

Knowledge on Preparedness and Prevention Response of COVID-19 among Teachers of Bule Hora University, Oromia Region, Ethiopia 2021

Ms.SarahEzhil Kelna Edwin¹, Dr.Tamiru Anole², Mr. Clement Raj A³, Mr.Nurye Sirage⁴, Mr.Takala Utura⁵, Dr. Sanjay Shinde⁶, Mr. Girish Degavi⁷.

¹Midwifery Department, College of Health and Medical science, Bule Hora University, Bule Hora, Ethiopia

²Academic Vice President, Bule Hora University, Bule Hora, Ethiopia

³Department of Electrical and computer Engineering, Bule Hora University, Bule Hora, Ethiopia

⁴Midwifery Department, College of Health and Medical science, Bule Hora University, Bule Hora, Ethiopia

⁵Dean, College of Health and Medical Sciences, Bule Hora University, Bule Hora, Ethiopia

⁶Nursing Department, College of Health and Medical science, Bule Hora University, Bule Hora, Ethiopia

⁷Nursing Department, College of Health and Medical science, Bule Hora University, Bule Hora, Ethiopia

Summary

Background: COVID-19 has been a cause of worldwide alarm and a pandemic as The World Health Organization announced the outbreaks. Education is important, but Covid-19 made it too difficult. Only teachers can protect students by adhering to guidelines in order to ensure a safe and secure educational environment. This study was to assess the knowledge on prevention response and preparedness of Covid-19 among teachers of Bule Hora University, Oromia Region, Ethiopia. To have a safe environment for the students to have quality education by following all the guidelines.

Methods: A cross-sectional study was conducted in Bule Hora University on academic staff. Simple random sampling technique was employed to select 421 teachers as study participants from various colleges. The data were collected by using a pretested structured self-administered questionnaire. The collected data were exported to statistical package for social science (SPSS) version 25.0 for analysis.

Results: The majority of the respondents (52.7%) were post graduated teachers. The overall prevention knowledge prevention response and preparedness of the participants towards the novel coronavirus (COVID-19) was high. About 91.2% of the participant was heard about the novel coronavirus disease and Social Medias' (70.3) were the main source of the information. About 73.9% of the respondents have good knowledge on prevention of Covid-19. 84.3% of the respondents have good knowledge on preparedness of Covid-19. Out of 421 participants, 73.9% and 84.3% % of the participants were having good knowledge which gave hope to the university to reopen and have safe education by following all preventive protocols to prevent students from acquiring covid-19.

Conclusions: Majority of the participants had knew the ways of protecting themselves from the Covid-19. But, there was deficiencies of changing these prevention knowledge to practice. Faculty development programs and providing adequate resources can help the teachers to follow the protocols.

Keywords: Covid-19, Prevention Response, Preparedness, Teachers, Students

Background

The novel-corona virus outbreak is now a global health threat and a public health emergency of international significance [1.]. The epidemic rapidly spread through the region, crossing the border, and the World Health Organisation declared it a Public Health Emergency of International Significance in late January 2020. [2].

The novel corona virus is distributed by large droplets formed by symptomatic and asymptomatic patients while coughing and sneezing. As a consequence, regular handwashing with soap and water, as well as the use of sanitizer or alcohol, is crucial. Fever (not always), cough, sore throat, fever, exhaustion, headache, myalgia, and breathlessness are all typical clinical characteristics.(3).

To stop the spread of COVID-19, Ethiopia has implemented a variety of preventive and control initiatives. This include closings, staying at home, maintaining social and physical distances, placing hand washing basins in public areas (banks, churches/mosques, markets), and declaring a nationwide state of emergency.[4].

Ethiopia, being one of the developing countries trying to address the diverse needs of its people, is currently at the verge of the epidemic. The government is now displaying a firm commitment to controlling the outbreak until it has a substantial effect on the population. In addition to the prevention measures placed in place, such as encouraging mutual distancing and sanitary measures, initiatives such as case detection, touch tracing, separation, and quarantine are being taken to control the transmission of the disease.[5].

IHE administrators should collaborate with health departments to foster safe and balanced learning conditions in Institutions of Higher Education (IHEs) to reduce the incidence of corona virus disease in 2019. (COVID-19). IHE administrators play an important role by taking steps to slow the spread of disease to prevent outbreaks, and protect students, staff, and faculty. IHEs should be prepared for COVID-19 outbreaks in their populations that may introduce infection to the IHE, detection of cases among students, staff, and faculty, and possible COVID-19 exposure(s) that may occur at IHE facilities or activities, regardless of the extent of population transmission.[6].

