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Shelina Bhamani

Vardah Bharuchi

Nasreen Ali

Areeba Makhdoom

Ramla Hashmi

See next page for additional authors

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Authors

Shelina Bhamani, Vardah Bharuchi, Nasreen Ali, Areeba Makhdoom, Ramla Hashmi, Sanober Nadeem, Hijaan Mitha, Alyza Muhammad, Mobsina Hussain, Fatima Shafiq, Ali Faisal Saleem, and Lumaan Sheikh

Research Article

How Children Perceive COVID-19? Kids Drawings and Perceptions of Parents

Shelina Bhamani^{1*}, Vardah Bharuchi¹, Nasreen Ali¹, Dawood Ahmed², Areeba Makhdoom¹, Falak Zehra Mohsin³, Ramla Hashmi¹, Sanober Nadeem⁴, Hijaan Mitha¹, Alyza Muhammad¹, Mohsina Hussain⁵, Fatima Shafiq¹, Ali Faisal Saleem¹, Lumaan Sheikh¹

¹Aga Khan University, Pakistan

²Independent Education Consultant, Sindh, Pakistan

³Institute of Business Administration, Sindh, Pakistan

⁴Aga Khan Health Services, Sindh, Pakistan

⁵Aga Khan Hospital, Sindh, Pakistan

***Corresponding Author:** Shelina Bhamani, Aga Khan University, Pakistan

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Abstract

COVID-19 affected many lives, number of children become stressful and socially isolated. School closure also has great impact on children's social-emotional development and overall wellbeing. The aim of current study was to identify children's reactions to COVID-19 and its impact on academic and social life. Qualitative

participatory research design was used to assess children perception about COVID-19. Data were collected from parent's interview and Children drawing. Three major themes include: Fear of the drastic changes, increased sense of responsibility, and gratitude for being at home with family was reported by the parents however children drawings revealed that most

of the children felt unhappy and sad because of lock down they were missing things they were missing enjoyed earlier such as school, friends and outdoor activities and games. This is astonishing that most of the children drawn the COVID-19 virus and represented as giant and ugly. Few children also draw mask and other protective measures. Public awareness program on COVID-19 protection and mental health promotion will be window of opportunity for children psychosocial wellbeing.

Keywords: Children; COVID-19; Pakistan; Parenting; Social- Emotional Development

1. Introduction

Pandemic COVID-19 is the biggest and disastrous communicable outbreak affected globally and impacting each individual of the community. Children although luckily were least medically affected by COVID-19, however challenged with abstinence in all social interactions. Social interaction and engagement to learn and grow is the crux of childhood. School closures could have a great impact on children's mental wellbeing and put them at greater risk, especially the children who belong to low-income families and low-resources access in Pakistan (UNICEF, 2020). Pakistan has 65% number of the rural population. The challenges facing children in rural settings is largely unknown, rather unexplored, undocumented and lacking a focused governmental policy and approach to alleviating the problems. Similarly, the pandemic has affected children living in poverty in urban areas commonly categorized as street children. More than 1.5 million children [1] had been living off on streets across Pakistan in 2010, which is a rough estimate. This number has definitively grown exponentially and thus misleading today due to lack of credible sources such as census to verify the

figure [2-3]. These unattended and unaware street children could easily contract the virus and will probably not have access to any form of healthcare and education [4]. Furthermore, the breakdown of social infrastructure due to the pandemic could have a detrimental impact on street children [5].

Furthermore, UNICEF press release voices fear and concerns over millions of children who may resort to earning a livelihood or just the daily bread with child labour [6, 7]. On the other hand, children who did have access to schooling before the pandemic are now out of schools, causing distress and challenges of learning and parenting at homes [1, 3]. Despite many challenges faced by the teaching and learning communities, online schooling platforms and opportunities by the government, public and private platforms sprouted across Pakistan [8], however, the access, usage, impact and success of tele-schooling is yet to be determined. Also, the technical aspects of teacher competency of hybrid models, the type of bandwidth and learning space availability and alignment of online classes with the developmental milestones of children largely requires intensive research. The COVID-19 pandemic has also caused disruption in routine immunization of infants and children, which could force the country into polio, measles and other life-threatening diseases [9], despite effective vaccines availability [10]. Predictions foretell child morbidity and mortality will surge amidst the COVID-19 pandemic if concerted efforts are not made for urgent action [11]. The pandemic could further create poorer living standards and worsen the economic statuses of up to 86 million children by the end of 2020 [12-15].

