



**CORELATION BETWEEN PSYCHOLOGICAL ASPECTS AND EATING HABITS IN  
PEDIATRIC PATIENTS DURING COVID-19 HOME CONFINEMENT. A STUDY  
AMONG KASHMIRI CHILDREN**

**Dr. Mohamad Arshid Khanday\*<sup>1</sup> M.D.S and Dr. Nazia Lone,<sup>2</sup> M.D.S.**

<sup>1</sup>Registrar in Department of Pedodontics and Preventive Dentistry Govt Dental College and Hospital Srinagar.

<sup>2</sup>Professor and H.O.D –Department of Pedodontics and Preventive Dentistry Govt Dental College and Hospital Srinagar India.

**\*Corresponding Author: Dr. Mohamad Arshid Khanday**

Registrar in Department of Pedodontics and Preventive Dentistry Govt Dental College and Hospital Srinagar.

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**ABSTRACT**

**Aim and objectives:** The pandemic has challenged health professions such as Dentistry. And concerns regarding dentist's and patient's safety pushed to the reduction of routine dental care. The changes in diet, economic issues and fear, added to the lack of preventive dental care and enforced stay-at home orders. Thus, this study aimed to assess the fear level, dietary choices and parent's oral health perceptions during the stay-at-home orders period in Kashmiri children. **Methodology:** A structured questionnaire was developed. The questionnaire contained 19 mandatory questions about socioeconomic and demographic dates, fear income variability, eating habits and parent's oral health perceptions. and forwarded to parents and caregivers of children aged 0–12 years who visited in the department of pedodontics and preventive dentistry of Govt Dental college and hospital Srinagar Jammu and Kashmir India. A total of 56 participants completed the survey. The answers obtained were tabulated in Excel and the statistical analysis was performed. **Results:** The great majority of respondents (80%) were parents (mother/father), with an average age of 38 years. Most families (70%) disclosed a reduction in income, with 60% reporting a slight reduction and 25% drastic reduction or total loss of income. Regarding the oral hygiene 87.5% of parents reported brushing their children's teeth during the pandemic, 7.5% brushed sometimes and only 5% did not brush. **Conclusion:** The fallout from the COVID-19 pandemic goes far beyond that of a viral infection and threatens to undo decades of hard-won progress in pediatrics. The impact on nutrition and lifestyle is one of the submerged parts of this iceberg with potential intergenerational consequences The true burden of the pandemic in children is yet to be unveiled.

**KEY WORDS:** COVID-19; lockdown; psychological effects; emotional eating; lifestyle; eating behavior.

**INTRODUCTION**

The novel coronavirus disease 2019 (COVID-19), first reported in December 2019 in China, rapidly spread outside China and the Asian countries. On March 2020, it was declared a pandemic by the World Health Organization. Under these conditions, many countries were forced to adopt strict public health measures with the appearance of their first cases and the declaration of lockdown strategies at the local and international levels, to slow down the spread of COVID-19 pandemic. Following that was a forced quarantine at home which has had negative health impacts with substantial morbidity and mortality rates.<sup>[1]</sup> Globally, the negative effects of the COVID-19 health impacts expanded to include social and economic impacts, accompanied with sudden discontinuation of school programs for children and adolescents. During the pandemic, it was reported that there was a high prevalence of psychological stress, low mood, and irritability followed the quarantine

associated with exhaustion and emotional disturbance, anger, insomnia, and depressive symptoms.<sup>[2]</sup> Depression and stress push individuals to consume high sugar food and to choose high calorie foods to boost their mood. Prolonged staying at home may also to promote hypercaloric diets and more snacking; it may further affect individual choices to cook more or buy prepared food. This led to many changes in lifestyle habits, especially those concerning food consumption and physical activity. It is known that healthy eating and physical activity are key for health and well-being, especially when the immune system is challenged.<sup>[3]</sup> A healthy diet, based on plant-based food, healthy fats, and protein-rich food, together with weekly exercise and sunlight exposure, is set to help prevent viral diseases and enhance the human body in fighting infections such as COVID-19. However, sedentarism, unease, and tediousness caused by social isolation could lead to

changes and worsening of lifestyle patterns while also promoting binge eating.

