

Knowledge and Attitude of Parents toward Children on COVID 19 Disease- A Qualitative Studies

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ABSTRACT:

Background-Coronavirus disease 2019 or COVID-19 had a rapid global spread. COVID-19 is highly infectious and capable to infect the individuals of all age. The aim of the present study is to describe the knowledge and attitude of parents regarding the COVID-19 infection in children, comprising of the mode of transmission, protection measures and clinical signs of the disease.

Materials & Method- A cross-section study among parents was conducted. The size of the sample was 650. The information regarding the clinical signs of the disease, modes of transmission, protection measures against COVID-19 were collected.

Results- The results of the study indicate that the parents had good understanding of the mode of transmission, protection measures and clinical signs of the disease. Based on the parents' responses, it was observed that the resources they used the most about COVID-19 was social media (76%), followed by news channels. Most of the parents correctly mentioned that fever was the most common clinical sign, followed by cough. Mostly, parents have an appropriate attitude towards susceptibility to infection in children within crowds.

Conclusions- It was concluded that reported findings are important in order to understand the clinical characteristics as well as the transmission potential of COVID-19 infection in children from the parents' perspective. In this study, the knowledge of most of the parents about COVID-19 in children was considered good. Thereby this knowledge helps to create educational programs in order to increase the awareness in areas that had less awareness.

KEYWORDS: COVID-19, children, parents, protection measure, transmission

INTRODUCTION:

Coronavirus disease- 19, also known as COVID-19 is a new pandemic which has spread from Wuhan, China to the numerous countries.¹ So far, most of the severely affected COVID-19 patients have suffered from pneumonia.² COVID-19 is highly contagious. The current reports from Chinese Centres for Diseases Control and Prevention indicate that the COVID-19 rarely attacks children.^{3, 4} It is still unclear that why children have a higher resistance to some quite infectious diseases. Healthy respiratory system as compared to adults, a very active innate immune system in children and lesser hidden abnormalities in children may play a role.^{5,6} The other possible explanations for the lower cases of COVID-19 infections in children may be due to minimum participation of children in the various outdoor activities and they also have little international travel, which further lowers their possibility of getting infected.^{6,7} It is necessary to explain the primary method that can help in managing COVID-19 in children.⁸ Presently, the parents are role models and promoter in their children's health. Thereby good parenting skills are very much essential when the children are restrained within their home. Besides observing the behaviour and performance of the child, parents must also regard their children's needs and protect them against any danger. Thereby, it is necessary to survey the knowledge, attitude and also the beliefs of parents about COVID-19. Since very less research has been performed yet in this area, thereby in the present study, the researchers conducted a cross-sectional survey in order to describe the knowledge and attitude of parents regarding COVID-19 in children, including the protection measures, modes of transmission and clinical signs of the disease.

MATERIALS & METHODS:

A cross-sectional study was designed in which 650 parents participated in an online survey. All the parents were qualified for this research. This survey consisted of 25 statements categorised as a) measures to protect children against COVID-19 by the parents- 9 statements, b) modes of transmission of COVID-19- 4 statements, c) clinical symptoms -12 statements. Each answer was given one point for the right answer and zero points for the wrong answer. This questionnaire was found reliable and valid. Online surveys were used to collect the data for this research. The objective of this online survey was to collect the responses about the knowledge and the attitude of parents towards the COVID-19 in children. The parents participating in the study received an email with an agreement form and an online survey for submission, which anonymously and electronically collected data. Around 800 surveys were sent to the parents by e-mail, generating a response rate of approximately 81%. Therefore, out of a total of parents participated in this research of whom 137 (21.0%) were male and 514 (79.0%) were female. The mean age of the participants was 34 years. For their information about COVID 19, mostly parents depended on news channels (n = 530) and social media (n = 480) (Table 1). The statistical package SPSS version 25 was used for the analysis of all statistical data.

