Journal of Advanced Medical and Dental Sciences Research

@Society of Scientific Research and Studies ***NLM ID:*** *101716117*

Journal home page: www.jamdsr.com doi: 10.21276/jamdsr Index Copernicus value = 91.86

(e) ISSN Online: 2321-9599; (p) ISSN Print: 2348-6805

Original Research

Knowledge, Attitude and Practices toward the COVID-19 among the school going children in Central Region of M.P Jabalpur, India: Analytical Cross-Sectional Study

[1]Monica Lazarus, [2]Rajeev Banzal, [3]Vivek K Athwani, [4]Pradeep K Jain

[1]Associate Professor, Pediatrics, NSCB Medical College, Jabalpur, Madhya Pradesh, India;
[2]Senior Resident, Pediatrics, NSCB Medical College, Jabalpur, Madhya Pradesh, India;
[3]Assistant Professor, Neonatology, NSCB Medical College, Jabalpur, Madhya Pradesh, India;
[4]Assistant Professor, Pediatric Cardiology, NSCB Medical College, Jabalpur, Madhya Pradesh, India

ABSTRACT:
Background: World is facing Corona virus disease 2019 (COVID-19) disease pandemic. Awareness of COVID-19 in children will facilitate the outbreak management of COVID-19. Collection of knowledge, attitude, and practice (KAP) information regarding outbreaks has long been useful in apprising prevention, control, and mitigation measures during such outbreaks. **Aim/Objective:** Main objective of this study was to evaluate knowledge level, prevailing attitudes and practices among the school going children of Jabalpur, India. **Materials and Methods:** Analytical cross-sectional study was conducted among School going children between May to July 2021. Study was conducted by using the semi-structure questionnaire forms validated in the Department by Pediatrics in Pair group. Brief information containing the title, objectives, voluntary participation, and declaration of confidentiality about their information was attached to the survey form. Students from class 6 to class 12 aged below 18 of both the sexes were included. **Results:** A total of 502 students had participated in the survey and their mean age was 12.43 ±3.2 years. Male female ratio was 279:222 (1.26:1).Overall participants had good knowledge, 82.6% of the participants had a positive attitude, and 81.2% of the participants were following good practices. Nearly 94% of the participants are confident that India can overcome COVID-19, and 94.6% of the participants wore masks when they went out. **Conclusion:** Health education campaigns and awareness events targeting the general population can enhance knowledge and attitudes of children to the pandemic and potentiate better practices in facing the crisis.
Key Words: 2019-nCoV disease, COVID-19, Pandemic, SARS-CoV-2 infection, Children

Received: 22 October, 2021 Accepted: 27 November, 2021

Corresponding author: Pradeep K Jain, Assistant Professor, Pediatric Cardiology, NSCB Medical College, Jabalpur, Madhya Pradesh, India

This article may be cited as: Lazarus M, Banzal R, Athwani VK, Jain PK. Knowledge, Attitude and Practices toward the COVID-19 among the school going children in Central Region of M.P Jabalpur, India: Analytical Cross-Sectional Study**.** J Adv Med Dent Scie Res 2021;9(12):135-140.

INTRODUCTION

Coronavirus disease 2019 (COVID-19) is a global pandemic caused by severe acute respiratory syndrome-coronavirus-2 (SARS-CoV-2). SARS-CoV-2 spreads primarily between people by close contact and through respiratory droplets produced during coughing or sneezing by an infected person. Four pandemics were caused via the emergence of novel influenza viruses in the past century such as H1N1 Spanish flu (1918), H2N2 Asian flu (1957), the H3N2 Hong Kong flu (1968), and the H1N1 swine flu (2009).[1]

COVID-19 is highly infectious disease. The severe stage of the disease is characterized by acute respiratory distress syndrome, septic shock, difficult-to-tackle metabolic acidosis, and bleeding and coagulation dysfunction [2]. The World Health Organization (WHO) has declared COVID-19 as a public health emergency of international concern on January 30, 2020, and called all countries of the world for collaborative efforts to prevent the rapid spread of COVID-19 [3].

