

The Impact of the Covid-19 Pandemic on Child Youth Quality Healthcare Delivery: A Cross Sectional Study

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ABSTRACT

Objective: To analyze the impact of the COVID-19 pandemic on children's quality healthcare delivery.

Methodology: It is transverse, exploratory, descriptive and quantitative/qualitative study carried through one questionnaire developed by Google Forms and available on social media with questions about the pandemic impact on the quality healthcare delivery of children and adolescents.

Results: Out of 200 caregivers who participated, 94.5% were female and 92% mothers, most were married (87.5%) and older than 40 years (61.5%). As for children and adolescents, most were between 8 and 12 years old (38.5%), 50% were female, 78% did not have comorbidities that favored the severity of COVID-19. About the context of the pandemic, 75.5 % reported the child/adolescent about the lived situation and the main feelings were reported: worry, fear, sadness, anxiety, irritability and missed routine work. With behavioral disorders of children and adolescents since the beginning of the pandemic, 73% of the children stated differences was the increase in time at home (77%). Additionally, other behavioral changes identified in the questionnaire were very relevant as difficulty sleeping (43%) decline in school performance (42.5 %), and agitation/irritation (42%). Concerning the practice of physical activity, 63% of children practiced before the pandemic, but only 27.7 % continues, besides that sunbath also was taken, because only 43.2% are taking regularly due to COVID 19 SOPs. The result showed that the quality of healthcare delivery by the healthcare providers and the care givers was suffered badly during the COVID-19 pandemic.

Conclusion: we found out that the pandemic has affected directly the behavior of children and adolescents, being necessary attention geared to families with respect to physical and mental health, as well as the expansion of the debate on the theme. It has been concluded that the quality healthcare delivery to the children and the youth have been effected badly on the physical and mental health of the children during COVID-19 pandemic.

Keywords: coronavirus, COVID-19, Pandemic, Family health, Pediatric Health.

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Introduction

In December 2019, a new type of coronavirus, called SARS-CoV 2 was identified in the city of Wuhan, acronym meaning Severe Acute Respiratory Syndrome Coronavirus 2, which causes the disease COVID-19. Since then, it has been attracting global attention due to

its rapid spread, causing a pandemic in March 2020, according to the World Health Organization (WHO) (LU; STRATTON; TANG, 2020).

According to the updated report of the Johns Hopkins coronavirus Resource Center (2020), 105 866 930 people have been infected with the new coronavirus in the world, among these 2,311,227 evolved to death until 7 of

January of 2021. In the US, were 9,447,165 cases and 230,034 deaths up to that date.

The COVID-19 can manifest in different levels of severity and may have symptoms similar to those of other early respiratory diseases. The patients need ventilation which may continue till the patient revive to normal oxygen saturation level. Its main symptoms are: fever, dry cough, fatigue, myalgia, anosmia, hyposmia and ageusia, which can progress to dyspnea or even Severe Acute Respiratory Syndrome (SRAG).⁵

In view of the above, coping strategies were taken to contain the advancement of pandemic, such as: social detachment, based on prohibiting events that cause agglomerations and establishing a minimum distance of one and a half meters between people. In addition, in some cases, social isolation has also been adopted, in which people can only leave home for essential services. However, such initiatives related to the rapid progression of the disease and excess information available bring consequences of serious psychological problems in many groups (Pereira et al, 2020; SILVA, 2020; XIANG et al, 2020).¹⁶

One group greatly affected by such consequences were children and youth. They have to leave the schools to carry out their usual activities, being exposed more intensely to sedentary lifestyle, stress, and anxiety that is a result of fear of contamination by viruses and/or economic problems in the family. Also, if there is pre-existing psychiatric problems, these factors aggravate the mental state of the child.⁹

Thus, there is a need to focus on the consequences of the pandemic in this specific group, since they are more vulnerable and show signs of psychological impairment, often unspecific. Thus, studies like this can facilitate the identification of these signs and guide measures to mitigate them.

Therefore, it is considered one issue of great relevance, seen that the COVID-19 is a disease discovered recently and the impacts of it will reflect much in society both now and in the future. In this context, the study's main objective is to analyze the impact of the COVID-19 pandemic on children's and youth's quality healthcare delivery by the healthcare providers and care givers.

Methodology

The present research is a cross-sectional, exploratory and descriptive, investigative study. According to Gil (2008) this research method allows the pursuit of development, clarification and / or modification of concepts and ideas, using questioning or of hypotheses for studies later to be more clear. In addition, the people or the phenomena have their criteria and operated through the use of standard techniques of collecting data with the use of questionnaires, interviews and / or systematic observation.