Following the World Health Organization's announcement of COVID-19 as a pandemic on March 12, 2020, Ethiopian educational institutions closed on March 16, 2020. The Ministry of Education of Ethiopia developed a 'Concept Note for Education Sector COVID-19 Preparedness and Response Plan' on 3 April 2020. The objective of the response plan is to ensure the continuity of general education, which was disrupted by the COVID-19 pandemic, and contribute to the effort of containing the spread of the virus.

The core strategies of the response plan of the Ministry of Education are as follows: "The policies advocate using new platforms, such as e-learning secondary education and multi-media outlets for primary schools, to keep learning going at all stages when schools are closed due to COVID19." In addition, the plan recommends providing school feeding for vulnerable children. But the students in remote areas were not able to access the eLearning system of education. Following a rigorous inspection and the creation of protocols and recommendations, the Ministry of Science and Higher Education, as well as all universities, agreed to reopen educational institutions. Bule Hora University was Ethiopia's second university to obtain approval from the Ministry of Science and Higher Education, after Addis Ababa University. Teachers have frequent interactions with students,

so they should be well-versed in the covid-19 preparedness and prevention response by following all guidelines of world health organization and ministry of science and higher education.

significance of the study

We consider interventions that can help minimize exposure to the disease and reduce the likelihood of infection among learners, students, instructors, and non-teaching staff at university in the form of classrooms and learning environments. We must keep in mind that school-based preventive efforts alone can not deter the disease from spreading, but improved vigilance and hygiene will probably slow its spread. (1).

This research would be useful to a variety of stakeholders that are dealing with problems relating to Covid19. Findings from the study will be providing information for the Bule Hora university management to develop strategies and guidelines for scaling the good knowledge of Teachers regarding preparedness of covid19 as an important measure to prevent covid19 among students. Firstly, this study will provide information to teachers regarding covid19 which will help them in proper preparedness of covid19. Secondly, the finding of this study will be important to those with closely related research interests regarding prevention of covid19 among students. Researchers may also use the information that will be generated from this study for further study regarding covid19.

Review of Literature

2.1 Knowledge on prevention response of Covid-19

UNICEF (2020) states children and young people are global citizens, powerful agents of change and the next generation of caregivers, scientists, and doctors. Any crisis presents the opportunity to help them learn, cultivate compassion and increase resilience while building a safer and more caring community. Having information and facts about COVID-19 will help diminish students' fears and anxieties around the disease and support their ability to cope with any secondary impacts in their lives. This guidance provides key messages and considerations for engaging school administrators, teachers and staff, parents, caregivers and community members, as well as children themselves in promoting safe and healthy schools(7).

Yohannes Kebede, Yimenu Yitayih.(2020)conducted a cross-sectional study on 247 sampled visitors, from 20–24 March 2020. Consecutive sampling was used to recruit the participants. The

study tools were adapted from WHO resources. This study aimed to assess the knowledge, perceptions, and practices among the Jimma University medical center (JUMC) visitors in Jimma town. Of the 247 respondents, 205 (83.0%) knew the main clinical symptoms of COVID-19. 72.0% knew that older people who have chronic illnesses are at high risk of developing a severe form of COVID-19. About 95.1% knew that the COVID-19 virus spreads via respiratory droplets of infected people, while 77 (31.2%) of the respondents knew about the possibility of asymptomatic transmission. Only 15 (6.1%) knew that children and young adults had to involve preventive measures. Overall, 41.3% of the visitors had high knowledge. The majority, 170 (68.8%), felt self-efficacious to controlling COVID-19. 207 (83.3%) believed that COVID-19 is a stigmatized disease. Frequent hand washing (77.3%) and avoidance of shaking hands (53.8%) were the dominant practices. Knowledge status and self-efficacy (positively), older age, and unemployment (negatively) predicted hand washing and avoidance of handshaking. The status of knowledge and desirable practices were not sufficient enough to combat this rapidly spreading virus. COVID-19 risk communication and public education efforts should focus on building an appropriate level of knowledge while enhancing the adoption of recommended self-care practices with special emphasis on high-risk audience segments (8).

Zhang, M., Zhou, M. (2020) conducted a cross-sectional study on the current COVID-19 pandemic is effectively constrained by intensified public health measures in China, among which ubiquitous education plays a vital part. Objective of this survey aims to understand the status quo acquisition of the ongoing public health education campaign among university students. This survey investigated the knowledge, attitude and practice (KAP) associated with COVID-19 among university students during their household isolation at the peak of this pandemic. 872 university undergraduates were recruited from 10 universities in Shaanxi Province, China, in a stratified cluster sampling method. A self-administered and close-ended questionnaire was answered by subjects online voluntarily and anonymously to collect their answers regarding their KAP associated with COVID-19. Most university students acquired necessary knowledge, positive attitude and proactive practice towards COVID-19, but their KAP score significantly varied by gender, major and school type (9).