RESULTS:

The information was gathered about the knowledge and attitude of parents regarding the home measures, frequent hand washing for children and themselves (n = 532), routinely cleaning and disinfecting surfaces that had been in connection with known or suspected patients (n = 554) and placing known or suspected patients in well-ventilated individual rooms (n = 534) (Table-2). Handshaking (n = 459), gathering in crowded places and contacting surfaces like doorknobs and tables (n = 568) were reported as modes of transmission. The information was collected regarding the clinical symptoms of COVID-19 in children and mode of transmission. Most of the parents listed fever as first most common clinical symptom (n = 530) and secondly cough (n = 540) and shortness of breath (n = 572).

Parents also reported skin rash (n = 59) and heavy sneezing and coughing (n = 558) as symptoms of COVID-19 (Table-3). Furthermore, 61% of parents believe that the children may be infected, but remain asymptomatic (n=490).

TABLE 1:SOURCE OF INFORMATION REGARDING COVID-19 AS PER PARENTS' RESPONSES

Source of information	Number (n)
Social media	480
Google and search engines	279
Family, friends, neighbours	350
News channels	530
Ministry of Health website	69
Scientific articles and research	156
Other, such as newspapers	200

Table 2: Prevention measure as per the parents' responses

Prevention measures	Number (n)
Wash hand frequently	532
Eat boiled and cooked food	375
Apply mask to known or suspected patient	550
Place known or suspected patients in well-ventilated individual rooms	534
All health workers must wear protective clothing	560
All health workers must wear protective clothing	489
Routinely cleaning and disinfecting surfaces in connection with known or suspected patients	554

Table 3: Clinical signs of COVID-19 in children as per the parents' responses

Clinical Signs	Number (n)
Fever	530
Cough	540
Shortness of Breath	572
Skin Rash	59
Sneezing and Coughing	558
Sore Throat	324
Joint/Muscle Pain	200
Diarrhoea	150
Vomiting	210
Asymptomatic	490

DISCUSSION:

Results of the present study show that parents in this study depend mainly on the news channels and social media for their information on COVID-19. The results also show that according to the parents' response, the main reported symptom of a COVID-19 infection in children is fever and also shortness of breath. The results were not completely consistent with the previous studies regarding the main clinical manifestation that include fever and shortness of breath, which found that children and adult patients have the same clinical manifestation, such as cough and fever.^{9, 10} However, these studies also found that some children just have mild overall symptoms such as diarrhoea and runny nose. Thirteen paediatric patients that

had tested positive of COVID-19 were in close contact with a family member who also tested positive. The patients included three neonates.¹⁰ The children underwent a COVID-19 RNA test. The present study shows that approximately 60% of parents believe that children may be infected but remain asymptomatic. This is consistent with the previous studies that mentioned that an infected person does not need to show any symptoms in order to transmit the virus to another person. The study shows that almost 89% of the parents participated in the study agree that the major route of COVID-19 transmission is by respiratory droplet. This finding is also consistent with the finding of other studies. Mostly, people are more susceptible to the virus within the crowds. Many parents were in favour of prevention and mentioned that there are several ways to prevent COVID-19. These methods include frequent washing the children's hands, giving boiled and cooked food to children, apply masks to known or suspected patients, place known or suspected patients in well-ventilated individual rooms far away from children, wearing protective clothing specially when contacted the sick people, also avoid transporting the patients unless necessary. More than 95% mentioned not to accompany any of their children to a crowded place. Many previous literatures suggested that asymptomatic individuals can also transmit the virus, thereby measures should emphasise on the social distancing like avoiding mass gatherings and also school closures.¹¹⁻¹⁴ To determine whether children are important sources of transmission, it is essential to evaluate whether the risk posed by the school closures to the well-being and education of the children is justified. Identifying and isolating the individuals at early stages is critical in order to control COVID-19. While being in isolation, the infected children should not have any visitors and the treatment should depend on the basis of clinical experience of adult patients, since there are few cases in children.¹⁵

CONCLUSION:

To summarize, it is believed that the findings reported here are important in order to understand the clinical characteristics and also the transmission potential of the COVID-19 infection in children, from the perspective of parents. The knowledge of parents about COVID-19 in children was considered good. The parents have a good background knowledge on the protection measures against the disease, modes of transmission of the virus and clinical signs of the disease.

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