Letter to the Editor

Binge watching behavior during COVID 19 pandemic: A cross-sectional, cross-national online survey

To the Editor,

During the COVID-19 lockdown phase, people experience anxiety and emotional break down (Lima et al., 2020 May 1). As people face days of isolation at home, this creates an ideal condition to engage in online activities and watching television. As recreation sources are limited at home settings and internet/television are easily accessible, readily available and of course affordable; it may result in binge-watching. People with binge-watching behavior often watch multiple episodes in a single go (Umesh and Bose, 2019). Considering this fact, the tele-industry is spending on making web-series that compel people for binge-watching and to promote this behavior often all the episodes of a particular season of web-series are released simultaneously (Umesh and Bose, 2019). In the current situation of COVID-19 pandemic with a global lockdown state, as people have little to do, there seems to be an increase in binge-watching. To the best of our knowledge, no study studied binge-watching behavior during pandemics and their short-term as well as long-term effects. This study aimed to determine the binge-watching pattern of television, internet resources during this COVID-19 lockdown in South East Asian countries.

This is a descriptive study with a cross-sectional design. It was conducted in the general population of four Southeast Asian countries (Bangladesh, India, Indonesia & Nepal). An online survey was conducted on the general population using the *Google form*, who understand English. The study questionnaire contained 26 items. Participants age 18 years and more, consenting to participate in the study and able to understand English were included in the study. The data were analyzed in terms of percentages, mean, standard deviation and proportions. Also, country-wise comparison done.

A total of 551 individuals who participated in the survey, of two, were excluded because of not meeting the age criteria and one excluded due to incomplete data. The final analysis was done in a sample of 548 participants. A total of 548 adults (age ≥18years) sample was analyzed, out of which 61.3 % of participants were from India, 22.3 % from Nepal, 10.2 % from Bangladesh and 6.2 % from Indonesia. The mean age of the sample was 32.62 (± 10.29), 60% were males, 44% were graduates (44.3 %), 40.5% postgraduates, most of them belonged to the nuclear family (74.6 %) and are presently living with family (81.2%), and 53.3% had been working from home (Table 1).The previous history and pattern of viewing TV/ online videos indicate that most of the population watched frequently but for a shorterduration (38.7%) and the average time for binge-watching was 1-3 hours (68.8 %). During the lockdown period, 73.7 % agreed to a considerableincrease in binge-watching with an increasein an average time of 3-5 hours (17.3 %) and 5+ hours (11.5 %) of binge-watching. The major platform used for viewing has been you-tube (52.7 %) and the major content watched has been news (69.2 %). The frequency of binge-watching has been daily for 27.6% of participants.

Interference caused due to binge-watching indicates that sometimes 39.1 % of participants experienced sleep disturbance, 32.3 % of participants sometimes missed work and 28.1% of participants reported sometimes having a conflict with others due to binge-watching. A total of 27.6 % reported that they have tried controlling their binge-watching but have failed to do so. The assessment of insight about binge-watching indicates that 30.3% of participants sometimes feel that they are getting addicted as well as 43.2% of the participants report that they try controlling their binge-watching behavior and 29% fear that binge-watching will interfere in their future work. Regarding the consequence of binge-watching, 69.5 % of participants report that binge-watching is bad for them although 46.7% of the participants were unaware of the concept of binge-watching. Most of the participants (52.6 %) report the major psychological motivation for binge-watching as to pass time and escape boredom, 25% use it for relieving stress as well as 15.7 % use it for overcoming loneliness. On the other hand, 30.8 % of the population report that they watch TV/ online videos to keep themselves updated.

As the sources of entertainment and social interaction got limited during this pandemic, globally, people directed themselves to the readily available modes of entertainment in their home settings. It has been reported in recent day electronic and printed media thatthere is an increasein viewership of television and internet over the pastfew months, globally. During the lockdown period although more than half the participants (53.3 %) were found to be working from home yet most of them agreed that their TV/ internet usage has increased (73.7 %) considerably daily (27.6 %). This might indicate the useof binge-watching as a coping mechanism. It is considered an unhealthy coping mechanism as people tend to substitute the live unacceptable experiences with fantasy and imagination generating web-series and television shows (Lazarus and Folkman, 1984). The psychological motivation found for binge-watching has been to pass time and escape boredom (52.6 %), relieve stress (25 %), overcome loneliness (15.7%). It leads to the immediate gratification of needs. The constant availability of content for binge-watching helps in the gratification of needs whenever and wherever one wants, resulting in an imbalance between the short-term pleasures and the potential costs of media exposure (Hofmann et al., 2016). It is too early to say whether binge-watching will result in behavioral addiction or not. However, existing evidence supports the association of binge-watching with mood disturbances, sleep disturbances, fatiguability and impairment in self-regulation (Zhang et al., 2017). This study revealed that binge-watching sometimes causes significant interference in sleep (39.1 %), disturbs in completion of work (32.3 %) as well as causes conflict with others (28.1 %) (Table 1).

