COVID-19 Health Warningsamong Low Socio-Economic People: A Cross-sectional Study in Bangladesh

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Abstract

The present world is passing a great pandemic where Bangladesh facing an unavoidable challenge to cope up with COVID-19. The government and other health organizations haveannounced somehealth warnings to prevent COVID-19 and make people aware. The study aims to explore the health warnings status (knowledge and practicesof health warnings) among low socio-economic people in Bangladesh. This cross-sectional study was conducted with 400 participants (low socio-economic people) by using the purposive sampling and semi-structured questionnaire survey over six months. This study illustrates that 60% of respondents noticed they and their family members are very aware and knowledgeable about COVID-19where 36.5% are conscious to make their family aware about corona virus. About 32% of respondents use mask when they go to outside during corona period where 25% use hand sanitizer. It is found that there is a significant association between occupation, age and perception on people's awareness about COVID-19 at 1% level of significance where ($p<0.002$), ($p<0.001$) respectively. Along with, educational qualification is also significantly associated at 10% level of significance where ($p<0.08$).Most of the respondents have moderate level of knowledge and awareness about COVID-19 health warnings.

Keywords: *Knowledge, Awareness, Practice, COVID-19, Health Warnings, Bangladesh.*

Introduction

The World Health Organization declared COVID-19 as a pandemic on March 11, 2020, owing to its fast spread across the world. It began in Wuhan, Hubei province, in December 2019 and following that, on 8 March 2020, the first corona-infected patient was discovered in Bangladesh. In comparison to other countries, Bangladesh's infection rate has been relatively constant, but has already exceeded the control threshold[1]. As of 1 June 2021, Bangladesh has recorded 800,540 corona virus infections, including 12,619 fatalities, and recovered 740,372-corona virus-affected patients[2]. Since then, Bangladesh has adopted a number of measures to combat COVID-19[3].

Concerning COVID-19 prevalence, the government has taken more measures to prevent COVID-19 transmission among the Bangladeshi population, including evacuation, travel and entry restrictions, social isolation, and ultimately a lockdown on Dhaka[4, 5]. However, effective treatments need public acceptability, which is affected by people's knowledge, attitudes, and practices (KAP) about COVID-19[6,7].Only a few studies on awareness and behavior during epidemics have been conducted in

Bangladesh, but findings indicate that awareness and behavior toward contagious diseases are associated with severe fear and other emotional responses within the society, which may obstruct efforts to prevent disease transmission[8,9]. KAP protection against COVID-19 and government regulations governing public transportation is a critical cognitive cornerstone of public health in terms of health protection and promotion[10]. In Hubei, China, one of the first studies of COVID-19 attitudes and knowledge revealed a significant correlation between sentiments opposing government attempts to fight the epidemic and COVID-19 knowledge[11].

According to several investigations, the researcher encountered a lack of KAP and compliance with health warnings to COVID-19. The purpose of this study is to explore the health warnings status (knowledge and practices of health warnings) among low socio-economic people in Bangladesh. The study's results will be a roadway for policymakers on public awareness, attitudes, practices, shortfalls, and the authority's sincerity about the successful implementation of initiatives related to health warnings about COVID-19 by the government of Bangladesh.

Methods

Study Design, Area and Period

This cross-sectional survey was conductedamong low socio-economic people who living in Demra and Tongi industrial areas in Bangladesh over six months from July to December 2020 after widely spreading COVID-19 throughout the county.

Study Population

This purposive sampling study targeted all the low socio-economic people who living in Demra and Tongi industrial areas in Bangladesh during the COVID-19 Pandemicto understand the awareness warning of COVID-19 attitudes and health risk factors associated with it.

Sample Size and Sampling Technique

Using purposive sampling, the total of 400respondents were selected by taking 50% prevalence and by adding 5% non-respondent error.

DataCollection

Purposive sampling was used to collect data, which were gathered through a semi-structured questionnaire. The research gathered only quantitative data through face-to-face interviews. Theprinted protocol was incorporated with different predetermined statements to get a comprehensive picture of awareness warning of COVID-19 among low socio-economic populations with yes, no, and remark options that must observe.

