



Psychological Changes in Children during Pre and Post Covid Time Due to Lockdown

Gowrishankar Palaniswamy¹ and D. V. Lal^{1*}

¹Department of Pediatrics, Saveetha Medical College, Thandalam, Chennai, India.

Authors' contributions

This work was carried out in collaboration between both authors. Both authors read and approved the final manuscript.

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ABSTRACT

Background and aim: The COVID pandemic and the lockdown measures has affected majority age group of people including children.

This study aims to analyze the notable psychological changes between parents and their children during this COVID pandemic.

Objectives: To understand the difference in presentation and prevalence of conflicts leading to psychological changes.

Materials and methods: 120 participants were included in this study who had at least one school going children and were asked to fill out the Questionnaire with questions testing the parents whether there was any pre and post COVID changes.

Descriptive analysis was done and the findings were discussed.

Results: Major notable behavioral change was in adventurous activity went from 66.66% before this pandemic to 29.16% during pandemic most probably due to lockdown effects. Sleep pattern and other factors under study had negligible changes.

Conclusion: Psychological and behavioral changes were notable by the study participants in their children during this lockdown resulting from COVID pandemic.

Keywords: COVID; psychological changes; physical activity.

1. INTRODUCTION

The COVID-19 pandemic tremendously affects society in general, and on youngsters and teenagers specifically. Although youngsters and teenagers are less influenced by dismalness and mortality, the limitations forced by governments overall significantly sway their day to day existence, including their psychological and social wellbeing [1]. A few investigations on the impacts of the COVID-19 pandemic on psychological wellness in grown-ups have now been distributed. Expanded degrees of tension, gloom, self-destructive ideation (suicidal), and post-traumatic stress, diminished mental prosperity, and rest issues like sleep problems were also common [2-9]. Quarantine and isolation measures, vulnerabilities if the pandemic will end, closure of public places and extra pressure from guardians/parents results in deteriorating mental issues in kids of school-going age [10].

Specifically, the COVID-19 episode would bring about more significant levels of mental trouble among everyone and also a higher risk of these changes intensifying among individuals experiencing a prior psychological well-being condition [11].

As per the Centers for Disease Control and Prevention, 4.4 million children in the school going of years have been determined to have nervousness and 1.9 million have been related to depression because of homestay because of COVID-19 pandemic [12]. This lockdown resulting from pandemic made a majority of parents with primary school-aged children worry about their wards psychological health and well being and few commented that their children had loneliness issues [13].

Family facing a difficult situation due to COVID-19 infection and also the dreadful nature associated with it adds on to its psychological effects [14] also COVID-19 situation reported a presence of psychological distress such as depression, stress, irritability, and post-traumatic stress symptoms associated with quarantine [15]. As most children tend to spend a lot of time with their parents in this pandemic period, assessment for the behavioural changes like temperament, mood swings and others due to quarantine could help evaluate the impact of COVID-19 in this age group of children.

2. METHODOLOGY

This study was conducted among parents having children in Tamil Nadu through an online survey . Parents who had at least one aged between 5 and 15 years, known to the researchers as well as from the parents of nearby schools were asked to fill out our selfmade questionnaire including 150 questions assessing for the behavioral changes and other psychological illness.

Questionnaire had 120 questions which has multiple questions for assessment of their child's mental healths with parents expected to answer one of yes, no and sometimes. Statements that describe children's reactions to a number of situations were included in this assessment. In this questionnaire we asked the parents to answer options on how their child had been reacting to situations comparing to pre covid era. A copy was made in the local language for better response from the parents in the local community.

Inclusion criteria: School going children age group subjects with their respective parents were included.

2.1 Sample Size, Sampling Technique and Statistical Analyses

A total of 120 parents answered our questionnaire for assessing behavioral changes in children. Descriptive analysis was done to look for any behavioral changes after this COVID pandemic.

There is no risk to the participants in this study as it involves contactless approach for filling questionnaire.

3. RESULTS

The sample size of our questionnaire included 120 parents who had at least one child aged between 5 and 15 years who were attending school before this pandemic. After a primary search from our response for the assessment scale which checks for any changes in both pre and posts COVID time, parents found their children to have differences in these following statements which are as follow likes to be friends with lots of people, would rather play a sport than watch TV and shy when talking with new people outside the home. Though the average screen

time of these children has been increased recently it mostly owed to the online schooling pattern followed nowadays which is inevitably important for children. Hence the screen time factor was not taken into consideration any further. The number of responses and their choices is plotted in the form of histogram and correlation using Pearson coefficient was done using SPSS-21 version. Variables were normally distributed. Any possible two-way linear association between our variables under study was checked using correlation coefficient (r).

Participants noticed their children's were willing to spend less time on adventurous activities like sliding in the park or other group games which went from 66.66% before this pandemic to

29.16% during the pandemic most probably due to long lockdown effects. Using Pearson coefficient, 'r' value of 0.19 was observed which signifies a positive but weak response.

In this, a gradual change is seen in parents answering "yes" as an option ranging from 48.3% to 41.6% during covid lockdown stay at home. Simultaneously, the shift from the above "yes" was mostly due to the "No" option ranging from 34.16% to 39.16% during the stay at home. Pearson's coefficient (r) = 0.54 indicating a moderate positive linear correlation between the precovid and post covid era in the children as responded by parents.