Further, research is required to establish a cause-effect relationship. But, as per the existing evidence, limiting the binging behavior may be beneficial for people and may prevent the development of lifestyle-related disorders too. This study is an attempt to understand the possible

Table 1

The socio-demographic profile and binge-watching behaviour of participants.

Variables	Total Number	% or SD	Bangladesh, n (% or SD)	India, n (% or SD)	Indonesia, n (% or SD)	Nepal, n (% or SD)	p-value
Mean of Age	32.6	10.3	28.3 (7.2)	34 (11.7)	30 (7.7)	31.4 (6.3)	0.0001
Male Gender	333	60.7	40 (71.4)	207 (61.6)	11 (32.3)	75 (61.5)	0.011
Currently work from home	292	53.3	36 (64.3)	171 (50.9)	24 (70.6)	61 (50)	0.044
Type of Family							0.0001
Nuclear	409	74.6	38 (67.8)	267 (79.5)	16 (47)	88 (72.1)	
Joint	139	25.4	18 (32.1)	69 (20.5)	18 (52.9)	34 (27.8)	
Currently live with							0.02
Family	447	81.6	53 (94.6)	264 (78.6)	27 (79.4)	103 (84.6)	
Alone	86	15.7	1 (1.8)	61 (18.2)	5 (14.7)	19 (15.6)	
Hostel or dormitory	15	2.7	2 (3.6)	11 (3.3)	2 (5.9)	0 (0.)	
Daily pattern of watching before lockdown							0.227
Infrequent and for shorter duration	211	38.5	21 (37.5)	134 (39.9(	16 (47)	40 (32.8)	
Infrequent but longer duration	63	11.5	9 (16)	37 (11)	5 (14.7)	12 (9.8)	
Frequent but for shorter duration	212	38.7	19 (33.9)	123 (36.5)	9 (26.5)	61 (50)	
Frequent & for longer duration	62	11.3	7 (12.5)	42 (12.5)	4 (11.8)	9 (7.4)	
During lockdown prefer to watch with							0.368
Alone	310	56.6	32 (57.1)	182 (54.2)	24 (70.6)	72 (59)	
With family	218	39.8	21 (37.5)	139 (41.4)	10 (29.4)	48 (39.3)	
With friends	20	3.6	3 (5.4)	15 (4.5)	0 (0.0)	2 (1.6)	
Duration of watching during lockdown							0.278
Less than 1 hr	121	22.1	15 (26.8)	66 (19.6)	7 (20.6)	33 (27)	
1 - 3 hrs	259	49.1	29 (51.8)	164 (48.8)	15 (44.1)	61 (50)	
3 - 5 hrs	95	17.3	6 (10.7)	67 (19.9)	9 (26.5)	13 (10.6)	
More than 5 hrs	63	11.5	6 (10.7)	39 (11.6)	3 (8.8)	15 (12.3)	
Frequency of watching movie in a week							0.002
Never	100	18.3	18 (32.1)	61 (18.1)	3 (8.8)	18 (14.7)	
once a week	21	3.8	1 (1.8)	16 (4.8)	1 (2.9)	3 (2.5)	
twice a week	144	26.3	8 (14.3)	95 (28.3)	2 (5.9)	39 (31.9)	
three times a week	89	16.2	5 (8.9)	56 (16.7)	7 (20.6)	21 (17.21)	
Daily	152	27.7	21 (37.5)	87 (25.9)	16 (47)	28 (22.9)	
Many times in a day	42	7.6	3 (5.4)	21 (6.3)	5 (14.7)	13 (10.6)	
Number of episodes of web series watched in one go							0.088
Less than 3 episodes	175	31.9	9 (16)	108 (32.1)	9 (26.5)	49 (40.2)	
3-5 episodes	95	17.3	11 (19.6)	64 (19.1)	7 (20.6)	13 (10.6)	
More than 5 episodes	47	8.6	5 (8.9)	31 (9.2)	2 (5.9)	9 (7.4)	
Not applicable	231	42.2	31 (55.3)	133 (39.6)	16 (47)	51 (41.8)	
Data usage during lockdown							0.0001
Less than 2 GB	166	30.3	20 (35.7)	122 (36.3)	5 (14.7)	19 (15.6)	
2 GB	112	20.4	10 (17.9)	83 (24.7)	4 (11.8)	15 (12.3)	
4 GB	39	7.12	2 (3.6)	28 (8.3)	3 (8.8)	6 (4.9)	
More than 5 GB	55	10	3 (5.4)	35 (10.4)	8 (23.5)	9 (7.4)	
Don't know	176	32.1	21 (37.5)	68 (20.24)	14 (41.2)	73 (59.8)	
During lockdown, ever try not to watch but fail to control yourself							0.77
No	305	55.7	31 (55.3)	184 (54.8)	20 (58.8)	70 (57.4)	
Yes	151	27.5	12 (21.4)	96 (28.6)	8 (23.5)	35 (28.7)	
Not sure	92	16.8	13 (23.2)	56 (16.7)	6 (17.7)	17 (13.9)	
Missing daily activities like before lockdown							0.446
No	261	47.6	30 (53.6)	157 (46.7)	12 (35.3)	62 (50.8)	
Sometimes	177	32.3	16 (28.6)	115 (34.2)	14 (41.2)	32 (26.2)	
Often	83	15.2	8 (14.3)	50 (14.9)	7 (20.6)	18 (14.7)	
Always	27	4.9	2 (3.6)	14 (4.2)	1 (2.9)	10 (8.2)	
Outcome of any series affect you							0.003
No	334	60.9	33 (58.9)	204 (60.7)	17 (50)	80 (65.6)	
Yes	93	17	5 (8.9)	71 (21.1)	3 (8.8)	14 (11.5)	
Not Sure	121	22.1	18 (32.1)	61 (18.2)	14 (41.2)	28 (22.9)	
Continuous watching affect sleep during lockdown							0.161
Never	213	38.9	20 (35.7)	117 (34.8)	19 (55.9)	57 (46.7)	
Sometimes	214	39.1	26 (46.4)	140 (41.7)	11 (32.3)	37 (30.3)	
Often	93	17	7 (12.5)	62 (18.4)	3 (8.8)	21 (17.21)	
Always	28	5	3 (5.4)	17 (5.1)	1 (2.9)	7 (5.7)	
Knowledge about Binge watching							0.0001
No	261	47.6	34 (60.7)	160 (47.6)	24 (70.6)	43 (35.6)	
Yes	238	43.4	15 (26.8)	156 (46.4)	4 (11.8)	63 (51.6)	
Maybe	49	8.9	7 (12.5)	20 (5.9)	6 (17.7)	16 (13.1)	
Perception about Binge watching							0.065
Anything other (Specify)	46	8.4	9 (16)	21 (6.3)	5 (14.7)	11 (9)	
Bad	381	69.5	34 (60.7)	236 (70.2)	19 (55.9)	92 (75.4)	
Don't know	95	17.3	10 (17.9)	64 (19.1)	6 (17.7)	15 (12.3)	
Good	26	4.7	3 (5.4)	15 (4.5)	4 (11.8)	4 (3.3)	
Have ever tried to limit watching videos during lockdown							0.564
Never	138	25.2	18 (32.1)	77 (22.9)	6 (17.7)	37 (30.3)	
Sometimes	237	43.2	20 (35.7)	151 (44.9)	16 (47)	50 (41)	
Often	101	18.4	8 (14.3)	63 (18.7)	7 (20.6)	23 (18.8)	
Always	72	13.1					