Statistical Analysis

The study data were collected via face-to-face interview using semi-structured questionnaire and then raw data from interviews were checked, cleaned, processed, and codified for reliability and validity. The available latest version of Statistical Package for Social Sciences (SPSS version 25.0) and MS Excel was usedto describe the basic features of the data in the study through frequencies and percentage.

Results

Knowledge and Awareness Status about COVID-19

Figure 1 reveals that three-fifth (60%) of the respondents noticed they and their family members are very aware and knowledgeable about COVID-19 where two-fifth (40%) of the respondents and their family members are not aware about COVID-19.

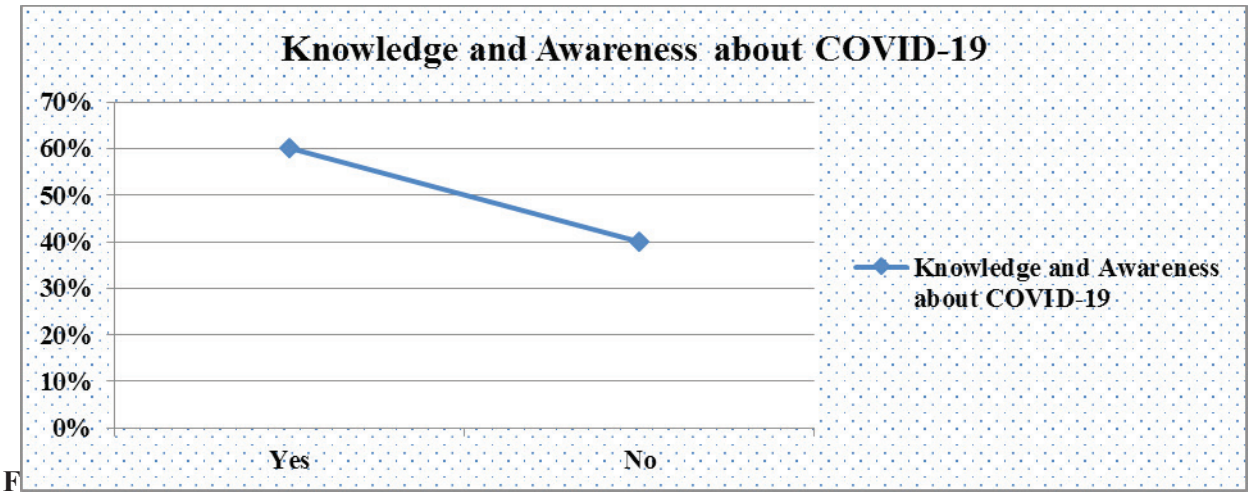

Figure 1: Knowledge and Awareness Status of the respondents about COVID-19

Knowledge, Attitude and Practice (KAP) of Health Warnings

Table 1describes that more than half (58.2%) of the respondents did not opine anything about making aware their family members about corona virus where more than one-third (36.5%) of the respondents opined that they are conscious to make their family aware about corona virus. More three-fifth (66%) of the respondents did not opine anything about having nutritious food during corona period. More than one-fourth (27%) of the respondents opined that they try to drink lemon water & tea during corona period. Along with that, more than one-fourth (27%) of the respondents opined that they try to wash hand and face by soap/hand wash during corona period. On the other hand, more three-fifth (70%) of the respondents opined that they take bath by soap after coming home from outside during corona period.

Table 1: Respondent's Knowledge, Attitude and Practice (KAP) of Health Warnings

Variables	Strongly Disagree		Disagree		Neither		Agree		Strongly Agree	
	Number	%	Number	%	Number	%	Number	%	Number	%
Making Awareabout COVID-19	4	1.0	17	4.3	233	58.2	146	36.5	00	0.0
Travelling During Corona Period	20	5.0	20	5.0	256	64.0	104	26.0	00	0.0
Usage of Mask	4	1.0	12	3.0	256	64.0	128	32.0	00	0.0
Use of Hand Sanitizer	16	4.0	20	5.0	264	66.0	100	25.0	00	0.0
Maintaining Safe Distance	36	9.0	20	5.0	248	62.0	96	24.0	00	0.0