During the pandemic, it is also critical to ensure children and families increase hand washing and

personal hygiene measures to avoid contracting the virus and to maintain good health. The people will require constant support, education and awareness to maintain hygiene, practice social distancing and protect their children [3]. The COVID-19 pandemic has become larger than a public health concern. It has laid bare the systemic failures of the modern world on many frontiers. Children and youth, who are the future of the world, are at high risk of a poor start in life, which could have poor outcomes in adulthood. It is critical to study and understand the problems, make sustainable action plans, rally public and private support to come together and protect our future.

During December 2019, a spread of pneumonia with an unknown reason was outburst in Wuhan China and very soon it was found to be caused by a novel corona virus, Covid-19 [16]. Covid-19 has impacted almost entire world within a short span of time. It is evident that every genre of life has become its victim. About thousands of lives of learners in 200 countries have been altered [17, 18]. Researchers round the world are doing researches to explore the impact of COVID-19 on human beings especially on children. A rapid review by Brooks, Webster, Smith [19] found indication that during sudden closure of schools the activities of the children decreased but did not cease at all as they indulged in some indoor activities. The actions of numerous countries towards sudden closure of schools by March 2020 to get saved from the spread of COVID-19 were to reduce the transmission. All these actions were done based on the assumptions taken in influenza outbreaks; so as it may be true for COVID-19. Whereas there are many explanations that explain that the schools closure may be less affective during COVID-19 than in the times of influenza outbreaks [20].

According to Tian, Liu, Li et al [21]. and Lai, Ruktanonchai, Zhou et al. [22] in late January 2020 the initiation of school closures took place across mainland China as one of the actions to control the COVID-19 pandemic. But still there is no data available on the effectiveness of school closures. Whereas the school closure of schools was a part of maintaining social distancing. It was also concluded by both of these studies that this social distancing was effective in the reduction of COVID-19 pandemic in the mainland China but the part of school closure was not assessed. Tian, Liu, Li et al [21] and Lai, Ruktanonchai, Zhou et al. [22] found that school closures contributed in the control of COVID-19 in China as a part of greater level quarantine actions. But they do not provide any support in the form of data that is why it is very difficult to estimate the impact of school closures in this regards [23]. There is not a second example of worldwide school closure in the history as of COVID-19. The losses for learning of COVID victims are hard to measure. Schools in many countries have started online distance learning to their learners. Whereas, the effects of physical distancing and restrictions to move from one place to another on children's mental health show another concern [18].

In Pakistan where millions of children remain out of school every year already, the pandemic of COVID-19 would put a long term impact on our educational system [21]. The closure of schools should not be considered a light step. It may have impact on the learning process of the children as well as on their health. This impacts on the large workforce which have to stay at home by becoming affected by income and other social restrictions. At the same time other children at home may learn risky behaviours if left unattended at home [24]. We can say that school closures not only affect

children but also to people attached with schools. This is important to find out the impact of COVID-19 on children and families and how children are reacting and coping with this pandemic. This study has plan to acknowledge the parent's perception related to COVID-19 and its impact on children's learning and social life.

1.1 Research questions

How young children perceive COVID-19 during lockdown?

What are children's reactions to COVID-19 and its impact on academic and social life?

2. Methodology

2.1 Research design

The study was a qualitative participatory research in which the perspectives of COVID 19 of parents and children were analyzed to understand their experience of the pandemic and the impact on academic life.

2.2 Sampling

Convenient sampling was used to administer this study. The reason behind that was access to the population due to lockdown. Participants were children aged four to ten years and their parents. The age range of parents was between twenty-five to forty years. Ten children from urban areas of Pakistan were allocated for the study through convenient sampling. Since, this study aimed at exploring how children perceive and present their perception regarding the COVID-19 during the lockdown, it aimed at understanding the feelings in context and not targeting it to be generalized for any scaling up interventions.

2.3 Data collection

A socio-demographic questionnaire was developed in which questions related to the age of parents and

children, household income, parenting status, number of people at home, number of children at home, and profession of both parents were asked. An interview guide was developed that constituted of semi-structured questions. Questions related to children's academic activities, support from school and child's perception of COVID 19 were asked. Participation was voluntary and informed consent was taken from the participants. Interviews were recorded and transcribed. Data collected from the children involved drawings. Children were asked to draw their feelings about COVID 19. Children had the permission to draw what they desired. They made drawings independently and parents were given an orientation by the researchers. A4 sized papers, colored pens and markers were provided. Children produced drawings according to their time and comfort. Completion of each drawing varied from ten minutes to thirty-five minutes. Drawings were shared via WhatsApp and email with the researchers. Children were informed about the purpose of research study by their parents. The study lasted for three months and data from children and parents was collected in twenty days.