Saefi M, Fauzi A. 2020. Conducted a study to assess Knowledge, attitude, and practice among Indonesian undergraduate students. The data were collected during first month of college or

university closure due to COVID-19 through a survey distributed via an online questionnaire, assessing sociodemographic information (6 items), knowledge (18 items), attitude (6 item), and practice (12 items), from 27th April and 2nd May 2020, gathering a total of 6,249 responses. A combination of purposive and snowball techniques helped to select the respondents via Whatsapp from more than ten universities in Indonesia. The survey data were analyzed using descriptive and inferential statistics. The data will assist in preventing and curbing the spread of COVID-19 in the university and can assist with planning for educational interventions for students' awareness[10].

2.2 Knowledge on preparedness of Covid-19

Abay Woday Tadesse, Negesse Melese. (2020). Conducted a cross sectional study among 422 students. The sample was proportionally allocated into the randomly selected four colleges and the students were recruited using a systematic random sampling technique. This study involved 408 students with response rate of 96.6%. The level of good knowledge, positive attitude and good practice were 69.6%, 56.6% and 65% respectively. After adjusting for covariates; being in the late adolescent age group (16-20), living with > 5 family size, and being single were predictors of knowledge level. Besides, being single, learning Diploma (TVET) level trainings, and being year-two students were predictors of attitude levels. Similarly, urban residence, being regular students, and being year-one students were the independent predictors of practice level of students. Conclusions: The national and local governments should develop effective and inclusive prevention strategies to address students who are at home due to COVID-19 pandemic(1 1).

Hyseni Duraku, Zamira & Hoxha, Linda. (2020). The impact of COVID-19 on education and on the well-being of teachers, parents, and students: Challenges related to remote (online) learning and opportunities for advancing the quality of education. The aim of this study is to explore and describe the concerns of students, parents, and teachers related to the circumstances caused due to social isolation, and the perspectives of teachers and parents with regard to remote or online learning. This study adopted the qualitative research design. The findings of this study confirm the readiness and motivation of teachers to advance their knowledge and skills, as well as to contribute with the aim of advancing the quality of education. Opportunities to advance the

quality of online learning, the support of teachers, parents, and families, coupled with practical suggestions for parties involved in the field of education, are also included(12).

Corey H Basch, Grace C Hillyer(.2020)conducted a cross sectional study Accurate information and guidance about personal behaviors that can reduce exposure to severe acute respiratory syndrome coronavirus 2 are among the most important elements in mitigating the spread of coronavirus disease 2019Fewer than one-third of the videos covered any of the seven key prevention behaviors listed on the US Centers for Disease Control and Prevention website[13].

Methodology

This study was conducted at Bule Hora University which is established 2012 G.C.Bule Hora University is located in West Guji Zone , Oromia Regional State of south Ethiopia at 467 km far from Addis Ababa.Bule Hora University is the dynamic and enlarging university with students from different part of Ethiopia. The University has 164 programs, 89 undergraduates, 69 Masters and 10 PhD; and 10,542 regular, 6578 extension, totally 17,120 students (16,368 undergraduate, 752 postgraduate); with 11053 academic staff and 3239 admin staff, under eight colleges, one school and one institute, namely College of Natural and Computational Sciences, College of Agriculture, College of Engineering and Technology, College of Social Science and Humanities, College of Business and Economics, College of Health and Medical Science, College of Informatics, College of Educational and Behavioral, School of Law and institute of Gada and Cultural Study. The University has laid down structure for relevance and quality of education, research community service, and good governance.More than 15000 undergraduate, post graduate and Ph.D. studentsattending regular and weekend courses.

Across-sectional study was conducted from January 2021 to March 2021 in Bule Hora university and the participants were teachers of Bule Hora University. Simple random sampling technique was employed to select 421 teachers as study participants from various colleges. The data were collected by using a pretested structured self-administered questionnaire. The collected data were exported was entered and checked Epi-data, and exported to statistical package for social science (SPSS) version 25.0 for analysis.

Sample size determination and sampling procedures:

Sample size is determined using standard formula for single population proportion based on the following assumptions.

$$n = \frac{z \left(\frac{\alpha}{2} \right)^2 * P(1 - p)}{d^2}$$

- **Where;**
- **n**= the desirable calculated sample size
- **Z (α/2)** =1.96 (95% confidence level of the survey)

P =50. % proportion

d = degree error tolerated (5%)

From Formula, no= (1.96)² (0.506) (1-0.506)/ (0.05)²=383.

The minimum sample size for this study was **421** by adding 10% non-response rate.