Table 1 (*continued*)

Variables	Total Number	% or SD	Bangladesh, n (% or SD)	India, n (% or SD)	Indonesia, n (% or SD)	Nepal, n (% or SD)	p-value
Having conflict with others because excessive watching							0.099
Never	338	61.7	30 (53.6)	197 (58.6)	27 (79.4)	84 (68.8)	
Sometimes	154	28.1	17 (30.4)	99 (29.5)	6 (17.7)	32 (26.2)	
Often	42	7.7	8 (14.3)	28 (8.3)	1 (2.9)	5 (4.1)	
Always	14	2.5	1 (1.8)	12 (3.6)	0 (0.0)	1 (0.8)	
Perceived that you are addicted to watching during lockdown							0.27
Never	290	52.9	31 (55.3)	175 (52.1)	15 (44.1)	69 (56.6)	
Sometimes	166	30.3	16 (28.6)	104 (30.9)	8 (23.5)	38 (31.2)	
Often	64	11.7	7 (12.5)	39 (11.6)	6 (17.7)	12 (9.8)	
Always	28	5.1	2 (3.6)	18 (5.4)	5 (14.7)	3 (2.5)	
Fear that excessive watching during lockdown interfere your study or work in the future							0.912
Never	270	49.3	30 (53.6)	159 (47.3)	17 (50)	64 (52.5)	
Sometimes	159	29	15 (26.8)	103 (30.7)	9 (26.5)	32 (26.2)	
Often	67	12.2	8 (14.3)	38 (11.3)	5 (14.7)	16 (13.1)	
Always	52	9.5	3 (5.4)	36 (10.7)	3 (8.8)	10 (8.2)	
Perceived current quality of life	6.4	2.2	5.3 (2.2)	6.7 (2.1)	6.4 (2.2)	5.9 (2.3)	0.0001

cyber-psychopathologies during COVID 19 pandemic. There is a need to look for the long-term effect of binge-watching in the general-population, which will give a better insight into understanding the pathological aspects of binge-watching behavior.

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