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TO EVALUATE THE PREPAREDNESS AND AWARENESS REGARDING COVID-19 AMONG DIFFERENT SECTION OF POPULATION: CROSS SECTIONAL SURVEY

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ABSTRACT

Background: Globally COVID was declared as pandemic by WHO in early March 2020. Various preventative measures are being opted to fight with the wide spread of the pandemic due to pandemic it is challenging for the govt to make people follow the preventive measures which is influenced by the awareness level about the disease. **Aim:** This study was aimed to assess the level of awareness and preparedness to fight against COVID-19 among the general population of the U.P, India. **Methods:** cross-sectional survey was conducted using a self preparedquestionnaire among the general population (age ≥ 15 years). The collected data were analyzed using statistical software. **Results**: Among 1,000 participants. Majority of respondents showed awareness of COVID-19 (98.7%) as a deadly, contagious, and life-threatening disease (90%) that is transmitted through human-to-human contact (90%). Respondents have received majority of information through social media were termed as the most reliable source of information by majority of the participants (314). Hand hygiene (37.7%) and social distancing (86%) were the most common preventive measures taken by respondents that were followed by avoiding traveling (89.6%) to an infected area or country. Significant proportions of Health care workers and students ($P < 0.05$) and more educated respondents ($P < 0.05$) showed adequate knowledge of the disease, and respondents from HCPshow appropriate preparedness for the prevention of COVID-19. **Conclusion:** it is critical to improve the awareness and preparedness growing need for the adoption of innovative local strategies to improve awareness in general population related to COVID-19.

KEYWORDS: coronavirus, pandemic, awareness, preparedness, healthcare works, questionnaire.

INTRODUCTION

Corona is a single stranded RNA virus that had its roots into the world from almost 60 years since its discovery in late 1960s. Corona viruses belong to the Corona viridae family in the Nidovirales order. The nomenclature of the Corona virus is named after the crown-like spikes on the outer surface of the virus structure. Coronavirus disease-2019 (COVID-19) was declared a "pandemic" by the World Health Organization (WHO) in early March 2020. Globally, extraordinary measures are being adopted to combat the formidable spread of the ongoing outbreak. Under such conditions, people's adherence to preventive measures is greatly affected by their awareness of the disease. Coronaviruses is caused through a virus which of RNA type and single stranded in nature and which is linked mainly for causing both problems with severe upper and lower (RTI) in both humans and animals species. It is mainly causing pneumonia like conditions in immunocompromised persons. Disease presentations are varying from asymptomatic to severe pneumonia and then death. In addition to increasing burden public health repercussions, the psychological effects of the pandemic on the mental health burden among infection survivors is studied. The COVID-19 pandemic has posed a significant health and economic challenge for the global and development of the community.[1] In less than a month, the global number of confirmed COVID-19 cases doubled from about 75,000 cases on February 20 to more than 153,000 on March 15 to reach 6,400,000 on June 2.[1, 2] That infection rate, as scary as it sounds, hides just how much the out-of-control virus has spread, especially in the hardest-hit communities. Efforts to completely contain the new coronavirus, responsible for infecting people in 213 countries and territories[2], have failed. Although the profile of the disease suggests that 80% of cases are mild, some 15% of people react severely while 5% become severely ill (septic shock, respiratory, and organ failure).[3] Severe cases affect patients with underlying conditions such as cardiovascular disease, hypertension, and diabetes or elderly; older age is a particular concern in many countries with aging populations.[3] Transmission can occur from person to person by droplets from an infected individual or contaminated surfaces or objects No known effective treatment for COVID-19 virus exists[5]; therefore, management is largely intensive supportive care.[5] Many experimental therapies including existing anti-infective agents, including antibiotics, antivirals, and antiparasitics, in addition to antibody therapy are being studied and may be useful in the future.[5] New molecules also continue to be evaluated and

tested as potential future antiviral therapies against the COVID-19 virus and others.[5] The most impactful intervention would be the implementation of an effective vaccine during an outbreak event. Many COVID-19 vaccine candidates are currently being studied in early phase trials. As there is currently no vaccine or specific medication to treat COVID-19[6], and because testing is so limited, the only way to flatten the curve[7] is through collective action. The US Centers for Disease Control and Prevention (CDC) has recommended that all Americans wash their hands frequently, self-isolate when they are sick or suspect they might be, and start "social distancing" (essentially, avoiding other people whenever possible) right away.[8] Governments across the world have responded to the pandemic with a set of actions including closures of schools and public attractions, implementation of travel bans, quarantines, and nationwide lockdowns.[9] Sequentially, the COVID-19 pandemic has created an unprecedented disruption of the economy.[10] In general, emergencies put health systems and their ability to deliver health care services under strain. Currently, health care services in the various regions around the world are being confronted with increased demand generated by the COVID-19 outbreak.[11]

METHODS

Respondents from general from (health care background, students, homemakers, Farmers, labours, Policemans, shopekeepers, professionals) etc were included in the study. They were interviewed during the period of Dec 2020 to May 2021 A pre-tested and self-prepared questionnaire was used toicollect information.