The study was developed by the Google Forms and for the completion of the questionnaire was available one link by means of networks social (Instagram, Facebook and WhatsApp), before we were unable to identify the range of people. The selection of the participants probabilistic for convenience, with the following criteria of inclusion: both the genders in the context of father, mother or parent responsible for the children and adolescents aged 18 years and accepted part of the research by the signing electronics of the Term of Consent Free and Informed (IC).

The hypothetical sample size was 150 individuals achieve to compose the study, and this number exceeded and the sample size of 200 participants was obtained.

Why involve' human beings, there were risks in research, as the one possible constrain to answer any question that was minimized by the preservation of the participant identification and their responses.

For the collection of data, we applied one questionnaire constructed by the researchers, which contained questions about data demographic of the participants, as well as questioning the parents and responsible addressing: the behavior of the child or teenager during the pandemic and if there were changes, the habit of conversation between children and parents, the practice of physical activity and sunbath. This questionnaire was available to fill, after the approval of the Committee of Ethics in Research (CEP) during September 2020.

The present project was appreciated by the IRB Board and submitted to the Ethics and Research Committee of UOL, Lahore and having been approved. Emphasizing that for the realization of the study were obeyed all the criteria established. The participation of individuals was voluntary, clarified the doubts and the participants signed a consent form and clarified referring using this, clarification verbal and written about the goals of the research, ensuring the confidentiality of the data

collected, and have been informed the respect of their freedom to withdraw their consent at any phase of the study.

The data analysis was done through a descriptive approach of the variables obtained, and the results presented by the tables and graphs. At the end, the analysis of the collected data was processed using the Microsoft Excel ® program (MARKONI; LAKATOS, 2010).

Results

The first part of the questionnaire contained questions about sociodemographic data of both the father / guardian and the child or adolescent, such as age and sex of both, degree of kinship between them, state where they reside, marital status of the person in charge, religion and internet access.

The impact of quality healthcare delivery on the children health was being evaluated using different socio-demographic factors which were changed during the COVID-19 pandemic.

In relation to children and adolescents, most were between 8 and 12 years (38.5%), but the other children were being between 3 to 7 years (29%), from 13 to 18 (32.5%). And gender showed equity, with 50% being female and 50% male.

As those responsible for the healthcare delivery, most were female (94.5%) and 92% were mothers, but parents, grandparents, uncles and others also participated. Of them, 61.5 % were aged greater than 40 years. With regard to residence, they lived in the cities. The answers were as follows: Lahore (65%), Faisalabad (20%), Sialkot (5.5 %), Shiekhupura (5%) and other locations (4.5%). In addition, the majority were married (87.5 %), Muslims (75.5%) and all had easy access to the internet.

The questionnaire contained questions surcharges and the repercussions of the pandemic for the children and teenagers, defining the possible areas that could be affected. At first it was asked if the child or adolescent had comorbidities for the COVID-19 to characterize the possibility of complication to acquire the disease, that is directly related to the impact of the pandemic, both about the care that intensity, as for the psychological that can be more affected. In the case of participants of the survey, 78% of children and adolescents did not have

comorbidities that might favor complications to the COVID-19, as to what had, the main represented were: asthma (10%), obesity (3.5 %), diabetes (2%) and others less common, such as: nephrotic syndrome, sickle home anemia and pulmonary stenosis (Figure 1).

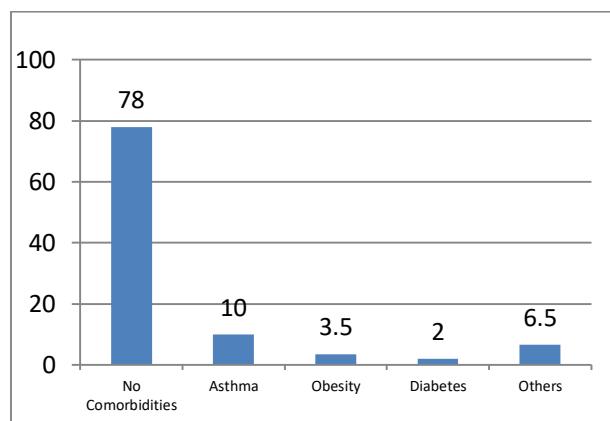


Figure 1. Comorbidities presented by children and adolescents.

Source: Data from applied research in 2020.