The measures that have been adopted by most of the countries to control the COVID-19 transmission include suspension of public transportation, closing of public spaces, close management of communities, isolation, and care for infected people and suspected cases. The experiences learned from the previous

SARS outbreak in 2003 suggest that knowledge and attitudes toward infectious diseases are associated with a level of panic and emotional disturbances among the population that can further complicate attempts to prevent the spread of the disease [4]. There is a necessity to understand the public's awareness of COVID-19 specially among the students at this critical moment to facilitate the outbreak management of COVID-19 in India. This study is chosen to assess people's adherence and awareness to the control measures, which is largely affected by their knowledge, attitudes, and practices (KAP) toward COVID-19. The aim of the study was to evaluate the KAP of the students toward COVID-19 during the rapid acceleration phase of the COVID-19 outbreak.

MATERIALS AND METHODS

Analytical cross-sectional study was conducted among School going children between May to July 2021. Study was conducted to assess their knowledge, attitude and practice during the COVID-19 by using the semi-structure questionnaire forms validated in the Department by Pediatrics in Pair group. Brief information containing the title, objectives, voluntary participation, and declaration of confidentiality about their information was attached to the survey form. Students from class 6 to class 12 aged below 18 of both the sexes were included. People who were not willing to participate were excluded from the study. Study was approved by institutional ethics committee.

The questionnaire began with the ascent of participation, followed by socio-demographic and background information including age, gender and education and current place of residence, followed by questions regarding KAP pertaining to COVID-19. The KAP questionnaire was developed according to the information and guidelines on COVID-19 given by the WHO and the Centers for Disease Control and Prevention (CDC). Questionnaire was designed to analyze the details related to knowledge like causative pathogen, epidemiology, prevention and control measures for COVID 19, attitude towards the seriousness of the pandemic condition and belief in combating the pandemic and preventive measures and its practice in daily life. Questionnaire included single and multiple choice questions.

SURVEY QUESTIONNAIRE

There were four sections in the closed-ended questionnaire. In first section demographic items were included. Second, third and fourth sections were dedicated for knowledge, attitude and practices; respectively. In knowledge section the study participants were given multiple choices. Based on attitude of the children options of agree, disagree and neutral was provided in the questionnaire while in practice section choices of most of the time, sometimes and never was provided based on their routine practices [5].

STATISTICAL ANALYSIS

Data were collected and compiled into MS Excel spread sheets. Continuous variables were summarized as mean and standard deviation and categorical variables were summarized as proportion (%).

OBSERVATIONS AND RESULTS

A total of 502 students had participated in the survey and their mean age was 12.43 ±3.2 years. Male female ratio was 279:222 (1.26:1).Overall participants had good knowledge, 82.6% of the participants had a positive attitude, and 81.2% of the participants were following good practices. Nearly 94% of the participants are confident that India can overcome COVID-19, and 94.6% of the participants wore masks when they went out.

Table 1: Survey Questionnaire for knowledge

Q. No.	Question	Numbers	Percentage (%)
Q.1	COVID 19 is the disease caused by which organism?		
	Bacteria	10	2
	Virus	472	94
	Fungus	2	0.4
	None of the above	18	3.6
Q.2	COVID 19 disease can be spread by which mode?		
	Air droplets (By coughing, sneezing, loud talk)	10	2
	Close contact by infected person	63	12.6
	Both of the above	429	85.4
	None of the above	0	
Q.3	What are the signs and symptoms of corona virus disease?		
	Fever	5	1
	Cough, Cold	17	3.4
	Bodyache	2	0.4
	Loss of taste and smell	12	2.3