2.4 Data analysis

Braun and Clark [25] model of thematic analysis was used for the findings of interviews from the parents. An inductive approach was used for the analysis. Sentence by sentence analysis was done. In the first step early impressions were jotted down by reading and re-reading the transcripts. The method of line-by-line coding was done to generate the initial codes. The next stage involved the grouping of codes that fit under a singular theme. Selected data was matched with the themes identified to ensure that the data supported it. Themes were then refined by relating them to one another and subthemes were generated [25]. The analysis was done manually by the researchers. The drawings of the

children were analyzed manually. Interpretation of the drawings were made based on the colors used, pressure of marker/pen on paper, size of figures and figures drawn such as a bat, circle, school, house, etc..

2.5 Ethical considerations

Prior to the beginning of the study, approval was sought from the Ethical Review Committee of The Aga Khan University, Karachi, Pakistan. Informed consent was sought from the parents as well as the from the parents of the children who participated in the study. Parents

were debriefed about the purpose of the study and both parents and children had the right to withdraw. Interviews and drawings were de-identified and were stored in password locked database.

3. Results

From the data analysis of interviews a range of impacts of COVID-19 on children were emerged. These impacts can be presented in three major themes include: Fear of the drastic changes, increased sense of responsibility, and gratitude for being at home with family (Table 1).

Main Themes	Description
Fear of the drastic changes	Fear of change and uncertainty, scared and start questioning, initiation of mental health issues
Increased sense of responsibility	Children become more curious, responsible and maintain the social distancing
Gratitude for being at home with family	Appreciate to be at home with other family members and family time

Table 1: Themes emerged from parent’s interview.

3.1 Theme 1: Fear of the drastic changes

A lot of parents identified that their children seem scared of all that is going on in these unprecedented times. They are having a hard time trying to process how everything just so abruptly changed. Closing of schools, social spaces and limited to no interaction with friends and family have raised a lot of questions in their minds. This fear has also led to a lot of confusion and oftentimes they turn to their parents to help them understand the current situation. It is also manifesting in the form of sadness and parents have to reassure their kids that this isn’t a permanent situation. As one parent commented: “My children have become fearful, unhappy, surprised and yet careful” These wide range of emotions that children don’t completely understand are showing up as negative sentiments. Children are

extremely sensitive to their environments. They imbibe all that is happening around them and whether they express their feelings adequately or not, it is obvious that they have had a lot to adjust to and it hasn’t been easy. It should be kept in mind that unexpressed fears, inability to articulate one’s thoughts and not having a healthy environment at home can all lead to mental health issues in children, and it is more imperative than ever that elders are on the lookout for any cues that children might be sending their way.

3.2 Theme 2: Increased sense of responsibility

Since children are very sensitive to their environments, it is natural that they would pick up all the new information and habits from around them. Parents have shared how the kids have not only become more curious

about what is going on and started asking more questions, but they have also adapted habits of self-hygiene. They are practicing physical distancing and the idea of giving each other space is turning into second nature for them. One of the parents described it as following: “My child has been very curious and has asked many questions regarding the virus. He has started washing hands frequently and also takes care of his younger sister's hygiene”. They have also generally become more aware of communicable diseases and how to prevent them as one parent commented: “Children have become conscious about cleanliness, hygiene, and good manners for meeting and eating with others. They have also become aware about some diseases like the flu in addition to COVID itself”. Parents have also expressed how their children remind elders to wash their hands too and look after their health and this increased sense of duty, albeit in hard circumstances, has a long way to go and is hopefully a long lasting one.

3.3 Theme 3: Gratitude for being at home with family

It is true that children have never gotten so much time to be at home and spend time with their parents, who are also home bound. A lot of them consider this period to be an extended vacation and take it as opportunity to have fun. Even though there are times when they feel irritable and miss the outdoor life, they have grown to understand the value of family time. They get to choose when they sleep and study, and have also started helping in household chores. According to one parent her kids have realized the “Value of family time, helping parents, helping others in difficult time with their pocket money, and also the importance of prayers in life”.

Children are also spending more time with their siblings and cousins (if living in a joint family). This is nourishing their interpersonal development as in normal days, their schedules are so tough that they don't get a lot of play time with other children at home. They find this to be a special occasion in that sense, since there is no better learning and growth than from one's own siblings. This shows us that amidst all the negative feelings of fear, unhappiness and confusion, children retain the ability to look at the silver lining in all situations. In fact, their positivity can also uplift and provide perspective to their elders as one aunt commented: “(My niece) is happy because her mother and I are able to spend with her. We both are working women so didn't spend quality time with her, but now we are able to do that. As an individual, I too have realized how important family time is. Balance in life is the key to success.”