Other changes presented in the questionnaire were quite relevant as: drop in school attendance, accounting for 42.5 %, difficulty in sleeping (43%) and agitation/irritability (42%), and those items defined as effects indirect of Covid-19 on Quality Healthcare Delivery the child and the adolescent (2020). They have cited: sadness (19%), pain in the head (13.5%), among others (Table I).

Table I: Changes in behavior with the pandemic

Behavior	Percentage
Increase the time in the home	77%
Difficulty in sleeping / sleeping more later	43%
Inattention / drop in school performance	42.5%
Agitation / irritation	42%
Sadness	19%
Headache	13.5%
Excessive crying	13%
Discomfort	8%
Other (anxiety, increase the appetite, increase the time on the computer, TV or video game)	6.5%
None	6.5%

About the feelings of the child or adolescent about the pandemic, 64% said to be saddened by the distance learning from school and in other activities that practiced, 59.5% claim to miss playing with other children, 51% said sadness for distancing from colleagues and family members. In addition, fear of the disease (45.5 %) and doubts about the pandemic (26.5%) were mentioned.

Other feelings, such as feelings of falling in school performance and lack of responsibility to fulfill, were mentioned less frequently (Figure 2).

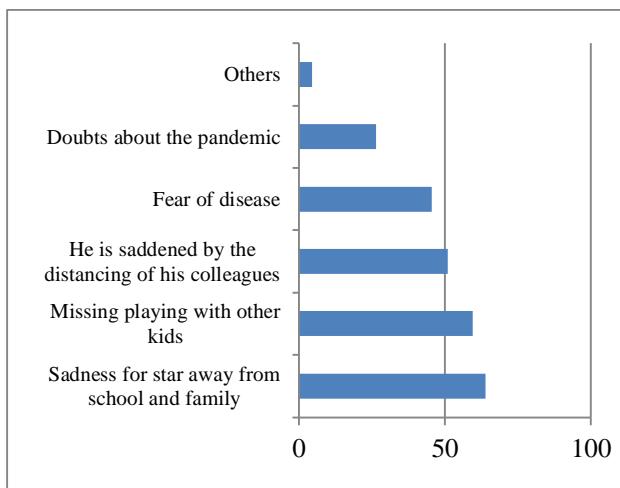


Figure 2. Feelings reported by children and adolescents about the pandemic.

With regard to the practice of physical activity, 63% of the guardians reported that their children practiced exercises before the pandemic, however, of these, only 27.7% continued to practice some activity during this period.

The research showed that the COVID-19 pandemic badly affected the quality healthcare delivery to the children and the teen agers due to social distancing and isolation which they have never practiced before. This has led to sadness, irritability, confusion and physical inability to carry out physical exercises. The quality healthcare delivery by the health professionals should emphasize through good communication, motivation and attention by the healthcare givers.

Discussion

The evolution of COVID-19 for serious and critical cases is rare in children and usually only occur if the comorbidities or factors of risk prior, being cited some are framed in this context, as conditions chronic and complex, mainly neurological, genetic, metabolic, cardiac and congenital diseases.

In this context, Neumann, et al study showed that children with special needs, including comorbidities, tend to be more prone to anxiety frames, stress, and depression in the period pandemic, requiring greater attention, however, this occurs in the minority of the population Infantry and youth.¹⁴

One aspect to be highlighted is that, in most cases, children, due to their age are not able to express what they feel to adults.⁷ However, 75.5 % of the respondents reported that they had one dialogue honest among the binomial child and responsible for the feelings in the pandemic.

Among the feelings demonstrated during this dialogue, the most reported were: worry, fear, insecurity, sadness, anxiety, irritability, impatience, laziness, lack of courage and miss the friends of the school and family, especially grandparents, while few reported tranquilities, adaptation and understanding by the child or adolescent. These feelings most reported are common among the children, especially in critical times such as the pandemic because they appear more vulnerable emotionally and tend to have more mental health problems as those already mentioned. A factor to be highlighted in this situation is loneliness, which is an unintended consequence of prolonged containment measures, which increases the affective response of depression.¹⁵ According Loades et al, children who have experienced isolation or quarantine in pandemic were five times more likely to need future services of health mental and higher levels.¹⁰

Moreover, many times, main factors are related to the onset of feelings reported, may be cited the fear of infection by COVID-19 family members and other situations experienced by the family due to the pandemic, such as financial hardship and social isolation. The study of Papalia and Feldman corroborates with our findings reported that the adaptation to the new realities and financial crisis of the parents can promote psychological distress and increase the fear and concern in children.¹⁶

