DOI: https://doi.org/10.53350/pjmhs221621107

ORIGINAL ARTICLE

Level of Awareness Regarding COVID-19 Among Laborers, Maintenance and Sanitary workers

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ABSTRACT

Background: COVID-19 is a global pandemic and the most serious health issue worldwide now a day. There is a lot of research going on regarding this issue. Many sectors of the community are focussed but some are still not properly approached like those with poor socioeconomic status, with high exposure to the community. This study was aimed at one of such group i.e., labourers, maintenance and sanitary workers.

Methodology: It was a questionnaire-based cross-sectional study. The questionnaire contained multiple choice questions based on simple laymen knowledge regarding covid-19.

The sampling technique was non-probability consecutive sampling. The sample size (169) and the questionnaire were filled in by the one health professional in face-to-face interview.

Results: Total 169 participants, all males, were included in this study. The age range was 18-60 years (median 36 years). Most of the participants were sanitary workers (89.9%) with a major chunk from Bangladesh (82.8%) followed by India (15.4%). The level of awareness was considered good, average and poor with more than 20 (80%), 15 to 20 (58- 79%), and less than 15 (54%) correct replies, respectively.

Only 35 participants (20.7%) ranked as good while 110(65.1%) had average and 24(14.2%) had poor knowledge.

Conclusion: The level of awareness among labour class of the society is quite low. Educating them regarding COVID-19 is very important in order to control this pandemic.

Keywords: SARS-CoV-2, COVID-19, Awareness, Prevention

INTRODUCTION

World got its first novel corona virus case on Dec 30, 2019, the disease now known as covid-19[1]. Since then, a lot has been known regarding different aspects of the disease and still a lot is yet to be discovered. In February 2020 WHO declared Covid-19 as a global pandemic [2] and asked the world and governments to take emergency measures to control the spread of the disease. To tackle this situation countries around the globe started acting meticulously. World Health Organisation (WHO) with the collaboration of health authorities in different countries have made standard operating procedures (SOPs) to control the spread of the disease and break the chain of transmission[3]. Social and physical distancing[4], wearing face masks[5], hand hygiene[6] and use of hand sanitizers are some of these SOPs. Though these procedures are specified clearly by WHO and government authorities, yet it is an uphill task to follow and implement these SOPs especially in certain strata of population like those under this study like with low level of education, poor socioeconomic status and occupational situations. Up till now different variants of SARS-CoV-2 have emerged with the recent one called delta variant has very fast transmission rate. So, health education and spreading awareness in people regarding COVID-19, the nature of the disease and most importantly, the measures to control its spread is a real challenge. Health authorities Saudi Arabia have done marvellous job in this regard. Efforts regarding COVID-19 control started even before the kingdom received its first COVID-19 case[7]. At the very beginning of the pandemic, a committee consisting multiple government departments was constituted under the leadership of ministry of health for COVID-19 follow up[8]. It suspended all sorts of gatherings and applied strict social distancing in order to avoid the spread of the disease. It also suspended the international travels, and restricted the local travels. Moreover, it introduced smart phone applications to spread awareness, to monitor the cases and to diagnose, isolate and treat the cases promptly and efficiently[9].

Since the beginning up till now a lot of population groups have been studied regarding awareness of COVID-19 like general population, teachers, college and university students etc, yet there are some population groups that are not studied much. Among these neglected groups, laborers, maintenance workers and sanitary workers are very important as they are an easy prey to an epidemic or pandemic due to their lower standards of living, lower literacy rate and poor access to medical facilities.

The primary purpose of this study was to know about, the level of awareness of lower socioeconomic sector regarding COVID-19, the practices they adopt to prevent the spread of COVID-19 as we are of the opinion that this sector of the community will be lacking in awareness regarding this global problem. The secondary aim of this study was to highlight this issue and then educate them regarding COVID-19 and the preventive measures to protect themselves as well as the community from COVID-19.