Figure 1 presents drawings made by children, these drawing contains objects, feelings their positioning and impact of COVID. Analysis of children's drawing identify children's feelings through feelings artifacts which they express in their drawings and the activities they are missing during COVI-19 their understanding of Virus and the protective measures. Most of the children felt unhappy and sad because of lock down and the things they were missing are school, fiends and outdoor activities and games. Most of the children draw the COVID-19 virus and represented as giant and ugly. Few children also draw mask and other protective measures. Few children also draw mask and other protective measures. The drawing themes and description may be seen in table 2.

Drawing themes	Description
Feelings	Sad, unhappy, anxious, motivated, helpless, want to fight,
Missing things during COVID	Going to school, ice-creams, outdoor games, playground, school van, trees, swings, cousins,
Virus representation and understanding	Huge Monster, large eyes with open mouth, dark colour, aggressive, dangerous, pandemic
Protective measures	Use of mask, stay at home

Table 2: Drawing Analysis.



Figure 1: Children’s Drawing.

4. Discussion

A pandemic is the worldwide spread of a new disease. It has been observed and reported in several researches that individuals face different types and levels of challenges during such periods, especially children. Major issue is the lack of awareness; this can result in

an indifferent or careless attitude, which can have adverse effects on an individual and its loved ones to prepare oneself for unseen challenges. Influences of these pandemics are often strong, which may negatively affect the mental well-being of an affected community. The fear and anxiety related to pandemics has a major

impact on the behavior and mental health of the individuals and children in the community. Hence, this study attempted to evaluate how children perceive COVID via kid's drawings and parent's perceptions. It is crucial to provide health education and create awareness during such situations for effective prevention of disease spread [5, 9, 15, 20]. In the current study, most of the parents have prior educated their children regarding COVID-19 and self-care. One parent commented: "Children have become conscious about cleanliness, hygiene, and good manners for meeting and eating with others. They have also become aware about some diseases like flu, fever and coronavirus". It has been seen in a previous study that health professionals often have better awareness, positive attitude towards epidemics/pandemics and they often experience low levels of anxiety [26].

It was observed that when anxiety affects a larger population, it may result in impulsive buying due to panic. Social media exaggerates information about COVID-19 (like news channels, several deaths reported, viral messages) outpatient clinics left empty, leading to overtiredness of resources. It also can lead to limitations in physical activities of children, outgoing with friends and relatives, missing school/ colleagues. In this rapidly changing situation, media and social conversations are entirely dominated by the outbreak, and children are exposed to large amounts of information and high levels of stress and anxiety in the children and parents around them. Hence, it is important that children need honest information about changes within their routine, community and their surroundings, when this information is absent, children attempt to make sense of the situation on their own. As one parent commented: "My children have become fearful, unhappy, surprised and careful". Similarly, additional changes like –

isolation, social distancing, self-quarantine, restriction of travel and the ever-spreading rumors in social media are also likely to affect mental health adversely [27]. Therefore, in our study children's' drawings and parents' perceptions regarding COVID-19, mostly children's are suffering from sadness, fearfulness and hopelessness, frightened and missing outdoor activities. Children mostly seen virus as giant and affecting the whole world.

5. Conclusion

As it can be seen from the emergent findings that children are finding it stressful to cope this situation. Such stressful encounters are also reported by the parents [28]. If the lockdowns and such home confined learning continues to be a trend in the near future, it needs to be planned more efficiently by ensuring that programs and curriculum should offer opportunities for children to interact and be engaged with their peers. Children engaging with their social circle is very significant in this early age. More so, there is a need to plan interventions to support holistic mental health and wellbeing of children during these hard times. These interventions will have to continue even post COVID-19 to ensure a healthy trans generational health and advancing practices to combat long term effects of COVID-19 on mental health of young children [29]. Policy makers and the researchers should explore some new vistas of school social distancing intermediations which cause lesser problems instead of the full school closures and contribute in controlling COVID-19 pandemic.