It consisted of questions regarding demographics, preparedness and awareness regarding Covid-19 among different selection of population. Kuppuswamy socioeconomic status scale (on urban area), and B.G. Prasad socioeconomic status scale (rural area) is taken.

The language of the questionnaire is English but we asked questions in hindi from the people who did not know English.

The purpose of the study was well explained and informed to the respondents. After obtaining consent, individuals were interviewed. Statistical Package for the Social Sciences version 16.0 was used to analyze the data. However, respondents who were below 15 years of age were excluded. After informed consent, interviews were conducted. The data was collected. This study based on the questionnaire. Questionnaire was self designed in which 51 questions based on preparedness, knowledge and awareness of population and 7 questions

related to the demographics details such as age, gender, residential area, education, occupation, socioeconomical class and income of the family. The questionnaire data collected manually from the participants and who participants did not know English or illiterate questions asked orally and by Phone calls.iSome questionnaire form filled with the help ofiWhatsApp and by the mails. Data collected from the different-different location of Ghaziabad such as schools, colleges, hospitals, industrial areas, villages, rural areas and urban areas.

Questionnaire

Self-prepared questionnairewasused to collect information. The questionnaire was composed of two parts: Part i-1: It included questions on demographics (age, gender, occupation, and education etc); Part-II: It included questions regarding as preparedness and awareness regarding Covid among different section of population.

Socio-demographicidetails.

[a]	**AGEIINIYEAR**
1	15-30
2	31-45
3	46-60
4	>60

[b]	**GENDERI**
1.	Male I
2	Female

[c]	**RESIDENTIALIAREA**
1.	Urban
2	Rural

[d]	**EDUCATION**
1.	Professioniorihonours
2.	Graduate or post graduate
3.	Primary school certificate Intermediate
4.	post high school diploma
5.	High school certificate
6.	Middle school certificate
7.	Primary school certificate Iliterate

[e]	**OCCUPATION**
1.	Profession
2.	Semiiprofession
3.	Clerical, ishopiowner, ifarmer
4.	Heathicareiworker
5.	Student
6.	skilled
7.	Semi-skilled
8.	Unskilledi
9.	Unemployedi

[f]	**SOCIO-ECONOMICICLASS**
1.	Uppericlass
2.	Upperimiddleiclass
3.	Middleiclass
4.	Lowerimiddleiclass
5.	Lowericlass

[G]	**IIFAMILYIINCOME**
	≥75000 upper class 30000-39500 upper middle class 10000-19500 middle class 1000-3500 lower middle class ≤1000 lower class

Statically Analysis- Data analysis were performed on IBM. SPSS-corp, SPSS- statics version 16.0 in which data was analyzed with descriptive statistics, mean frequency, compare mean, it were computedall demographic and general vaiables. Analysis were performed by T-test, ANOVA test, Chi-square test to known the data percentage of variables and answers of variables. And find out the relationship between variables by the significant value p ≤0.005.

RESULTS

As per the part-I studies conducted, out of the 1000 study participants about i46.3% were females and 53.7% were males. According to age, participants about 55.7% were between the age of 15-30, 28.6% were between the age of 31-45, 8.5% were between 46-60, and 7.2% above of 60. 37%iparticipants belonged to urban area and 63% participants belonged to rural area. According to the education participants, about 5% were Professionals and honours, 27.7% were Graduates and post Graduates, 11.2% were high school, 8.9% were middle school, 9.9% were primary school and 5% were illiterate. On the basis of occupation, participants were about 4.2% in proffesion, 4.5% in semi-profession, 21.3% were clericals, shopekeepers and farmers, 30% students, 7.9% participants were skilled, 8.8% semiskilled,

3.9% were unskilled and 8.6% were unemployed. The demographics of the study population areipresentediini Table.

Table no-2 (N=1000) Frequency percentage of participants according to Demographic characteristics.