MATERIALS AND METHODS

This was a questionnaire-based cross-sectional study done from 1st April to 30th April, 2021, in which the target population was asked different questions regarding the basic awareness related to covid-19. The questions on the survey were developed on the basis of authentic literature and the international guidelines[10]. The sample size was calculated by universally accepted sample size calculator[11] with 95% confidence interval and margin of error as 5%, which came out to be 169. Non probability consecutive sampling technique was used for sampling.

The questionnaire was a Standardized Questionnaire Form based on previously conducted studies and published data[12,13], and modified according to the local circumstances. The sampling technique was non-probability consecutive sampling. The questionnaire contained multiple choice questions based on simple laymen knowledge regarding covid-19. After approval from the ethical committee, the participants were subjected to the questionnaire. The participants were contacted and questionnaires were filled in priorly set one-to-one meeting. Any language barrier was dealt with accordingly and the questions were clearly explained in their mother tongue or in the language which they

could easily understand and answer. Any concerns about the confidentiality of the questionnaire were addressed according to the participants wishes.

The questionnaire consisted of 3 different parts. First one biodata containing age, marital status, education, occupation, nationality, residence and hygiene of the residence. 2nd part contained basic knowledge regarding COVID-19, like its cause, features, high risk group, transmission, mortality etc, and its prevention like masks, social distancing and hand hygiene. 3rd part contained the practices they perform to prevent the disease occurrence and spread. The reliability of internal consistency of the questionnaire was checked by Tau-Equivalent Reliability (Cronbach's Alpha) which scored as 0.76. The level of awareness was assessed by correct answers, giving every correct answer one mark and then added. Those who scored above 20 out of 26 basic questions regarding COVID-19 were graded as good, those with 15 to 20 correct answers as average and those with less than 15 correct answers as poor.

The data was entered into SPSS-22, were analysed for different variables and presented as tables and graphs.

RESULTS

Total 169 participants were included in this study. All of them were males. These participants were between 15 to 60 years of age with median age of 36 years. Among these 117(69.2%) were married and 52(38.8%S) unmarried. Among these 57(33.7%) participants were having no education, 64(37.9%) had done just primary, 45(26.6%) secondary and only 3(1.8%) were having qualification as higher secondary. Among these 140(82.8%) were Bangladeshi, 36(15.4%) Indians and 3(1.8%) Pakistanis. Regarding occupation majority of them i.e.,152(89.9%) were sanitary workers. All of them were sharing the residence with other co-workers. Among these 169 participants, in 78(46.2%) source of information regarding COVID-19 were people, in 20(11.8%) it was media, and 71(42%) of them gathered information from social media like Facebook and WhatsApp. All these demographics are summarized in TABLE 1.

TABLE 2 show how the participants' responded to different questions regarding COVID-19 awareness. In open ended questions where response as "Don't know" was there, 536 out of 1014 responses were as "Don't Know", which 52.9%. while responding to questions regarding modes of transmission, 65 participants (38.5%) answered that air (droplet) is the only mode of transmission, 26(15.4%) answered both air and direct transmission from human to human, and 67(39.6%) answered as air, direct contact and through household items can be the mode of transmission. Only one participant answered that all of these including infected animal handling can be responsible for transmission of SARS-CoV-2.

Regarding main symptoms of COVID-19, 112 participants (66.3%) responded as cough, fever and shortness of breath are the main symptoms, 20(11.8%) said that cough and fever are the main symptoms and 18(10.7%) said that fever and shortness of breath are the main symptoms. Only 16(9.5%) responded that fever, cough, shortness of breath and loss of sense of smell/taste are the main symptoms.

While addressing the preventive measures for COVID-19, 163 participants (96.4%) replied that hand hygiene, social/physical distancing and use of face mask are the main preventive measures, 3(1.8%) responded that social/physical distancing and face mask are the main preventive measures while 3(1.8%) considered just face masks are sufficient for prevention of COVID-19 spread.

CHART 1 shows the number of correct answers by the participants, dividing them into 3 categories, those who gave less than 15 correct answers out of total 26, those who gave 15 to 20 correct answers and those who gave more than 20 correct answers.

TABLE 3 stratifies the correct answers by the participants on the basis of different demographic features like age, marital status level of education etc.