References

1. Ghosh R, Dubey M J, Chatterjee S, et al. Impact of COVID-19 on children: special focus on the psychosocial aspect. *Minerva*

- Pediatrica 72 (2020): 226-235.
2. Ilyas N, Azuine R E, Tamiz A. COVID-19 pandemic in Pakistan. *International Journal of Translational Medical Research and Public Health* 4 (2020): 37-49.
 3. Pakistan Detects First Coronavirus Cases, Links to Iran Outbreak. *COVID-19 Pandemic* (2020).
 4. Pietromarchi V. Coronavirus: Why countries should Reopen Schools. *Child Rights* (2021).
 5. Nisar M I, Ansari N, Khalid F, et al. Serial population-based serosurveys for COVID-19 in two neighbourhoods of Karachi, Pakistan. *International Journal of Infectious Diseases* 106 (2021): 176-182.
 6. Wallinga J, Teunis P, Kretzschmar M. Using data on social contacts to estimate age-specific transmission parameters for respiratory spread infectious agents. *Am J Epidemiol* 164 (2006): 936–944.
 7. World Health Organization. Reducing transmission of pandemic (H1N1) 2009 in school settings. c2009 (2020).
 8. Qazi A, Naseer K, Qazi J, et al. Conventional to online education during COVID-19 pandemic: Do develop and underdeveloped nations cope alike. *Children and Youth Services Review*, 119 (2020): 105582.
 9. Illness duration and symptom profile in symptomatic UK school-aged children tested for SARS-CoV-2. *The Lancet* (2021).
 10. Causey K, Fullman N, Sorensen R J, et al. Estimating global and regional disruptions to routine childhood vaccine coverage during the COVID-19 pandemic in 2020: a modelling study. *The Lancet* (2021).
 11. Sarkar A, Liu G, Jin Y, et al. Public health preparedness and responses to the coronavirus disease 2019 (COVID-19) pandemic in South Asia: a situation and policy analysis. *Global Health Journal* 4 (2020): 121-132.
 12. Cox C M, Blanton L, Dhara R, et al. 2009 Pandemic influenza A (H1N1) deaths among children—United States, 2009–2010. *Clinical Infectious Diseases* 52 (2011): S69-S74.
 13. Buonsenso D, Espuny Pujol F, Munblit D, et al. Clinical characteristics, activity levels and mental health problems in children with Long COVID: a survey of 510 children (2021).
 14. Liu Q, Zhou Y, Xie X, et al. The prevalence of behavioral problems among school-aged children in home quarantine during the COVID-19 pandemic in china. *Journal of affective disorders* 279 (2021): 412-416.
 15. Spinelli M, Lionetti F, Pastore M, et al. Parents' stress and children's psychological problems in families facing the COVID-19 outbreak in Italy. *Frontiers in psychology* 11 (2020): 1713.
 16. Fontanesi L, Marchetti D, Mazza C, et al. The effect of the COVID-19 lockdown on parents: A call to adopt urgent measures. *Psychological Trauma: Theory, Research, Practice, and Policy* 12 (2020): S79.
 17. Dong E, Du H, Gardner L. An interactive web-based dashboard to track COVID-19 in real time. *The Lancet infectious diseases* (2020).
 18. Education: From disruption to recovery. UNESCO. (2021).
 19. Brooks S K, Smith L E, Webster R K, et al. The impact of unplanned school closure on children's social contact: rapid evidence review. *Eurosurveillance* 25 (2020): 2000188.
 20. Gupta S, Jawanda M K. The impacts of

- COVID-19 on children. *Acta Paediatr* 109 (2020): 2181-2183.
21. Tian H, Liu Y, Li Y, et al. The impact of transmission control measures during the first 50 days of the COVID-19 epidemic in China. medRxiv (2020).
22. Lai S, Ruktanonchai N W, Zhou L, et al. Effect of non-pharmaceutical interventions to contain COVID-19 in China. *nature* 585 (2020): 410-413.
23. Brooks S K, Webster R K, Smith L E, et al. The psychological impact of quarantine and how to reduce it: rapid review of the evidence. *The lancet* 395 (2020): 912-920.
24. Soufia A Siddiqi. Covid-19 education response (2020).
25. Braun V, Clarke V. Using thematic analysis in psychology. *Qualitative research in psychology* 3 (2006): 77-101.
26. Cauchemez S, Ferguson NM, Wachtel C, et al. Closure of schools during an influenza pandemic. *Lancet Infect Dis* 9 (2009): 473-481.
27. Mishra P, Bhadauria U S, Dasar P L, et al. Knowledge, attitude and anxiety towards pandemic flu: a potential bio weapon among health professionals in Indore city. *Przegląd epidemiologiczny* 70 (2016): 41-45.
28. Banerjee D. The COVID-19 outbreak: Crucial role the psychiatrists can play. *Asian journal of psychiatry* 50 (2020): 102014.
29. Bhamani S, Makhdoom A Z, Bharuchi V, et al. Home learning in times of COVID: Experiences of parents. *Journal of Education and Educational Development* 7 (2020): 9-26.



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