S.no.	Variables		N(1000)	Percentage(%)
1.	Age	15-30	557	55.7
		31-45	286	28.6
		46-60	85	8.5
		<60	72	7.2
2.	Gender	Male	537	53.7
		Female	463	46.3
3..	Residential area	Urban	370	37.0
		Rural	630	63.0
4.	Education	Professioniorihonours	50	5.0
		Graduateioripostigraduate	277	27.7
		Intermediateioripostihighischoolidiploma	323	32.3
		Highischoolicertificate	112	11.2
		Middleischoolicertificate	89	8.9
		Primaryischoolicertificate	99	9.9
		Iliterate	50	5.0
5.	Occupation	Profession	42	4.2
		Semiiprofession	45	4.5
		Clerical,ishopiowner,ifarmer	213	21.3
		Heathicareiworker	103	10.3
		Student	305	30.5
		Skilled	79	7.9
		Semi-skilled	88	8.8
		Unskilled		3.9
		Unemployed	86	8.6
6.	Socioeconomic class	Uppericlass	102	10.2
		Upperimiddleiclass	144	14.4
		Middleiclass	478	47.8
		Lowerimiddleiclass	267	26.7
		Lowericlass	9	0.9
7.	Family income	<75000	91	9.1
		40000-74500	69	6.9
		30000-39500	125	12.5
		20000-29500	342	34.2
		10000-19500	167	16.7
		4000-9500	193	19.3

		1000-3500	11	1.1
		>1000	2	0.2

Following results were obtained from part-II studies including questions based on awareness of The overall knowledge, awareness and preparedness level score is interpreted, As perthe study it has been reported that this percentage of the person were aware and prepared about Covid 19 pandemic. In1000 participants, 56.9% were having good knowledge, whereas 15.9% were having poor level of knowledge and 27.2% were having no knowledge and awareness about Covid 19. The preparedness level regarding covid 19 among the participants. The significant value range up to (p value $\geq$ 0.005), if variable have p value $\geq$ 0.005 the variable have relation, if they have more range they have no relation. 106 participants recovered person of covid 19 from urban area and 115 participants from rural area.

According to the gender majority of awareness in male of participants, males were more aware and had more knowledge than female. According to residential area, majority of awareness and knowledge, urban area's participants more aware, knowledgeable than rural area's participants. The majority of preparedness more in urban area's people than rural area.

Frequancy and Percentage Regarding Awareness and Preparedness Of Participants

Questions regarding knowedge about covid	**YES**	**NO**	**DON'T KNOW**
About the source of covid	349	316	335
Causative agent of covid	66	701	233
Whether it is spread from person to person?	770	65	165
Incubation period of infection	645	60	285
Symptoms of COVID 19	621	105	274
COVID 19 is curable disease	638	44	276
Whether covid is affecting all age groups of people	680	44	276
It can be prevented by wear mask?	637	150	129
It can be prevented by proper washing hand	268	316	416
Whether person with immunocomprised state are more susceptible	662	112	226
Whether it is more dangerous for the people above 50 year of age	684	103	213
Whether it is more dangerous for the people who has combordities	540	94	366
Whether is more dangerous for the people consuming smoking	656	106	238
Whether leads to death in all cases	514	211	275
Whether it can be treated at home	576	127	297
Isolation is a treatment of COVID 19?	407	258	335
Is person with good immunity can be cure without any treatment?	300	364	336
Prevention and control of COVID 19 can be done by physical distancing	367	333	300

Use of protection measures	**N**	**%**
Social distancing (avoid personal contact)	900	90
Hand hygiene	378	37.8
Use face mask	860	86
Avoid travel to infected area or country	780	78
Don't know	200	20
Awareness regarding Preparedness Against COVID-19	Frequency	%
People of Elderly age ≥ 65 years are at risk	700	70
People with comorbidities are at risk	369	36.9
Health care workers at risk	500	50
Workers doing in work in animal market	200	20
Awareness regarding Current Treatment available for COVID	N	%
Isolation and quarantine	471	47.1
Safety measures	450	45.0
Vaccination	300	30
Don't know	19	19.1