Table 1: Demographics:

S. No	Property	Frequency	Percentage
1	GENDER		
	1. Male	169	100
	2. Female	0	0
2	AGE (YEARS)		
	1. 15 - 30	57	33.7
	2. 31 - 45	90	53.2
	3. 46 - 60	22	13.1
3	MARITAL STATUS		
	1. Married	117	69.2
	2. Unmarried	52	30.8
4	EDUCATION		
	1. None	57	33.7
	2. Primary	64	37.9
	3. Secondary	45	26.6
	4. Higher Secondary	3	1.8
5	NATIONALITY		
	1. Bangladeshi	140	82.8
	2. Indian	26	15.4
	3. Pakistani	3	1.8
6	OCCUPATION		
	1. Sanitary Worker	152	89.9
	2. Plumber	7	4.1
	3. Carpenter	1	0.6
	4. AC Maintenance	6	3.6
	5. Electrician	1	0.6
	6. Labourer	2	1.2
7	RESIDENCE		
	1. Sharing	169	100
	2. self	0	0
8	HYGIENE OF RESIDENCE		
	1. Good	115	68.1
	2. Average	47	27.8
	3. Poor	7	4.1
9	SOURCE OF INFORMATION	78	46.2
	1. People	20	11.8
	2. Media	71	42
	3. Social Media		

Table 2: Responses Given by The Participants (N = 169)

S. No	Modality	Responces/169	% age
1	ORGANISM		
	1. Virus	65	38.5
	2. Germ	50	29.6
	3. Don't know	54	31.9
2	VECTOR		
	1. Bats	26	15.4
	2. Dogs	15	8.9
	3. Cats	6	3.5
	4. Don't know	122	72.2
3	TRANSMISSION		
	1. Droplet	167	98.8
	2. Direct Contact	97	57.4
	3. Through Household	77	45.6
	4. Animal Handling	2	1.2
	5. All the above	1	0.6
4	CLINICAL FEATURES		
	1. Cough	150	88.8
	2. Fever	166	98.2
	3. Shortness of breath	148	87.6
	4. Loss of sense of	16	9.5
	taste/smell	16	9.5
	5. All the above		
5	FATALITY		
	1. Up to 5%	33	19.5
	2. Up to 20%	31	18.3
	3. More than 80%	21	12.4
	4. Don't know	84	49.7
6	RISK FACTORS FOR SEVER		
	COVID-19	53	31.4
	1. Old age	16	9.5
	2. Co-morbidities	92	54.4
	3. Both	8	4.7
	4. Don't Know		
7	ANY CURE FOR COVID-19?		
	1. Yes	76	45
	2. No	47	27.8
	3. Don't know	46	27.2

S. No	MODALITY	RESPONCES/169	PERCENTAGE
8	CAN A HEALTHY-LOOKING PERSON BE INFECTED?		
	1. Yes	33	19.5
	2. No	25	14.8
	3. Don't Know	111	65.7
9	CAN A HEALTHY-LOOKING PERSON SPREAD INFECTION?		
	1. Yes	33	19.5
	2. No	25	14.8
	3. Don't know	111	65.7
19	PREVENTION		
	1. Hand hygiene	163	96.4
	2. Distancing	166	98.2
	3. Face Mask	169	100
11	HAND HYGEINE		
	1. Washing with water only	97	57.4
	2. Washing with soap and water	160	94.7
	3. Using hand sanitizer	167	98.8
12	MINIMUM DURATION OF HAND WASHING		
	1. 20 Seconds	58	34.3
	2. 30 Seconds	24	14.2
	3. 1 Minute	87	51.5
13	RECOMMENDED MINIMUM PHYSICAL DISTANCING		
	1. 1 meter	7	4.1
	2. 2 meters	120	71
	3. 3 meters	42	24.9
14	MEASURES FOLLOWED BY YOU		
	1. Hand hygiene	164	97
	2. Distancing	164	97
	3. Face masks	169	100
	4. All the above	163	96.4