Cont... **Table 1: Respondent's Knowledge, Attitude and Practice (KAP) of Health Warnings**

Usage of Hand Sanitizer	4	1.0	4	1.0	16	4.0	260	65.0	116	29.0
Having Nutritious Food	4	1.0	4	1.0	264	66.0	128	32.0	00	0.0
Drinking Lemon Water& Tea	4	1.0	4	1.0	8	2.0	276	69.0	108	27.0
Washing Hand And Face	12	3.0	12	3.0	268	67.0	108	27.0	00	0.0
Taking Bath By Soap	8	2.0	8	2.0	12	3.0	280	70.0	92	23.0

Reasons of Indifference Regarding Health Warnings

The Table 2 reveals that three-fifth (91%) of the respondents noticed that for financial crisis of people they don't stay at their home during corona period where almost a cent percent (98%) of the respondents noticed that for less implementation of laws they go to outside for their task during corona period. More than half (150%) of the respondents noticed that for their incognizance they do not use mask when they go to outside for their task during corona period. More than one-third (120%) of the respondents noticed that for bigotry they do not avoid handshake when they go to outside for their task during corona period.

Table 2: Reasons of Respondent's Indifference Regarding Health Warnings

Variables	Ignorance		Incognizance		Bigotry		Don't Adjust With New Hygiene System		Less Implementation of Laws		Financial Crisis	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Reasons for absence in home	16	4.0	152	38.0	16	4.0	136	34.0	152	38.0	364	91.0
Reasons of going outside	152	38.0	4	1.0	60	15.0	80	20.0	392	98.0	00	0.0
Reasons of not using mask	8	2.0	600	150.0	136	34.0	312	78.0	128	32.0	00	0.0
Reasons of not using hand sanitizer	16	4.0	632	158.0	152	38.0	440	110.0	48	12.0	16	4.0
Reasons of not maintaining social distance	16	4.0	632	158.0	24	6.0	296	74.0	4	1.0	4	1.0
Reasons of not covering face during coughing	8	2.0	608	152.0	104	26.0	456	114.0	16	4.0	16	4.0
Reasons of not avoiding handshake	584	146.0	160	40.0	480	120.0	8	2.0	00	0.0	00	0.0
Reasons of not avoiding seating closely	248	62.0	124	32.0	232	58.0	148	37.0	72	18.0	48	12.0

Relationship between Perception on Aware About COVID-19 and Background Characteristics

Table 3 depicts there is association between perceptions on aware about COVID-19 and religion at 5% level of significance. Among the Muslim, 79.8% Muslim have perception that people are not aware about COVID-19 whereas among the Hindus, all of them have perception that people are not aware about COVID-19. It is found that there is a significant association between occupation and perception on people's awareness about COVID-19 at 1% level of significance where ($p<0.002$). Educational qualification is significantly associated with perception on people's awareness about COVID-19 at 10% level of significance ($p<0.08$). There is significant relation between age and perception on people's awareness about COVID-19 at 1% level of significance ($p<0.001$).

Table 3: Association between Perception on Aware About COVID-19 and Background Characteristics

Variable	Categories	Perception on Aware About COVID-19		Chi Square	P Value
		Yes	No		
Religion	Muslims	76 (20.2)	300 (79.8)	5.989	0.014
	Hindus	0 (0.0)	24 (100)		
Get Infected With COVID-19	Yes	4 (36.4)	7 (63.6)	2.216	0.137
	No	72 (18.5)	317 (81.5)		
Marital Status	Married	64 (19.8)	260 (80.2)	2.077	0.354
	Unmarried	12 (17.6)	56 (82.4)		
	Divorced	0 (0.0)	8 (100)		
Occupation	Government Jobs	0(0)	8(100)	22.93	0.002
	Private Jobs	4(6.3)	60(93.8)		
	Business	4(25)	12(75)		
	Shopkeeper	8(40)	12(60)		
	Housewife	36(18.2)	172(81.8)		
	Day Work	16(25)	48(75)		
	Rickshaw / Van Driver	8(40)	12(60)		
Educational Qualifications	Illiterate	36(22)	128(78)	6.756	0.08
	Primary	32(19.5)	132(80.5)		
	Secondary	8(16.7)	40(83.3)		
	Higher Secondary Or More	0(0)	24(100)		
Age	20-29 Year	24(12.8)	164(87.2)	15.97	0.001
	30-39 Year	24(18.8)	104(81.3)		
	40-49 Year	24(33.3)	48(66.7)		
	50 Year Or Above	4(33.3)	8(66.7)		
Number of Family Member	1 Member	0(0)	4(100)	4.712	0.194
	2-3 Member	12(13)	80(87)		
	4-5 Member	48(20)	192(80)		
	Above 5 Members	16(25)	48(75)		
Monthly Income	=< 10000 Taka	28(17.9)	128(82.1)	3.5	0.174
	11000-15000 Taka	36(17.6)	168(82.4)		
	Above 15000 Taka	12(30)	28(70)		

