.7)
Taking vaccine available in Bangladesh	Yes	95(29.1)
Practices about completing doses of vaccine	Yes	82(25.2)

Figure 1 portrays that the majority of CSWs (94.5%) had good knowledge, 4.0% had moderate knowledge and 1.5% had poor knowledge regarding COVID-19 infection and its prevention. Other-side, 34.0% had good practices, 32.5% had moderate practices and 33.4% had poor practices against COVID-19 infection and its prevention.
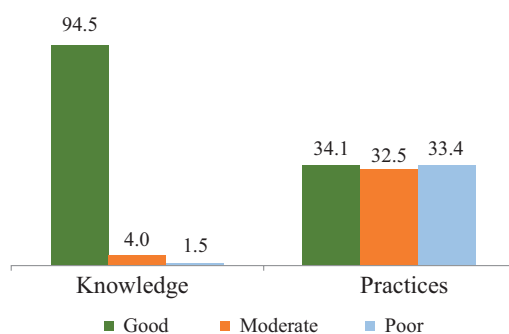

Figure 1: Level of the knowledge and practices of the CSW's (n=326)

Figure 2 shows three-tenth (30.9%) of respondents had poor practices level despite having good knowledge about prevention.
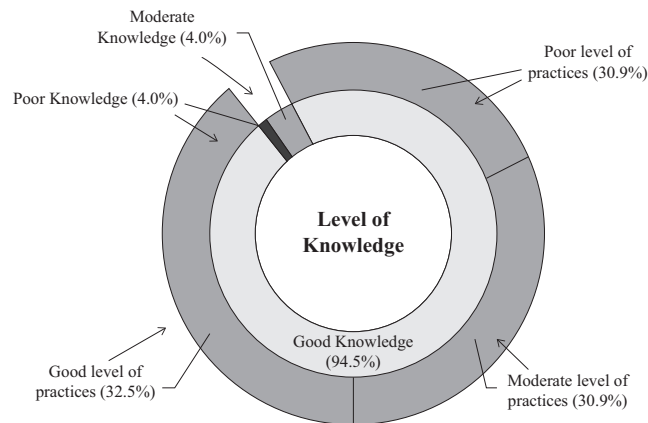
Figure 2: Level of practices among the respondents had good knowledge

Table 3 interprets the associations of different variables with the level of practice. There were significant associations found between age group (p=0.06), their education (p=0.02) and average monthly income (p=0.000).

Table 3: Association of level of practices with different variables

Variables	Level of practice				χ² value	p-value
	Good	Moderate	Poor	Total		
	n(%)	n(%)	n(%)	n(%)		
Age group (years)						
15-25	33(26.8)	37(30.1)	53(43.1)	123(100)	9.01	0.06
26-35	56(38.1)	51(34.7)	40(27.2)	147(100)		
36-45	22(39.3)	18(32.1)	16(28.6)	56(100)		
Marital status						
Unmarried	24(28.9)	24(28.9)	35(42.2)	83(100)	7.24	0.29
Married	33(36.7)	33(36.7)	24(26.7)	90(100)		
Divorced	48(34.5)	43(30.9)	48(34.5)	139(100)		
Widowed	6(42.9)	6(42.9)	2(14.3)	14(100)		
Educational status						
Illiterate	79(38.2)	65(31.4)	63(30.4)	207(100)	15.77	0.02*
Primary	25(31.6)	28(35.4)	26(32.9)	79(100)		
Secondary	7(18.9)	10(27.0)	20(54.1)	37(100)		
Graduate and above	0(0.0)	3(100)	0(0.0)	3(100)		
Average monthly income (BDT)						
5,000-10,000	48(38.4)	48(38.4)	29(23.2)	125(100)	25.28	0.000*
10,001-20,000	37(34.9)	38(35.8)	31(29.2)	106(100)		
20,001-30,000	7(35.0)	5(25.0)	8(40.0)	20(100)		
30,001-40,000	13(21.7)	12(20.0)	35(58.3)	60(100)		
40,001-50,000	6(40.0)	3(20.0)	6(40.0)	15(100)		
Level of knowledge						
Good	106(34.4)	101(32.8)	101(32.8)	308(100)		†0.82
Moderate	4(30.8)	4(30.8)	5(38.5)	13(100)		
Poor	1(20.0)	1(20.0)	3(60.0)	5(100)		

*Statistically significant value　　†Fisher's exact test value

Discussion:

A study was conducted among Bangladeshi individuals, where three fifths of the respondents 61.0% completed Bachelor and half of the respondent's 50.0%) income was above 30000.[7] In a similar study, among 604 CSWs majorities of the respondents 86.8% were single.[8]

A study conducted on KAP in two Pakistani University populations where most of the respondents heard about ongoing corona virus disease (99.8%) and had correct knowledge about causes of COVID-19 (94.2%) which is quite similar to this study.[9] Majority had correct knowledge about mode of transmission from close contact with an infected person (94.7%), symptoms (93.0%) of COVID-19.[9]

Most of the respondents had correct knowledge about preventive measures like hand washing with soap and water (87.5%), wearing facemask (97.5%).[10] In a study more than half of the respondents hadn't knowledge about availability of treatment (54.1%) and one-third hadn't correct knowledge about vaccination (33.4%) of COVID-19 which is quite different from this study.[9] Two-fifths (41.3%) said they always covered nose and mouth during sneezing and coughing and one-third (32.7%) said they sometimes practiced coughing and sneezing on upper sleeve, which is very low in contrast of this study.[11] More than one-third of the respondents always avoided touching face (eyes, nose, and mouth) with contaminated hands (38.7%), washed their hands with soap and water quickly after coughing or sneezing or touching contaminated objects (34.9%) and used facemask in the crowds (35.6%).[9] Majority of the respondent (68%) practiced social distancing at least 1 m.[11] More than half of respondents (58.8%) didn't encouraged co-workers to wear facemask and 45.2% said that they didn't use facemask during sexual encounter.[8]

Another study was conducted in a community in Saudi Arabia found that four-fifth (80.8%) of the respondents had good knowledge about prevention of COVID-19 which was quite similar to this study and revealed that nine-tenth of the respondents (90.83%) had precautionary measures against COVID-19, which indicate higher level of good practice than this study.[12]

Conclusion

A portion of female in our country chooses prostitution as their profession. This study revealed that majority of the female commercial sex workers (FCSWs) had good knowledge about COVID-19 transmission, prevention by using facemask, life-threatening and vaccine availability. In case of practices, majority used facemask, practiced coughing or sneezing on upper sleeve, washing hands, used hand sanitizer. But maintaining physical distance, using facemask during sexual encounter was not possible for all due to their professional requirements. A small amount of respondent took vaccine and not everyone completed vaccine doses. In this study we found that, they had good level of knowledge about prevention but didn't practice in a satisfactory level.

Conflict of interest: There is no conflict of interest by all authors.

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