Bule Hora University all colleges were included in the study, 8 colleges and 1 school will be selected using a simple random sampling technique. The sample size were proportionally allocated to each selected colleges. Number of teachers attending in each colleges will be selected using a systematic random sampling technique by k^{th} interval. The total number of teachers in the Bule Hora University are 793. Health Science College (130), Engineering College (250) and natural and computational science college (150). Finally proportionally selected 3 Colleges were used in this study. Finally based on k^{th} formula the targeted samples will be accessed for data collection. In this study the k^{th} level is 2 every 2nd teachers will be interviewed. Therefore the sample size is 421.

Data Collection Tools and Technique

Structured questionnaire at university setting was used to collect data. The questionnaire was initially drafted in English pre-tested in other than study area. Data collection time to assess the

suitability of the questionnaire with regards to duration, language appropriateness, content validity and question comprehensibility. Some amendment had made after the pretest.

The questionnaire were prepared by using Yes or No and we have dichotomized it for analysis and we categorize knowledge level in to two poor and good knowledge, teachers who have answered $\geq 70\%$ of knowledge level questions considered as they have good knowledge and if $< 70\%$ poor Knowledge on preparedness and prevention response of Covid-19 among teachers of Bule Hora University. The questionnaire consists of demographic information such as gender, age, department of the teachers.

Quality Control Measures: The quality of the data was assured by using standard, pre-tested questionnaires and proper data collection procedure. Prior to the actual data collection, pre-testing was done on 5% of the total study subjects at Bule Hora university which will not be included in the actual study and based on the findings necessary amendments were made regarding its consistency, clarity and logical adequacy and time it take to complete Questionnaire. The data collectors work under close supervision of the supervisors to ensure adherence to correct data collection procedures, supervisors and investigator reviewed the filled questionnaires at the end of data collection for completeness.

Data Processing and Analysis

The data was coded, checked for error, missing value must dealt with and cleaned data(edited) will be entered into Epi-Data version .3.1 and exported to SPSS Statistics Version 25 for analysis.

Descriptive statistics including mean, median, standard deviation, range, cross-tabulations and proportions were computed. The model fitness was checked by the Hosmer-Lemeshow goodness of fit test before the regression analysis. Descriptive statistics was employed to summarize the knowledge level of this study.

Results and Discussions

Socio demographic characteristics of participants

Participant characteristics		Frequency	Percentage (%)
Gender	Male	375	89.1
	Female	46	10.9
Age	20-25	74	17.6
	26-30	266	63.2
	31-35	54	12.8
	35-40	27	6.4
Qualification of the respondent	Undergraduate	192	45.6
	Masters	222	52.7
	PhD	7	1.7
College of the respondent	Engineering	178	42.3
	Health	93	22.1
	Computational	150	35.6
Source of information	Media	294	70.3
	Family	7	1.7
	Friends	21	5.0
	Gov't awareness campaign	42	10.0
	Medical Care Providers	44	10.5
	work Place	10	2.4

In this study, a total of 421 teachers were interviewed making the response rate to be 100%. The Socio-demographic characteristic of the respondents is described in Table 1. More than half 89 % of the respondents were in the male teachers and female teachers were 10.9%. Similarly categories. Age group of the teachers 17.6% of teachers Age group 20-25 years, 63.2% were age group between 26-30 years, 12.8% of teacher's age group between 31-35 years and 6.4% were in the age group of 35-40 years. No teachers were the respondent in the age group above 40. 45.6% of teachers are undergraduate teachers, 52.7% were postgraduate teachers and 1.7 % of teachers were Ph.D. holders. 42.3 % of teachers belong to Engineering College, 22.1 % of teachers belong to college of Health science and 35.6% of teachers belong to Natural and Computational Sciences College. The source is through media 69.8% teachers came to know about covid-19, through family 7%, through friends 5.0%, by government awareness campaign 10.0%, through medical providers 10.5% and in work place it is 2.4%.

Knowledge on preparedness of Covid-19

A. Knowledge question on preparedness of Covid-19	Yes Y (%)	No N (%)
Early identification, isolation and care of COVID-19 cases is essential to limit the spread of the disease	383(91.0)	38(9.0)
If a person seems healthy, can they be a carrier for the virus?	291(69.1)	130(30.9)
Assess each resident twice daily for the development of a fever ($\geq 38^{\circ}\text{C}$), cough or shortness of breath. Immediately report residents with fever or respiratory symptoms to the IPC focal point and to clinical staff	332(78.9)	89(21.1)
As a teacher are you aware enough to face the Corona pandemic and protect your students from acquiring Corona?	383(91.0)	38(9.0)
Everyone is at risk of getting COVID-19. You could spread COVID-19 to others even if you do not feel sick	327(77.7)	94(22.3)
Always enter the classroom with PPE (Personal Protection Equipment). After use, it has to be discarded according to biomedical waste management rules.	333(79.1)	88(20.9)

The table 2 represents the knowledge on Preparedness of Teachers of Covid-19. Total of 421 teachers were surveyed for this research, of this 84.3% has demonstrated good knowledge on Preparedness of Covid – 19. Especially they have good knowledge about early identification, isolation and care of Covid-19 and also in how to face and protecting the students from acquiring Corona.

