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Letter to the Editor

Does COVID-19 pandemic affect sexual behaviour? A cross-sectional, cross-national online survey



Dear Editor,

Since the start of 2020, a shift was observed worldwide regarding social interactive behaviors as a result of the outbreak of COVID-19 (World Health Organisation, 2020). Since the beginning of April 2020, third of the earth population are under some kind of lockdown enforced by their government which means their movement is being restricted actively, in India, 1.3 billion people are ordered to stay inside, 760 million in China, more than 200 million in the USA, 300 million in Europe and UK are under lockdown, several countries in Latin America and Asia are also under severe lockdown (Buchholz, 2020).

Lockdown due to COVID-19 affects every aspect of daily life, but it is not clear if it affects the sexual habits of married partners. There is a paucity of literature regarding changes in sexual behavior during lockdown states as seen during the current pandemic. As the COVID-19 pandemic is evolving rapidly and the lockdown state is getting prolonged, understanding the changing pattern of sexual behavior may give some insight to the pathological behavior, so that possible remediation measures can be taken. Therefore, the current study was aimed to see how sexual behaviors have been changed among the married couples during the lockdown period of the COVID-19 pandemic.

This cross-sectional study was conducted among the individuals of three south-east Asian countries (Bangladesh, India & Nepal) from 3rd April 2020 to 15th April 2020. The research was carried out using an online survey, for which a questionnaire was created in English using the *Google form*. A convenient sampling technique was applied, and the individuals who understood English were approached. The questionnaire link was forwarded to all investigators' associates and the respondents were asked to forward or post the links among their contact groups. Clicking on the questionnaire link, circulated during the survey flashed a brief summary of the survey on the screen, followed by the consent form. Participants aged 18 years and above, married and living with their spouses during the lockdown, consenting to participate in the study and able to understand English were included in the study. The questionnaire became accessible after accepting the terms and conditions of the study. Data cleaning was done by one of the investigators and it was cross-checked by a second investigator. Data analysis was carried out using IBM SPSS version 26.

A total of 120 responses were analyzed from the respondents of the three South-East Asian countries (Bangladesh, India & Nepal). The background characteristics of the study population are shown in Table 1. The mean (\pm SD) age of the respondents was 35.42 (\pm 5.73) years, majority were male, under 40-years of age and completed post-graduate degree (Table 1).

Respondent's sexual activity-related statistics are presented in Table 2. Almost 76.7% of respondents shared that they had sexual intercourse with their spouse 1 to 5 times a week before the start of lockdown. 45% of the respondents reported that the lockdown had

some impact in their sexual life. After the start of lockdown 72.5% of the respondents reported of having sexual intercourse 1 to 5 times a week. 50% of respondents reported having positive changes in their emotional bonding due to the lockdown.

The current study was aimed to see the effects lockdown of COVID-19 on the sexual life of the individuals from three south-east Asian countries. The participants of this study have either graduate or post-graduate education and employed, which is expected as most of online or web survey respondents are younger with high education and most likely employed than those who refuse to participate in the survey (Cantuaria and Blanes-Vidal, 2019; Poli et al., 2019).

Among the sample, 45% of the participants reported that the lockdown affected their sexual life. However, the data collected in this research shows no substantial difference in sexual activity between before and during the lockdown; most of the participants engage in sexual activity with their partner once to five times a week before and during lockdown (76% and 72% respectively), while the data show that after the lockdown, more participants engaged in sexual activity with their partner more than 5 times a week, in comparison to before the lockdown (10% and 6.7% respectively), meaning that around 3.3% of the participants' sexual activity increased from 1 to 5 times a week to more than five times, the increase of sexual habits can be due to seeking intimacy and reassurance, or simply having more time to spend with their partner. This to say that more participants' sexual habits might have been affected by the lockdown but the effect is not major as their sexual habits still fall under 1 to 5 times a week. One study revealed that among couples in a relationship who have a sexual activity frequency of once a week and couples who have a higher frequency, there is no association between the frequency of sexual activity and well-being and satisfaction with life (Muise et al., 2016). This could explain the finding that 46.7% of the sample reported no change in their emotional bonding. On the other hand, 50% of the sample reported that their emotional bonding was affected positively by the lockdown, this can be due to spending more time with their family, or as Muise et al. (2016) argues that individuals tend to feel better if they believe that they are having more sexual activities above their perceived average sexual frequency.

During this COVID-19 lockdown state, there are various factors that are likely to influence the intimacy resulting in an alteration in sexual behaviours. The factors that may facilitate sexual intimacy are – increased time spent together, little opportunity for recreation, less work burden, less social or family obligations. Similarly, there are several factors that may adversely affect the sexual life are – more chance of interpersonal conflicts, stress, lack of privacy and medical issues. These net outcome in the sexual behaviours of an individual is the cumulative effect of facilitating and limiting factors.