Recently, some studies have emerged worldwide intending to assess in detail how eating habits and lifestyle of people have changed during confinement, most of them showing general trends towards the adoption of unhealthy eating habits and weaker lifestyles. It has been indicated that compared to adults, this pandemic may continue to have increased long term adverse consequences on children and adolescents. The nature and extent of impact on this age group depend on many vulnerability factors such as the developmental age, current educational status, having special needs, pre-existing mental health condition, being economically under privileged and child/ parent being quarantined due to infection or fear of infection. The suspension of school programs and sports activities during the pandemic has led children and adolescents to spend longer periods at home. The new routine may result in an increase in food intake, including ultra-processed and calorie-dense foods. Pietrobelli *et al.* suggested that potato chips, red meat, and sugary drink intakes significantly increased in Italy during the lockdown. High-carbohydrates diets may lead to several health issues, such as obesity, diabetes, as well as poor oral health.<sup>[4]</sup> Frequent sugar intake favors dental biofilm accumulation and contributes to the development of caries lesions and periodontal disease. Meanwhile, the pandemic has challenged health professions such as Dentistry. Concerns regarding dentist's and patient's safety pushed to the reduction of routine dental care. The changes in diet, economic issues, general concerns, fear, added to the lack of preventive dental care, could impact the oral health of children during the enforced stay-at-home orders.<sup>[5]</sup> Thus, this study aimed to assess the fear level, dietary choices and parent's oral health perceptions during the stay-at-home orders period in Kashmiri children.

#### MATERIAL AND METHODS

This was a cross-sectional study that was carried out using non-probabilistic sampling, with parents of children aged 0–12 years. Participation in the online survey was entirely voluntary and anonymous. Participants were informed about the purpose of the research and asked for permission to use and publish the data from the study before starting the questionnaire.

A structured questionnaire was developed. The questionnaire contained 19 mandatory questions about socioeconomic and demographic dates, fear income variability, eating habits and parent's oral health perceptions. The original questionnaire was an open survey, written in English language and forwarded to parents and caregivers of children aged 0–12 years who visited in the department of pedodontics and preventive dentistry of Govt Dental college and hospital Srinagar Jammu and Kashmir India from 20 February 2021 to March 10 2021. All the respondents had access to the Consent Statement and requested to agree with it before

being included in the present study. The approximate time for the answer to the questionnaire was informed, being about five minutes. The answers and data obtained were stored by the researchers and used only for this study. To ensure the anonymity of each respondent, no identifying information was collected. A total of 56 participants completed the survey. The answers obtained were tabulated in Excel and the statistical analysis was performed using the IBM-SPSS 22.0 software.

#### RESULTS

A total of 80 questionnaires were filled in by parents/caregivers in our department that constituted the people across the Kashmir. The great majority of respondents (80%) were parents (mother/father), with an average age of 38 years. Most families (70%) disclosed a reduction in income, with 60% reporting a slight reduction and 25% drastic reduction or total loss of income.

Regarding the number of people living in each house, 70% of the participants had two to three children, and 64% of respondents had 1 or 2 children aged 0 to 12 years. Of the 80 respondents only 2.4% of respondents had confirmed COVID-19, and 7% had symptoms but were not tested. 60% respondents said they did not leave their houses for medical or dental appointments and were leaving their houses only when necessary. 75% responders reported that they were leaving their houses for work. 61.5% of respondents reported changes in eating habits during the pandemic; most of them revealed an increase in food intake. Of those who claimed changes in eating habits, only 33.1% said they were choosing healthier foods, while the others increased the consumption of processed foods, pasta and snacks. Families with drastic or total loss of income are eating less than before or opting for cheaper food.

Regarding the oral hygiene 87.5% of parents reported brushing their children's teeth during the pandemic, 7.5% brushed sometimes and only 5% did not brush.

Regarding oral health, 25% of parents reported that their children underwent routine dental treatment before the pandemic but 17.8% of total respondents said that they were willing to take their children to dental care regardless of the procedure and 70 % would only seek urgent dental care, and 10% would not seek dental care at all due to fear of COVID. Eight parents declared that their children suffered dental trauma during the.