Knowledge on prevention of Covid-19

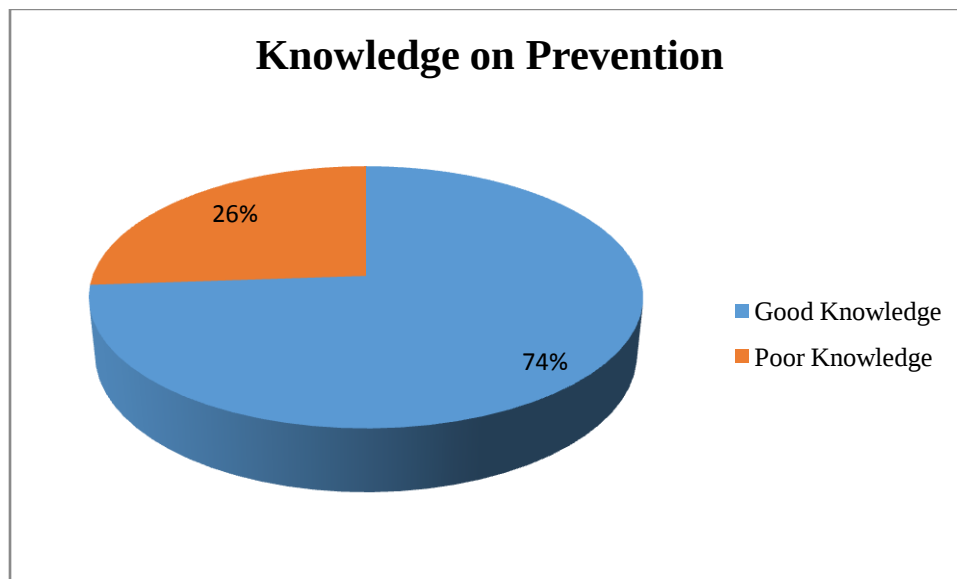
Knowledge question on prevention of Covid-19	Yes Y (%)	No N (%)
B. Knowledge on Hand Hygiene & Disinfectant		
Do you encourage hand washing with soap and water for a minimum of 40 seconds or with alcohol based hand rub for a minimum of 20 seconds after each contact with person, materials or surface?	390(92.6)	31(7.4)
Do you advice students to use foam producing liquid soap solutions and avoid bar soaps?	329(78.1)	92(21.9)
While hand washing did you scrub the backs of your hands, your wrists, between your fingers and under your nails?	368(87.4)	53(12.6)
Any disinfectant can be the most appropriate sterilization to eliminate virus from contaminated surfaces?	300(71.3)	121(28.7)
C. Knowledge on Social Distancing		
Have you enforce a minimum of 1 meter distance between each person and advice to avoid touching (e.g. Shaking hands, hugging, or kissing)?	362(86.0)	59(14.0)
Waving, Nodding and Bowing are the best way to greet people to maintain social distance.	346(82.2)	75(17.8)
You may also be able to get it by touching a surface or object that has the virus on it, and then by touching your mouth, nose, or eyes.	354(84.1)	67(15.9)
All students should be screened for signs and symptoms of acute respiratory infection or significant risk for COVID-19 frequently, and no one with signs or symptoms should be allowed to enter the classroom.	326(77.4)	95(22.6)
Minimize the use of sharing of stationaries like papers, pens, stapler etc. Teacher should only handle the registers like attendance, Marks card etc.	337(80.0)	84(20.0)
D. Knowledge on use of Mask		
The mask is meant to protect other people in case you are infected. Continue to keep about 6 feet between yourself and others. The mask is not a substitute for social distancing.	348(82.7)	73(17.3)
Do you wear a mask over your nose and mouth to help prevent getting and spreading COVID-19?	399(94.8)	22(5.2)
When you feel suffocating did you put the mask around your neck or up on your forehead?	256(60.8)	165(39.2)
Appropriate use of face masks is a key for the effectiveness of the measure and can be improved through education campaigns.	394(93.6)	27(6.4)
Using a clean cloth mask which covers both nose and mouth is adequately enough to protect from Covid-19 spread.	273(64.8)	148(35.2)

Table 3 explains knowledge of teachers on the Hand hygiene, use of disinfectants, social distancing and use of masks. Almost all Teachers (more than 80%) have Good Knowledge about this.