Discussion

This research examined the public's knowledge and the public can implement awareness of COVID-19-related health warnings, as well as the precautionary measures. Three-fifths (60%) of respondents and their family members are very aware and informed about COVID-19, whereas two-fifths (40%) are unaware. The finding is slightly inconsistent with another study, which showed that the majority of participants (89.6 %, 87.2 %, and 87.2 % respectively) had positive understanding, attitudes, and behaviors about the COVID-19 pandemic[12]. Around 32% of responders wear a mask while going outdoors during the corona period, while 25% use hand sanitizer. When existing research indicates that 93.8% of participants continue to use face masks while outside, other studies reflect a far lower figure of 27.7%[13,14,15,16]. This finding contrasts with previous studies indicating that fewer than 60% of individuals use a facemask when out in public[17-24]. Only 28% of study respondents reported sanitizing their hands, compared to previous studies showing that (92–96.6%) of individuals practiced hand hygiene on a daily basis [13,16,18, 25].

The study's findings indicate that more than a quarter (26%) of respondents travel less and 24% keep a safe distance while venturing outdoors during the corona period. Additionally, more than a quarter (27%) of respondent's attempts to wash their hands and faces with soap/hand wash during the corona time. The current findings are generally inconsistent with previous study that showed close contact avoidance (90.6%), hand washing (76.6%), face masking (66.6%), gloves (64.2%), and area disinfection (61.7%) as critical barriers to COVID-19 transmission[26]. In contrast to 97% of respondents in another study, they avoided touching their noses, 92.38% predicted covering their faces when sneezing, and 68 % chose to clean their hands if the soap was no longer useable. Additionally, 84% observed on-board social distance and 77.3% wore masks[27].This study's findings indicate that three-fifths (91 percent) of respondents observed that people do not stay at their homes throughout the corona period due to financial problems. According to World Bank statistics, nearly 55% of urban residents live in slums[28]. In addition, the lowest segments of society, such as day workers, vendors, and rickshaw pullers, are forced to abandon social distance in order to survive[29].

Conclusions

Bangladesh is facing unavoidable difficulties during this pandemic era, with health safety and security being the primary concerns. The purpose of this study was to assess people's knowledge and awareness of health warnings related to COVID-19, as well as participant's Knowledge, Awareness, and Practice (KAP) of health warnings, the reasons for respondent's indifference to health warnings, and the association between perceptions of being aware of COVID-19 and background characteristics. As a result, it was determined that the usage of masks, hand sanitization, keeping social distance, and covering the face when coughing are critical health warnings and precautions for the public. However, the majority of individuals adheres to and retains these health warnings in their current lives throughout COVID-19. As a result, the research suggested that the responsible authority take more thorough and genuine measures by taking required steps and increasing awareness via seminars and campaigns. Without a doubt, the research results will serve as a guide for government officials and other organizations as they develop their policies and other preventative measures.

Ethical Approval

The BMRC's Dhaka Ethical Review Committee accepted the research protocol prior to the start of the project. [Approval Number: BMRC/RP/Revenue/2019-20/607(6-98)] [Date: 29/06/2020].

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Conflict of Interest: There is no conflict of interest.

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