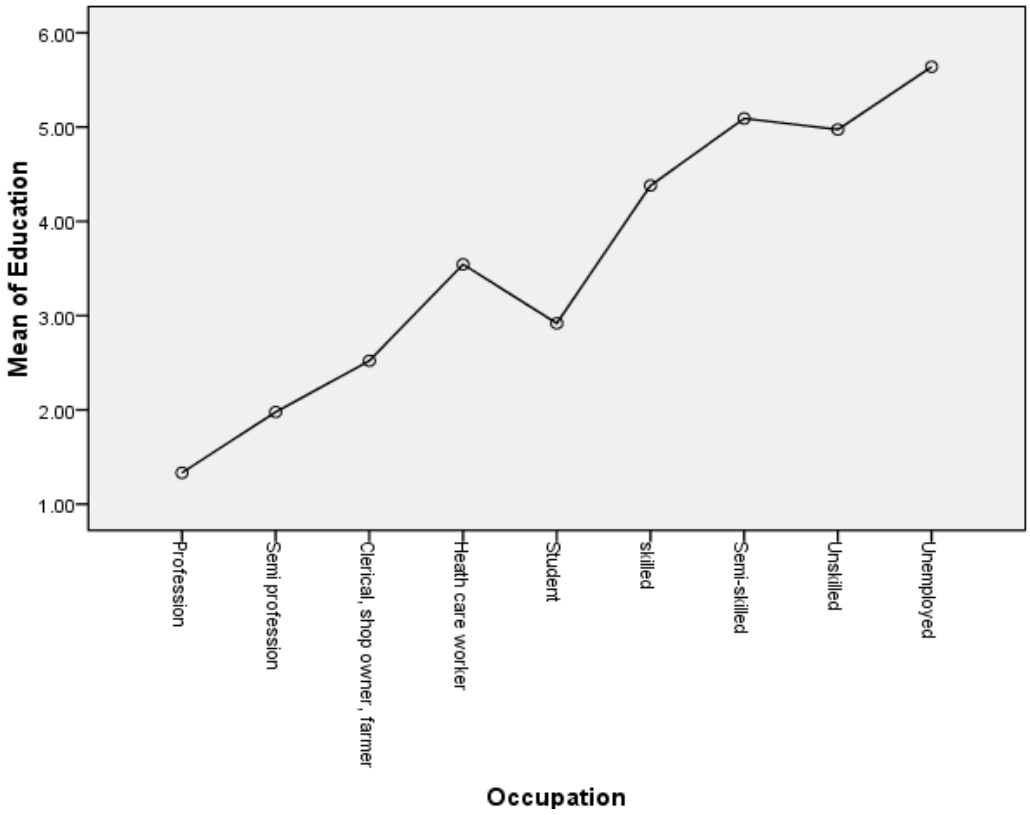
As per study it is evident that majority of the respondents were aware about the source of covid infection its transmission rate its symptoms.so it is stating that respondents were having moderate knowedge about the pandemic caused covid.

Respondents include health care workers (Doctors, Nurses, pathologoist technicians & Pharmacists) and people from other section like Students (graduate, post graduate), Daily wages workers.) The knowedge among health care workers & students were found adqueate in comparsion of daily wages workers. the section of the people coming from background like semiskilled& unskilled, shop owner and farmers were moderate and low. they were not aware about cause and symptoms of disease. Majority of them(Health care workers & students) were agreeded on the fact that covid is a cureable disease and can affects all age group of people. but people coming from low socio-economic background & education level were ignorant, lack of awareness, presence of social tabaoos were found in the those section about the disease and its facts.

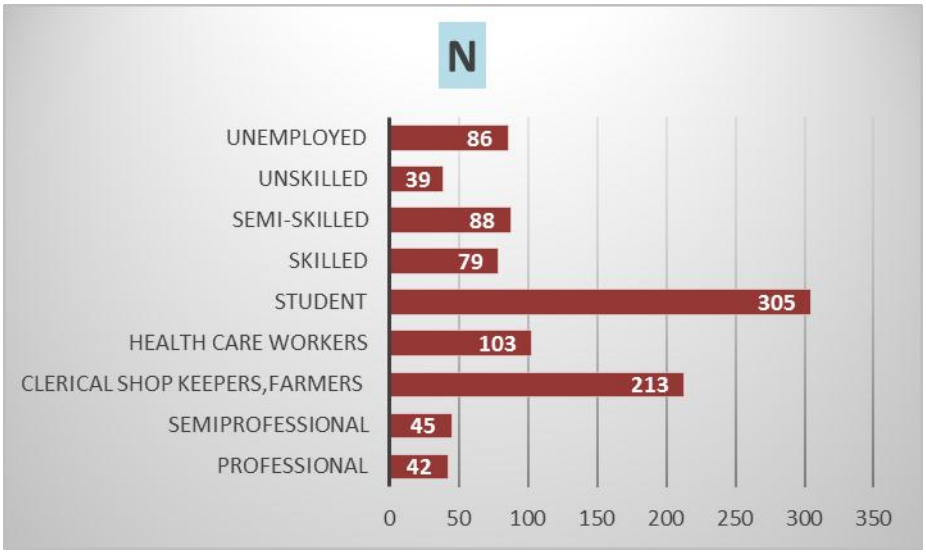
Respondent's were aware about the facts that people with co-mordibities and age of 60 years were more susceptible for infection the awareness level is found to be N(680). it is ananlysed from the studies that according to these survey it is observed through investigation with the help of questionnaire that respondents think that health care workers can generally more

prone to infection due to their nature of job with patients N(500).few people around 20% think that people working in animal market were also susceptible for COVID.