	Breathing difficulty	13	2.6
	All of the above	453	90.3
Q.4	What the child or the parents should do if develop fever, cough, cold or other symptoms?		
	Symptomatic treatment with frequent saturation monitoring at home	35	7
	Visit to hospital or fever clinic	94	18.7
	Consultation by video calling	125	24.9
	Any of above depending on situation	248	49.4
Q.5	How we can protect our self from corona virus disease?		
	Social distancing	4	0.8
	Frequent hand wash and use of sanitizer	7	1.4
	Using mask	7	1.4
	All of the above	484	96.4
Q.6	From where you got the maximum information regarding corona virus disease 19?		
	School	78	15.6
	Television	10	2
	Social media	406	80.8
	Other	8	1.6
Q.7	Who are at risk for the Covid 19?		
	Old age	49	9.8
	Adult and middle aged	14	2.8
	Children and adolescent	7	1.4
	All	432	86
Q.8	Can asymptomatic infected person spread the disease?		
	Yes	136	27.1
	No	312	62.1
	Don’t know	54	10.8
Q.9	How the Children can protect themselves from the disease?		
	Social distancing	2	0.4
	Hand hygiene	5	1
	Using mask	12	1.4
	All	483	97.2
Q.11	For minimum how long we need to wash hands with soap for the effective killing of the corona virus?		
	2 minutes	234	46.7
	5 minutes	132	26.3
	10 minutes	54	10.7
	Don’t know	82	16.3
Q.13	What is the duration of quarantine if someone is exposed to the infected person or a corona positive asymptomatic patient?		
	7 days	212	42.2
	14 days	232	46.2
	21 days	50	10
	Don’t know	8	1.6
Q.14	When corona vaccine for children is expected in India?		

	6 month	358	71.3
	1 year	127	25.3
	Not sure	17	3.4
Q.15	Which method parents or child prefer for teaching and learning?		
	Online	405	80.7
	Offline	97	19.3

Table 2: Survey Questionnaire for Attitude

Q. No.	Question	Numbers	Percentage (%)
Q1	Are you in favor of government lockdown decision?		
	Yes	426	84.8
	No	72	14.4
	Neutral	4	0.8
Q2	Do you agree that lockdown saves lives?		
	Yes	432	86
	No	70	14
	Neutral	0	
Q3	Do you agree that COVID 19 is a very serious disease?		
	Yes	446	88.8
	No	50	10
	Don’t know	6	1.2
Q4	Do you agree that it is highly infectious disease?		
	Yes	458	91
	No	40	8.2
	Don’t know	4	0.8
Q5	Will you get vaccinated if vaccines get available?		
	Yes	488	97.2
	No	10	2
	Don’t know	4	0.8
Q6	Are you ready to stay at home?		
	Yes	356	70.9

	No	141	28.1
	Don't know/Neutral	5	1
Q7	Are you ready to keep distance from symptomatic infected family person at home?		
	Yes	248	49.5
	No	200	39.8
	Don't know/ Neutral	54	10.7
Q8	Are you afraid of getting infected with COVID 19?		
	Yes	412	82
	No	80	16
	Don't know/ Neutral	10	2
Q9	Do you belief that India will defeat the COVID 19?		
	Yes	472	94
	No	20	4
	Don't know	10	2

Table 3: Survey Questionnaire for Practice

Q. No.	Question	Numbers	Percentage (%)
Q1	Do you wash your hand frequently?		
	Most of the time	468	93.2
	Sometime	34	6.8
	Never	0	
Q2	Do you use sanitizer after coughing or sneezing?		
	Most of the time	427	85
	Sometime	75	15
	Never	0	
Q3	Do you follow the rule of keeping distance between two persons?		
	Most of the time	410	81.7
	Sometime	92	18.3

	Never	0	
Q4	Do you wear mask when needed?		
	Most of the time	475	94.6
	Sometimes	27	5.4
	Never	0	
Q5	Do you change your cloths after coming from outside visit?		
	Most of the time	197	39.2
	Sometime	260	51.8
	Never	45	9
Q6	Are you following stay home order?		
	Most of the time	469	93.4
	Sometime	33	6.6
	Never	0	

DISCUSSION

In this study, it was found that an overall response rate was satisfactory on the knowledge questionnaire, indicating that most respondents are knowledgeable about COVID-19. This can be due to extensive mass media and awareness programs being implemented throughout the nation. In this study, most of the study participants have good knowledge, which was similar to the study conducted by Zhong et al. among the Chinese population (90%).[6] Olum et al. among Ugandan health-care workers (82.4%),Clements et al. among USA residents (80%)and Rugarabamu et al. on Tanzania residents, 84.4 .[7,8,9]