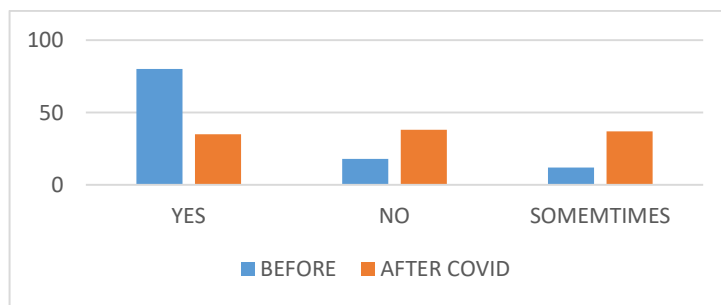


Fig:1 Likes to do Adventurous activities

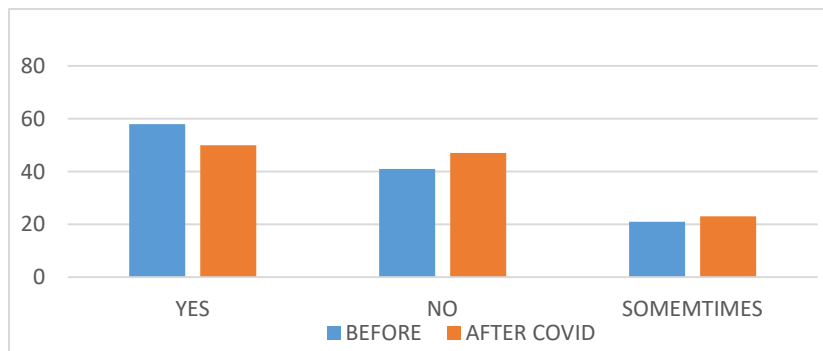


Fig 2: Shy with new people around

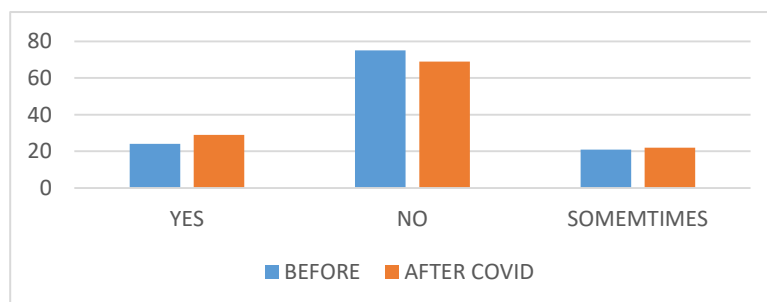


Fig. 3. Sleep disturbances during middle of night

No notable sleep difficulties were developed in this pandemic era and only a few parents found their children to have some sleeping difficulties during the middle of the night.

Other aspects which were tested on parents regarding their children included their child's interest in listening to stories or poems, attachment to other outsiders, love for pets, holding a secret from parents, afraid of dark and nightmare problems and grabbing what they want were either noted by the parents to have no or negligible changes. This states that children had been more or less similar behavioral patterns in both pre and covid time from the responses of their parents in these statements above.

4. DISCUSSION

This study compared the mental and social health of a representative sample of children from the general population during the COVID-19 lockdown and retrospectively analyzed the preCovid behaviour to present. The raise in screen-time and reduced social connection among Children lead to depressive symptoms which was a similar finding reported during the COVID-19 lockdown on all six PROMIS domains conducted by [16] et al. Significant differences in percentages of children reporting severe anxiety and sleep-related impairment were also noted in this study. In this study, children's willingness to spend time on adventurous activities like sliding in the park went from 58.66% to 22.67% due to long lockdown effects. This was found similarly in a study conducted in China wherein it was found the Children who are in strict quarantine restrictions like in urban areas with their parents at home were more prone to suffer from depressive symptoms and anxiety attacks comparing to children in village or rural areas. Likelihood to be friends with the nearby kids was found to be play 73.33% before lockdown when the schools were functional offline mode and now it has dropped to 49.33% in our study. Studies have compared this decrease in interest to children in both rural and urban setups and found the rural setup to children to be less affected by this factor as they have much less regulation of strict lockdown measures in their locality [17,18]. As the child grows the maternal and paternal influences have a significant impact on a child's psychological health especially in this lockdown period where they have to be confined in the home with their guardian and this relation was noted in studies by [19,20]. This mentioned

parental influence was seen in child's Behavior like widened screen time, less social interaction had a good influence. Other factors which we studied in this study, like the child noticing new cloth pattern in their parents, listening to music or stories, searching for a speck of dirt on objects and doing their homework without distraction had less parental influence than expected as the participant's response during both pre and post-COVID was similar. All these Behavioral and temperamental changes in the child due to this COVID-19 lockdown stresses the importance of Parent to child interaction on the pandemic which was established as one of the important helping factors by [21] to reduce presentations of behaviour and mood changes in children of schools.

5. CONCLUSION

More research is needed to study the mental and social health of these children as well as to gain insight into the longitudinal effects to know the cause of pandemic or COVID-19 infection.

Government and mental health experts must make sure that mental health interventions are made available and targeted to assist children and adolescents in dealing with public health disasters such as the COVID-19 epidemic. Furthermore, mental health professionals should create proper guidance for parents on how to assist or cope with up mechanisms for their children amid a public health emergency similar to this pandemic.

CONSENT AND ETHICAL APPROVAL

Before starting the study, the Institution Review Board of Saveetha University has approved our protocol, later grant sanction form was obtained from HOD's of all department. Further informed oral consent was obtained from all the patients before they were included in the study. No known ethical issues were found in this study.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

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