Chart 1: Frequency of Participants According to Correct Answers

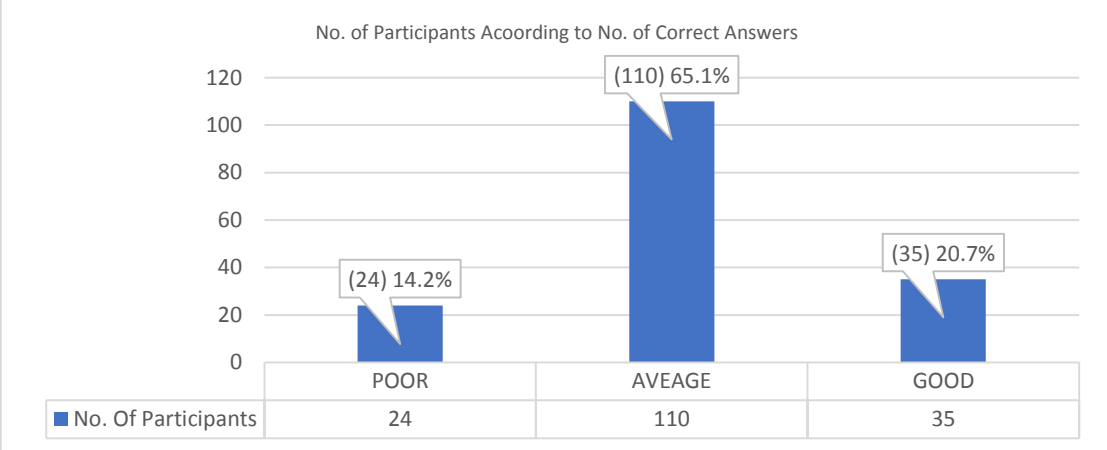

Table 3; Level of Awareness Based on Different Demographic Features Regarding Covid 19 Based on Correct Answers:

Feature	Frequency	Percentage	Mean correct answers	Minimum correct answers	Maximum correct answers	Standard deviation
No. of Correct Answer						
< 15	24	14.2	12.6	8.0	14.0	1.79
15 – 20	110	65.1	16.99	15.0	20.0	1.63
> 20	35	20.7	23.34	21.0	26.0	1.47
Total	169	100	17.69	8.0	26.0	3.64
Age (years)						
1. 15 - 30	57	33.7	19.12	8.0	26.0	4.30
2. 31 - 45	90	53.3	17.39	12.0	25.0	2.96
3. 46 – 60	22	13.0	15.18	9.0	20.0	2.55
4. Total	169	100	17.69	8.0	26.0	3.64
Marital Status						
1. Married	117	69.2	17.03	9.0	25.0	3.04
2. Unmarried	52	30.8	19.15	8.0	26.0	4.41
3. Total	169	100	17.69	8.0	26.0	3.64
Nationality						
1. Bangladeshi	140	82.8	17.70	8.0	26.0	3.71
2. Indian	26	15.4	17.69	9.0	23.0	3.51
3. Pakistani	3	01.8	16.67	16.0	18.0	1.15
4. Total	169	100	17.69	8.0	26.0	3.64

Feature	Frequency	Percentage	Mean correct answers	Minimum correct answers	Maximum correct answers	Standard deviation
Job						
1. AC maintenance	6	3.5	19.50	16.0	23.0	2.74
2. Carpenter	1	0.6	16.00	16.0	16.0	.
3. Electrician	1	0.6	20.00	20.0	20.0	.
4. Labourer	2	1.2	22.00	21.0	23.0	1.41
5. Plumber	7	4.1	20.85	18.0	24.0	2.48
6. Sanitary worker	152	89.9	17.41	8.0	26.0	3.64
7. Total	169	100	17.69	8.0	26.0	3.64
Education						
1. H. Secondary	3	1.8	21.33	21.0	22.0	.58
2. None	57	33.7	16.01	9.0	21.0	2.35
3. Primary	64	37.9	16.09	8.0	21.0	2.34
4. Secondary	45	26.6	21.82	12.0	26.0	3.16
5. Total	169	100	17.69	8.0	26.0	3.64
Source of Information						
1. Media	20	11.8	18.90	13.0	25.0	3.90
2. People	78	46.2	16.01	9.0	24.0	2.53
3. Social media	71	42	19.18	8.0	26.0	3.84
4. Total	169	100	17.69	8.0	26.0	3.64

DISCUSSION

COVID-19 is a global pandemic and the most serious health issue worldwide now days. There is a lot of research going on this issue addressing almost all sectors of the community but some sectors are still not properly approached like those with poor socioeconomic status with high exposure to the community. This study is aimed at one of such group i.e.; laborers, maintenance and sanitary workers.