As far the questionnaire related to preparedness is concerened the maximum around 90% of the people (respondents) think that use of personnel protection measures can be preventive measure against the covid. but this awareness and preparedness is seen more in health care workers as compared as to other section from the population. various semiskilled, unskilled workers were not aware about the facts of social distancing and avoiding personnel conact and were not much aware about the regular use of face mask, hand hygiene sanistation, avoiding travelling to infected areas and crowded places(N=378) 20 % of the respondents were clueless about the preventive measures.



There is significant correlation found between knowledge question of symptoms, communicability of disease and consequences of pandemic ($p < 0.005$)



From the(N=1000)data the majority of the respondents according to occupation were students(305), clerical staffs, shopkeeper and farmer(N=213), heath care workers(N=103) semi-skilled (N=88), unemployed(N=86), semi-professional & professional(45 & 44).

DISCUSSION

As the outbreak of COVID-19 is expanding exponentially, Ithas created havoc and dismay amongpeople. This disease is successful in inducing restlessness, confusion, and fear among the people. Awareness &preparedness regarding the disease are important parameters for opting protective measures that decrease the chances of exposure to viral infection. This study findings suggest that respondent antswho are less educated and who are respondents who are from non-medicalbackgroundpossess less knowledge of COVID-19 disease and preventive measures than their counterparts. Therefore, there is need to for more health promotion and awareness programs are warranted to address these particular sections of the population. Thus, COVID-19 awareness programs and other educating strategies should be developed and implemented more effectively to eradicate this disease and increase the breadth of knowledge of rurally and minimally educated populations. The strength of the study lies in its large sample size, recruited during a crucial period—the early stage of the COVID-19 outbreak in Ghaziabad Nevertheless, this was an online self-reported surveymostly conducted, and this affected our outreach to the general population.

The awareness by the studied populations is moderately adequate, but lacking in specific measures such as transmission and treatment awareness. The rural and urban both the populations have perceptions toward the COVID-19 pandemic, hence their comparable

cultures. The present study shows awareness regarding COVID 19, including knowledge, preventative practices, and preparedness in general and special population. The results of this study shows that the majority of respondents were aware of the knowledge and preventive measures but not well prepared against COVID-19. the awareness and their preparedness among educated and Health care worker populations were fairly satisfactory. The most of the responder were not clear about the transmission among the participants. The preparedness can be improved into practices toward COVID-19 prevention. To conclude, these findings suggest that general population demonstrated moderate knowledge, positive attitudes regarding COVID-19 during the outbreak. The Concerned authorities and government should grant time and resources to raising awareness through official network and social media campaigns, to help the population to overcome the risk of the pandemic. The present study sheds light on the current level of awareness regarding COVID 19, including knowledge, preventative practices, and preparedness in the state of U.P in Ghaziabad region The results of this survey indicated that the majority of respondents were aware of the knowledge, preventive measures and well prepared to fight against COVID19. It was evident that the community's overall COVID-19 awareness and their preparedness among educated and HCWs populations were fairly satisfactory. However, there were few misconceptions regarding the mode of COVID-19 transmission among the participants, which need to be addressed. Knowledge and preparedness do translate into improved practices toward COVID-19 prevention and the same was reflected in this study. In order to achieve complete control over COVID-19, it would also be worthwhile to invest in various COVID-19 prevention efforts, including health education and innovative strategies based on local evidences to raise the community's awareness and to improve its preventative practices

CONCLUSION

This study highlights a very important but neglected point that is awareness of preparedness, Since, preparedness about the COVIDseems to be deficient in some sections of population. We therefore recommend that this should be addressed either by conducting awareness campaigns or educating the general population through media and health professionals. Most importantly, short training sessions/workshops should be arranged specifically for HCP, common public to educate them as to which explanation/description should be given to patients seeking or requiring help during emergency conditions in pandemic.

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