In this study, 94% of the participants are confident that India can overcome the COVID-19 pandemic, which was similar to study (97.1%) by Zhong et al [6]. Nearly 97.7% of the participants in our study always wore the mask when they were outside, which was almost equal to a study by Zhong et al. among Chinese population (98%). The KAP studies conducted during past epidemics and pandemics showed less KAP among the study population. A KAP study by Chan et al. among Hong Kong population toward the human A/H7N9 influenza pandemic in 2014 revealed that only 25.3% of the participants had sufficient knowledge, which was very less compared to the recent KAP studies.[10]

The study participants were good in overall KAP. They were following all the practices that are mandatory to prevent the COVID-19 infection. The attitude of the students is appreciable as they are very confident in their nation that they can win over COVID-19. The Government of India had taken the decisions wisely that induce a positive attitude among the Indian general population.

CONCLUSION

Many factors influence the KAP related to COVID-19 among the students of India. Health education campaigns and awareness events targeting the general population can enhance the knowledge and attitudes among the children also, helping in pandemic and potentiate better practices in facing the crisis.Children play an important role in epidemiology of infectious diseases and better KAP among them will help in prevention of future outbreaks of infectious diseases. This will also help to determine the right time to open the school for the students. Limitation of this study is that all participants were from one school and almost of same socioeconomic strata. A large study is needed including participants from both private and government school of urban and rural region with different socioeconomic strata for better assessment of KAP among students.

REFERENCES

1. Suvvari TK, Kutikuppala LV, Babu GK, Jadhav M. Understanding the unusual viral outbreak: Coronavirus disease 2019. J Curr Res Sci Med 2020;6:3-10
2. Sharma P, Yadav SK, Piyush AR. Knowledge, attitude and practices regarding COVID-19 among school students of North India. Indian J Forensic Community Med 2021;8(1):27-32.
3. Novel-Corona Virus Events as They Happen. Available from: https:// www.who.int/emergencies/diseases/novel-coronavirus-2019/ events-as-they-happen. [Last accessed on 2021 June 22].

4. Person B, Sy F, Holton K, Govert B, Liang A; National Center for Inectious Diseases/SARS Community Outreach Team. Fear and stigma: the epidemic within the SARS outbreak. *Emerg Infect Dis*. 2004;10(2):358-363
5. Yesuf M, AbduM (2022) Knowledge, attitude, prevention practice, and associated factors toward COVID-19 among preparatory school students in Southwest Ethiopia, 2021. PLoS ONE 17(1): e0262907.
6. Zhong BL, Luo W, Li HM, Zhang QQ, Liu XG, Li WT, et al. Knowledge, attitudes, and practices towards COVID-19 among Chinese residents during the rapid rise period of the COVID-19 outbreak: A quick online cross-sectional survey. Int J Biol Sci 2020;16:1745-52.
7. Olum R, Chekwech G, Wekha G, Nassozi DR, Bongomin F. Coronavirus disease-2019: Knowledge, attitude, and practices of health care workers at Makerere University Teaching Hospitals, Uganda. Front Public Health 2020;8:181.
8. Clements JM. Knowledge and Behaviors Toward COVID-19 Among US Residents During the Early Days of the Pandemic: Cross-Sectional Online Questionnaire. *JMIR Public Health Surveill*. 2020;6(2):e19161. Published 2020 May 8. doi:10.2196/19161
9. Rugarabamu S, Ibrahim M, Byanaku A. Knowledge, attitudes, and practices (KAP) towards COVID-19: A quick online cross-sectional survey among Tanzanian residents. medRxiv. 2020 Jan 1;2020.04.26.20080820.
10. Chan EY, Cheng CK, Tam G, Huang Z, Lee P. Knowledge, attitudes, and practices of Hong Kong population towards human A/H7N9 influenza pandemic preparedness, China, 2014. BMC Public Health 2015;15:943.