Here the total questions are grouped into two

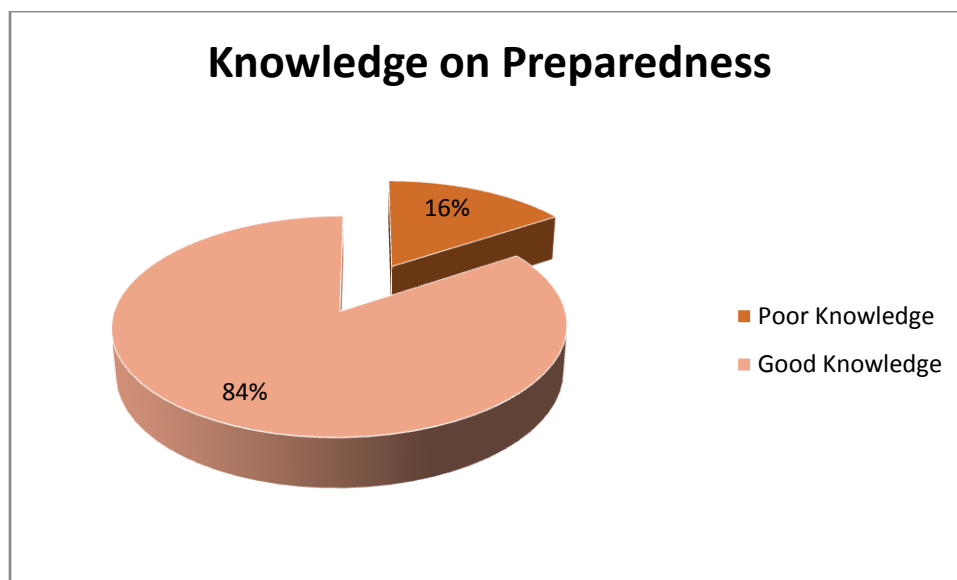
- Knowledge on Prevention
- Knowledge on Preparedness

Knowledge on Prevention.



In this study, 311(74%) Teachers had good prevention knowledge towards COVID-19. The majority, 390(92.6%) and 368(87.4%) teachers have good knowledge about the purpose and the correct procedure for hand washing. Similarly they have understanding of maintaining proper social distancing (minimum 1 meter distance) and not favoring the students doing handshaking, hugging and knows the best way to greet people like waving, nodding and bowing. When coming to usage of masks 399(94.8%) teachers have good knowledge about the purpose of masks in preventing Covid-19. But their knowledge has to be improved especially when there is suffocation. Because 256(60.8%) have poor knowledge about wearing the masks during suffocation as there is a change of virus spread from nose or forehead when they put the mask around neck or forehead at the time of suffocation.

Knowledge on Preparedness



Regarding the knowledge on Preparedness, 355 Teachers (84.3%) have good knowledge about the preparedness. They need additional knowledge about even a healthy person can be the carrier of virus, as 130(30.9%) have poor knowledge about it. Teachers have strong knowledge in protecting the students from Covid-19. 383(91%) have strongly agree about the aware enough to face this pandemic and protecting the students from acquiring it.

Socio-demographic characteristics of respondents by their knowledge on prevention and preparedness of covid-19

Participant characteristics		Frequency	Percentage (%)	Knowledge on prevention (Mean±SD)	Knowledge on preparedness (Mean±SD)
Gender	Male	375	89.1	11.60(1.964)	4.21(1.104)
	Female	46	10.9	11.02(2.371)	3.91(1.007)
Age	20-25	74	17.6	11.16(2.387)	3.81(1.449)
	26-30	266	63.2	11.50(2.021)	4.20(1.071)
	31-35	54	12.8	12.37(1.405)	4.52(.693)
	35-40	27	6.4	11.30(1.463)	4.30(.465)
Qualification of the respondent	Undergraduate	192	45.6	11.36(1.874)	4.09(1.044)
	Masters	222	52.7	11.63(2.114)	4.25(1.140)
	PhD	7	1.7	13.29(1.890)	4.14(1.069)
Source of information	Media	294	70.3	11.61(2.004)	4.12(1.087)
	Family	7	1.7	8.14(2.673)	4.43(.535)
	Friends	21	5.0	10.67(.796)	4.10(1.480)
	Gov't awareness campaign	42	10.0	11.64(1.462)	4.40(.939)
	Medical Care Providers	44	10.5	11.98(2.454)	4.32(1.272)
	work Place	10	2.4	11.80(1.317)	4.40(.516)

The mean and standard deviation of the respondents knowledge on prevention of the Covid-19 was 11.54±2.017 and the mean and standard deviation of the respondents knowledge on preparedness of the Covid-19 was 4.18± 1.097

Ethical Consideration

Ethical clearance was obtained from Bule Hora University. Permission was taken from selected colleges of Bule Hora University and verbal consent was taken from each respondent. To get full co-operation, respondents were reassured about the confidentiality of their response. They were participating in the study voluntarily (right to take part or terminate at any time they wanted). The research assistants were trained by the principal investigators on how to keep the confidentiality of all respondent responses.