The major strength of this study is the sample from three South Asian countries who have their own unique socio-cultural settings. For the future reference, this study can serve as a foundation of the research

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Table 1
Distribution of respondents by their background characteristics (n = 120)

Variables	Frequency	Percentage
Age categories		
20-29	6	5
30-39	91	75.8
40-49	21	17.5
50 years and above	2	1.7
Mean ± SD	35.42 ± 5.73	
Gender		
Male	93	77.5
Female	26	21.7
Prefer not to say	1	0.8
Educational Qualifications		
Graduate	27	22.5
Postgraduate	93	77.5
Country of origin		
Bangladesh	18	15
India	56	46.7
Nepal	46	38.3
Family type		
Nuclear	75	62.5
Joint	45	37.5
No of living children in the family		
0	32	26.7
1-2	76	63.3
3+	12	10
Currently working from home		
Yes	59	49.2
No	61	50.8
Suffering from any chronic health condition		
Yes	11	9.8
No	109	90.2
Suffering from any psychiatric disorder		
Yes	5	4.2
No	115	95.8
Taking any medications		
Yes	24	20
No	96	80
Any sexual dysfunction		
Yes	3	2.5
No	117	97.5
Addicted to any substance		
Tobacco	8	6.7
Alcohol	20	16.7
Cannabis	2	1.7
Opium	0	0
Sleeping pills	1	0.8
Any other	0	0
None	89	74.2
Total	120	100

base in this area of wellbeing.

This study has several limitations. The study applied a convenient sampling technique. The questionnaire was prepared in English and respondents with good internet literacy were only included. The small sample size from each country is not the representative and hence cannot be extrapolated at a larger level. Only married persons and living with spouses were assessed.

This is the first study to assess the effect of lockdown of COVID-19 on sexual behaviour involving the respondents of three countries of South-East Asia that revealed lockdown substantially influenced the sexual behaviour.

Declaration of Competing Interest

None

Table 2
Distribution of respondents by their sexual habits (n = 120)

Variables	Frequency	Percentage
Duration of marriage		
Less than a year	15	12.5
1-5 years	53	44.2
6-10 years	30	25
11+ years	22	18.3
Mode of marriage		
Choice	34	28.3
Arranged	50	41.7
Both	36	30
Sexual intercourse per week in usual time (i.e. before lockdown)		
1 to 5 times	92	76.7
More than 5 times	8	6.7
No sexual intercourse	20	16.7
Lockdown affected sexual life		
Yes	54	45
No	66	55
Frequency of sexual intercourse during lockdown (weekly)		
1 to 5 times	87	72.5
More than 5 times	10	10
No sexual intercourse	21	17.5
Affected emotional bonding		
Positively	60	50
Negatively	4	3.3
No change	56	46.7

Supplementary materials

Supplementary material associated with this article can be found, in the online version, at [doi:10.1016/j.psychres.2020.113050](https://doi.org/10.1016/j.psychres.2020.113050).

References

- Buchholz, K., 2020. What Share of the World Population Is Already on COVID-19 Lockdown? Statista Available at: <https://www.statista.com/chart/21240/enforced-covid-19-lockdowns-by-people-affected-per-country/> Accessed on 11 April 2020.
- Cantuaria, M.L., Blanes-Vidal, V., 2019. Self-reported data in environmental health studies: mail vs. web-based surveys. BMC Med. Res. Methodol. 19, 238. <https://doi.org/10.1186/s12874-019-0882-x>.
- Muise, A., Schimmack, U., Impett, E.A., 2016. Sexual frequency predicts greater well-being, but more is not always better. Soc. Psychol. Person. Sci. 7, 295–302. <https://doi.org/10.1177/1948550615616462>.
- Poli, A., Kelfve, S., Motel-Klingebiel, A., 2019. A research tool for measuring non-participation of older people in research on digital health. BMC Public Health 19, 1487. <https://doi.org/10.1186/s12889-019-7830-x>.
- World Health Organization WHO, 2020. Report of the WHO-China Joint Mission on Coronavirus Disease 2019 (COVID-19). [PDF] Available at: [https://www.who.int/publications-detail/report-of-the-who-china-joint-mission-on-coronavirus-disease-2019-\(covid-19\)](https://www.who.int/publications-detail/report-of-the-who-china-joint-mission-on-coronavirus-disease-2019-(covid-19)) [Accessed on 15 April 2020].

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