This study was a questionnaire-based survey in which the less educated and poor socioeconomic sector of the community was addressed. In this study we aimed to know the level of their awareness regarding COVID-19, their knowledge regarding protective and preventive measures, and also their practices for preventing COVID-19.

In our study it was found that this sector of the community is lacking in awareness regarding this serious global pandemic as depicted by the statistics in TABLE 2 and 3.

In our study the most of the participants were not aware of the nature of organism responsible for COVID-19 as only 65 (38.5%) participants answered as organism to be a virus, rather majority of them even didn't know that it is caused by an organism. Regarding mode of transmission only one participant answered correctly the possible modes and the rest were unaware of the different modes of transmission just enumerating only one or two modes. Regarding clinical features, sign and symptoms only 16 (9.5%) participants were aware of the major symptoms, and the rest were unaware of the main symptoms of COVID-19 though they were able to enumerate one or two of these. Only 33 (19.5%) participants knew that a healthy-looking individual can harbour as well as transmit the virus to the people which is quite alarming as they can spread the virus even more widely without knowing it.

Regarding the knowledge about the practices to control the spread and transmission of the disease, participants were also lacking. They knew that practices like hand hygiene, social and physical distancing and use of face masks should be done but they were not fully aware of the correct methods of performing these practices.

The mean correct answers were 17.68(SD=3.64) which is quite low for such basic questions as compared to other studies done in different population groups of same region[14]. Studies done in this region favour this statement. One similar study done in general population of Iran regarding knowledge, attitude and practices against COVID-19 showed that they are much more knowledgeable (85% had good score) as compared to participants in our study (only20.7% with good score)[15]. Similar results were obtained from another study done in Palestinian population showing 74.4% of the population in the study had a good score[16].

Internationally one of similar study done in general population in South Korea showed that their level of awareness was slightly better than the population in our study (mean correct answers 70.2% compared to 68% in our study)[17].

One of the findings in our study was that people with younger age group that is 20 to 30 years of age were more aware of COVID-19 (Mean of correct answers = 19.12, SD=4.3) as compared to older age groups. This finding is quite consistent with the previous studies[18]. Other important finding was that the level of awareness was directly proportional to the level of education indicated by mean correct answers by participants with higher secondary qualification was 21.33 (S.D = 0.58) compared to that with no education as 16.01 (S.D = 2.35). This finding was quite expected as the studies previously done in such pandemics has shown the same trend[19,20]. One other finding which come to our notice that those participants whose source of information was social media were more aware of the pandemic with mean correct answers of 19.18(SD 3.84) which was higher than other participants whose source of information was media or other people.

It's a well-recognized fact that Saudi Arabia has done remarkable job in controlling this pandemic by vigorous preventive measures and awareness campaigns with support from all government departments notably Ministry of Health[21], Ministry of Interior[22], Ministry of Commerce and Ministry of Hajj and Umrah[23], the fact supported by the national and international statistic regarding COVID-19. In spite of all these measures, these populations are the loop holes which can prevent the control of this extremely serious global pandemic. This is because of their continuous exposure to a wide range of population in everyday life. This study is probably the first study to address such an important population group. This will help government and policy makers to concentrate on this population group as well so that they can be educated, trained and motivated to practice the preventive measures in order to control this global pandemic.

CONCLUSION

COVID-19 is one the most serious global pandemic in the human history. Since no proven cure until now is available, the sole way of combating this global disaster is the prevention through knowledge and practices by all the population groups especially those with higher exposure to the community like those under this study.

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