Dissemination of the Findings

The finding of the study was disseminated to all relevant stakeholders through presentation and publication after final defense. Therefore, to benefit the participants of the study, the copy of the final report of the study was given to the Bule Hora university administrative bodies and the report is submitted to the Research and Publications office of Bule Hora University. In addition to the aforementioned one, the study will be published on peer reviewed scientific journal and it will be disseminated to different national and international agencies.

Discussion and Conclusion

In this study, a total of 421 teachers were interviewed making the response rate to be 100%. The Socio-demographic characteristic of the respondents is described in Table 1. More than half 89 % of the respondents were in the male teachers and female teachers were 10.9%. Similarly categories. Age group of the teachers 17.6% of teachers Age group 20-25 years, 63.2% were age group between 26-30 years, 12.8% of teacher's age group between 31-35 years and 6.4% were in the age group of 35-40 years. No teachers were the respondent in the age group above 40. 45.6% of teachers are undergraduate teachers, 52.7% were postgraduate teachers and 1.7 % of teachers were Ph.D. holders. 42.3 % of teachers belong to Engineering College, 22.1 % of teachers belong to college of Health science and 35.6% of teachers belong to Natural and Computational Sciences College. The source is through media 69.8% teachers came to know about covid-19, through family 7%, through friends 5.0%, by government awareness campaign 10.0%, through medical providers 10.5% and in work place it is 2.4%.

Knowledge on Preparedness of Teachers of Covid-19. Total of 421 teachers were surveyed for this research, of this 84.3% has demonstrated good knowledge on Preparedness of Covid – 19. Especially they have good knowledge about early identification, isolation and care of Covid-

19and also in how to face and protecting the students from acquiring Corona.Knowledge of teachers on prevention response like Hand hygiene, use of disinfectants, social distancing and use of masks almost all the teachers (more than 80%) have Good Knowledge.

In conclusion, the majority of Teachers in the Bule Hora University had good knowledge of COVID-19 despite limited prevention practices during the outbreak. In this study, 311(74%) Teachers had good prevention knowledge towards COVID-19. The majority, 390(92.6%) and 368(87.4%) teachers have good knowledge about the purpose and the correct procedure for hand washing. Similarly they have understanding of maintaining proper social distancing (minimum 1 meter distance) and not favoring the students doing handshaking, hugging and knows the best way to greet people like waving, nodding and bowing. When coming to usage of masks 399(94.8%) teachers have good knowledge about the purpose of masks in preventing Covid – 19. But their knowledge has to be improved especially when there is suffocation. Because 256(60.8%) have poor knowledge about wearing the masks during suffocation as there is a change of virus spread from nose or forehead when they put the mask around neck or forehead at the time of suffocation. Regarding the knowledge on Preparedness, 355 Teachers (84.3%) have good knowledge about the preparedness. They needs additional knowledge about even a healthy person can be the carrier of virus, as 130(30.9%) have poor knowledge about it. Teachers have strong knowledge in protecting the students from Covid-19. 383(91%) have strongly agree about the aware enough to face this pandemic and protecting the students from acquiring it.Knowledge throughtraining, and following WHO, Moshe and Bule Hora University teachers can keep their knowledge up to date and guide the students to prepare and prevent them from Covid-19 .Therefore students can have uninterrupted studies without affecting their education and future.

Acknowledgements

The author would like to forward heartfelt thanks to Bule Hora University and academic staff who participated in the study and seniorresearchers for their candid supports during data collection and manuscript write up.

Funding

No funding was received for this work.