Regarding the behavioral changes of the child or adolescent since the beginning of the pandemic, 73% of those respondents stated that they observed differences. Our study agreed with the data in the literature, as according to Mangueira et al, the pandemic is associated with several implications in the lives of children and adolescents, with changes in behavior, diet and sleep patterns being observed, thus, the family must take on a role of protection and care in these situations.¹²

Concerning the type of behavioral change presented by children and adolescents, what happened was the highest prevalence the increase in time on home or mobile phone (77%). This finding is also consistent with the literature since according to Wang et al, the children are being prevented from playing outdoors and thus tend to use means technological logic with greater frequency, and

many times it relates up to higher levels of stress and anxiety. Sequoia and Freire et al, the excess use of electronic appliances by the people of the real world decrease the contact between the parents.^{23,21}

Social distance and the closure of schools impact the relationship of children and adolescents with their colleagues, teachers, extended family, and community in general, causing physical isolation, which can lead to loneliness. Furthermore, with the school's remoteness, around 90% of students were distanced from education, that generates not only consequences on learning, but also exposure to one frame of greater vulnerability, because of lack of interaction with the colleagues and of responsibilities, they need, is directly related to loss in health, such as physical inactivity, food habits, irregular sleep and increase the use of mobile and television screens.¹⁴

To alleviate such unfavorable feelings, the guardians of children and adolescents must provide information and guidance on the pathology as well as protective measures, however, the dialogue on this topic must respect the limit of the child or adolescent, taking into account the age and age of the child. Understanding and be careful and sensitive not to provide information on overuse and incite feelings of fear and anxiety.⁴

The results of this research corroborate with those of the study made by Sa et al. that before the social distancing, about 67.8 % of children engaged in physical activity at least twice a week, however, with the pandemic most respondents indicated that there was a reduction in the level of physical exercises practiced by their children, as a result of mobile and television screening time, the sleep and family activities increased.¹⁸

In addition to this, children's and adolescents may be damaged both for the physical and mental health as a result of inactivity during this period of the pandemic COVID 19. According to Junior et al. (2020), the practice of regular physical exercise activity is essential when it respects weight maintenance in students. In addition it resulted in benefits to cognition for the parents and the children. In this sense, the insertion of more active moments at home is necessary to improve the quality of life of children and adolescents.

The study also brought as a result that only 43.2 % of children and teenagers are sunbathing regularly. However, according to the study by Slominski et al. (2020), the low level of vitamin D in the body is one

important factor associated with epidemics viral, that was found one strong association between the deficiency of vitamin D and COVID 19 infection. Therefore, vitamin D is necessary to have exposure to direct sunlight, without the exposure appropriate to the sun, the children and teenagers are more susceptible to infection.²²

Conclusion

It has been concluded from the present study that the COVID-19 pandemic brought changes in the way of life of the people, resulting also in children and adolescents, repercussions both direct, arising from own infection viruses related to the consequences of social isolation. These factors directly impact the quality of life of population, which can lead to other health problems.

The difficulties experienced by children and adolescents in this period are many, being the own disease one concern for these individuals, mainly, to the holders of comorbidities. However, as the trend for serious cases is rare in young people, it confer risk for physical and psychological health, such as anxiety, stress and sedentary lifestyle. In this context, the major changes of behavior observed were: an increase in the use of mobile and television screening, irritability, loss of performance in school and prejudice in the routine of sleep. In addition to the reporting of feelings like sadness and anguish, factors caused due to the pandemic, in which the children and adolescents had one abrupt change in their routine with the closing of the school and the absence of physical contact with the friends and the family.

Further Recommendations

It can be recommended that some strategies are crucial to mitigate the pandemic's impact on children and adolescents, especially: establishment of effective communication between parents and children, sharing the feelings caused by the pandemic to take attitudes of confrontation, monitoring the time of use of mobile and television screening, daily routine organization, avoiding impatience and anxiety, development of the leisure activities and exercise training situation, to assist in combating stress.

In the end, it is considered that this study has high relevance both to the health professionals and for parents and guardians of children, since the current situation is atypical and analyze every aspect that surrounds it and its repercussions have great importance for that the damage should be minimized. Therefore, it is necessary to pay

attention not only to the physical and mental health conditions of the child but also to those responsible for them. Therefore, to mitigate the consequences of this period, emergency measures are needed to reduce the aggravations of this situation.

It is further recommended that the quality of healthcare delivery for the physical and mental activities in the children and adolescents must be monitor by the healthcare professionals as well as by the parents in order to maintain their good health during COVID-19 pandemic.

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