#### DISCUSSION

The lockdown measures during the pandemic caused a great impact on everyday life. There are increased concerns regarding the negative psychological implications that the epidemic has brought with it, especially for the child population. The fear of one's own health and of their loved ones, social distancing and staying at home due to quarantine obligations have put a strain on the emotional sphere of every child.<sup>[6]</sup> Families

living in areas with higher numbers of COVID-19 cases fear more for safety than those living in less affected areas. It results in greater precaution regarding the seek for dental treatments since parents with higher levels of fear are also those who would either take their children to the dentist only in dental urgencies.<sup>[7]</sup> Viner et-al conducted a study where in they concluded that younger children (3-6years old) were more likely to manifest symptoms of clinginess and the fear of family members being infected than older children (6-18 years old).<sup>[8]</sup> In the present study, over 50% of respondents reported fear levels. It resulted in greater precaution regarding the seek for dental treatments since parents with higher levels of fear are also those who would either take their children to the dentist only in dental urgencies or would not take them at all.

COVID-19 has led to closure and reduced hours of dental practices except for emergency and urgent services, limiting routine care and prevention. Dental care includes aerosol-generating procedures that can increase viral transmission. As a result, access to dental care substantially decreased.<sup>[9]</sup> In our study 60% respondents said they did not leave their houses for medical or dental appointments and were leaving their houses only when necessary and 70 % would only seek urgent dental care, and 10% would not seek dental care at all due to fear of COVID-19.

The COVID-19 pandemic presents an opportunity for the dental profession to shift from an approach focused on surgical intervention to one emphasizing prevention. Embracing nonsurgical, nonaerosolizing caries prevention and management will be critical in this endeavor.<sup>[10]</sup> The profession has always supported community water fluoridation, and dental hygienists are considered prevention experts. Guidelines have been developed to shift the dental care paradigm to a more preventive focus. Strategies include reduction in common risk factors such as tobacco and alcohol use, promotion of a healthy diet low in sugars, community water fluoridation, topical fluorides, and promotion of oral health in community settings.<sup>[11]</sup> These oral health messages and interventions should be integrated into medical sites such as primary care and pediatric offices. Prevention and nonsurgical caries management include many options. Evidence-based materials include dental resin sealants, glass ionomers as sealants or as part of atraumatic restorative treatment performed with hand instruments, silver diamine fluoride, sodium fluoride varnish, and other self-applied and professionally applied topical fluorides.<sup>[12]</sup>

It is known that healthy eating and physical activity are key for health and well-being, especially when the immune system is challenged. A healthy diet, based on plant-based food, healthy fats, and protein-rich food, together with weekly exercise and sunlight exposure, is set to help prevent viral diseases and enhance the human body in fighting infections such as COVID-19.<sup>[13]</sup>

However, sedentarism, unease, and tediousness caused by social isolation could lead to changes and worsening of lifestyle patterns while also promoting binge eating.<sup>[14]</sup> In our study it was seen that 61.5% of respondents reported changes in eating habits during the pandemic; most of them revealed an increase in food intake. In the study conducted by Sánchez-Sánchez et al., an increase in the consumption of alcoholic beverages, salty and fried snacks, and homemade confectionary was reported.<sup>[15]</sup> Some studies have emerged worldwide intending to assess in detail how eating habits and lifestyle of people have changed during confinement, most of them showing general trends towards the adoption of unhealthy eating habits and weaker lifestyles.<sup>[16]</sup>

## CONCLUSION

It is perhaps not hyperbole to describe pandemic-related circumstances as creating a “perfect storm” in oral health care in the United States. Risk factors are elevated, access for the most vulnerable is limited, safety concerns are heightened, and the economy presents substantial challenges for patients and providers alike. In such a time, oral health care providers and advocates must clearly communicate the importance of oral health to overall health, indicate the steps being taken to ensure patient and provider safety, and promote prevention and nonaerosolizing procedures. The fallout from the COVID-19 pandemic goes far beyond that of a viral infection and threatens to undo decades of hard-won progress in pediatrics. The impact on nutrition and lifestyle is one of the submerged parts of this iceberg with potential intergenerational consequences. The true burden of the pandemic in children is yet to be unveiled.

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