Reference

1. Coronavirus Disease (COVID-19) - events as they happen. (2020). Retrieved April 5, 2021, from Who.int website: <https://www.who.int/emergencies/diseases/novel-coronavirus-2019/events-as-they-happen>
2. Kebede, Y., Yitayih, Y., Birhanu, Z., Mekonen, S., & Ambelu, A. (2020). Knowledge, perceptions and preventive practices towards COVID-19 early in the outbreak among Jimma university medical center visitors, Southwest Ethiopia. *PloS One*, 15(5), e0233744.
3. Peng, Y., Pei, C., Zheng, Y., Wang, J., Zhang, K., Zheng, Z., & Zhu, P. (2020). A cross-sectional survey of knowledge, attitude and practice associated with COVID-19 among undergraduate students in China. *BMC Public Health*, 20(1), 1292.
4. Tadesse, A. W., Melese, N., Eshetie, S., Chane, M., & Ali, A. (2020). Knowledge, attitude, and practice and associated factors towards COVID-19 among college students in Amhara region, Ethiopia; A cross-sectional study. doi:10.21203/rs.3.rs-38099/v1
5. Ethiopia, C. M. P. (n.d.). COVID 19 Handbook for health professionals FMOH 2020 - CMP CoWASH Ethiopia. Retrieved April 5, 2021, from Cmpethiopia.org website: https://www.cmpethiopia.org/media/covid_19_handbook_for_health_professionals_fmoh_2020
6. UNESCO's support: Educational response to COVID-19. (2020, March 11). Retrieved April 5, 2021, from Unesco.org website: <https://en.unesco.org/covid19/educationresponse/support>
7. Archana, S., & Usha Rani, K. (2017). Role of a teacher in English language teaching (ELT). *International Journal of Educational Science and Research (IJESR)*, 7(1), 1-4.
8. Interim guidance for COVID-19 prevention and control in schools. (2021). April 5, from Unicef.org website: <https://www.unicef.org/reports/key-messages-and-actions-coronavirus-disease-covid-19-prevention-and-control-schools>
9. Kebede, Y., Yitayih, Y., Birhanu, Z., Mekonen, S., & Ambelu, A. (2020). Knowledge, perceptions and preventive practices towards COVID-19 among Jimma University Medical Center visitors, Southwest Ethiopia. doi:10.21203/rs.3.rs-25865/v1
10. Ugwuanyi, C. S., & Okeke, C. I. (2020). Determinants of university students' interest in science, technology, engineering and mathematics education in nigeria: a case of a structural equation modeling. *International Journal of Mechanical and Production Engineering Research and Development*, 10 (3): 6209–6218. [http://dx. doi. org/10.24247/ijmperdjun2020590](http://dx.doi.org/10.24247/ijmperdjun2020590).
11. Duraku, Z. H., & Hoxha, L. (2020). *The impact of COVID-19 on education and on the well-being of teachers, parents, and students: Challenges related to remote (online) learning and opportunities for advancing the quality of education*. Retrieved from <http://dx.doi.org/>

12. Saefi, M., Fauzi, A., Kristiana, E., Adi, W. C., Muchson, M., Setiawan, M. E., Ramadhani, M. (2020). Survey data of COVID-19-related knowledge, attitude, and practices among Indonesian undergraduate students. *Data in Brief*, 31(105855), 105855.
13. Hemavathy, V., & Christy, C. M. (2016). A Descriptive Study to Assess the Assertiveness Skills among Post Graduate Nursing Students. *BEST: International Journal of Humanities, Arts, Medicine and Sciences (BEST: IJHAMS)*, 4(1), 29-32.
14. Tadesse, A. W., Abebe, N. M., Tadesse, S. E., Wube, M. C., & Abate, A. A. (2021). Preventive practice and associated factors towards COVID-19 among college students in Amhara region, Ethiopia: A cross-sectional study. *Ethiopian Journal of Health Sciences*, 31(1). doi:10.4314/ejhs.v31i1.
15. Kumari, A., & Verma, J. (2015). Impact of social networking sites on social interaction-a study of college students. *Journal of Humanities and Social Sciences*, 4(2), 55-62.
16. Zhang, M., Zhou, M., Tang, F., Wang, Y., Nie, H., Zhang, L., & You, G. (2020). Knowledge, attitude, and practice regarding COVID-19 among healthcare workers in Henan, China. *The Journal of Hospital Infection*, 105(2), 183–187.
17. Basch, C. H., Hillyer, G. C., Meleo-Erwin, Z. C., Jaime, C., Mohlman, J., & Basch, C. E. (2020). Preventive behaviors conveyed on YouTube to mitigate transmission of COVID-19: Cross-sectional study. *JMIR Public Health and Surveillance*, 6(2), e18807.
18. ISIFE, T. C., & OGAKWU, V. N. (2017). DETERMINANTS OF SELECTED ANTI-SOCIAL BEHAVIOUR AMONG STUDENTS IN SELECTED UNIVERSITIES IN ENUGU METROPOLIS SOUTH EAST NIGERIA. *Research & Development (BEST: JRTSSRD)*, 2(1), 7-14.
19. Cvetković, V. M., Nikolić, N., Radovanović Nenadić, U., Öcal, A., K Noji, E., & Zečević, M. (2020). Preparedness and preventive behaviors for a pandemic disaster caused by COVID-19 in Serbia. *International Journal of Environmental Research and Public Health*, 17(11), 4124.
20. Rai, D. (2017). Assessment of Emotional Intelligence and Emotional Maturity of Undergraduate Students. *International Journal of Humanities and Social Sciences (IJHSS)* 6.4 (2017): 75, 80.
21. Basch, C. H., Hillyer, G. C., Meleo-Erwin, Z. C., Jaime, C., Mohlman, J., & Basch, C. E. (2020). Preventive behaviors conveyed on YouTube to mitigate transmission of COVID-19: Cross-sectional study. *JMIR Public Health and Surveillance*, 6(2), e18807.