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**Original Research Article**

# Parental mental health during COVID-19 pandemic in Tamil Nadu: a cross sectional study

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## ABSTRACT

**Background:** The whole world became still, when a major pandemic COVID-19 started its toll across all developed and developing countries. It has caused both physical and emotional disturbances among all age groups. This study was done to evaluate the parental mental health in COVID-19 as this group is not given much importance. The major mental health problems associated with COVID-19 among parents are due to online classes which has caused depression, anxiety and stress.
**Methods:** A cross-sectional study done among all parents, especially those of whose children are attending online class were included in the study. Convenient sampling was used to select 204 participants, GHQ 12 questionnaire was used for data collection on mental health status among parents.
**Results:** Overall prevalence of parents with better mental health <19 was 108 (52.9%) and prevalence of parents with poor mental health >19 was 96 (47.1%).
**Conclusions:** This study concluded that parental age of 31 to 40 years who are employed and have children studying in primary school to have a poor mental health status. The most important contributing factors for poor parental health were online classes for children and work place stress.

**Keywords:** COVID-19, General health questionnaire, Mental health

## INTRODUCTION

The whole world became still, when a major pandemic COVID-19 started its toll across all developed and developing countries. COVID-19 started to show its evil face by affecting individuals of all age groups, many people lost their dear ones for the wrath of this dreadful disease. The first case of COVID-19 in India, was reported on 30 January 2020 till date 58,18,570 people are affected by this disease, it has a potential to further increase in coming years.[1] In view of COVID-19 pandemic, central government ordered closure of all schools and colleges from 24th March 2020 to prevent the spread of disease.[2,3] In order to strengthen the academics sector, Tamil Nadu government approved for online based lectures from June 2020 onwards in all government schools, private schools and colleges. As a result, students are forced to spend long hours on computers and smart phones for their online sessions, this has caused headache, eye problems and stress among younger generation.[4] The ministry of human resource development (MHRD) has recommended two online sessions of 45 minutes each for students of class 1 to 8, while for classes 9 to 12 it should be four sessions of 30-45 minutes duration. Even then many parents allege that schools do not abide by the guidelines insisted by government.[5] The Online classes which is completely new had affected physical and mental well-being of both parents and their children.

The major mental health problems associated with online classes are depression, anxiety and stress.[6] Though major

cause for deranged mental health among parents is online classes other factors such as the disease itself, financial burden and lack of support also plays some part. This study on parental mental health was done since more focus is given to mental health of children and parental mental health is often ignored. Employed parents are at high risk, as their mental health is already affected by certain factors like financial constraints, workplace stress etc., but however again there is not much focus on unemployed participants as in a country like India those who are indoor are considered to do lesser work but it is usually wise versa in present scenario as they do not have weekly and monthly holidays like the other group.[7] In addition, some parents who work from home during this scenario ought to balance their work and children online classes.[8] Hence this issue should be addressed at the earliest to provide a better living standard in future and the present study aimed to determine the effect of COVID-19 on parental mental health and associated socio-demographic factors in Tamil Nadu.

## METHODS

This study was conducted as cross-sectional study for a period of 3 months from June to August 2020. All parents, especially those of whose children are attending online class were included in the study. After obtaining informed verbal consent from the parents, data was obtained through online portal using Google forms

The study tool comprised of two sections, first section was a semi-structured questionnaire and information about socio-demographic characteristics like name, age, sex, occupation, marital status, child's learning status and second section was general health questionnaire-12 (GHQ-12) to elicit minor psychiatric problems.

Data was entered in Excel spread sheet and analysed by using SPSS version 21.0. Socio-demographic factors were expressed as percentage and parental mental health was expressed as mean value and Chi-square analysis was used to find out the association between parental mental health and socio-demographic factors.

## RESULTS

A cross-sectional study was conducted among 204 study participants, out of which 96 were male and 108 were female. Majority of the parents were employed 153 (75.0%) and 198 (97.1%) were currently married. With regards to children education status, primary school children were 100 (49.0%), middle school children were 40 (19.6%) and higher secondary school children were 64 (31.4%). This study found no significant gender differences in parental mental health.

Hence as per this study majority of them were employed and living with family with children studying in primary school. Table 2 shows the mean value of parental mental health by using general health questionnaire-12 and it was found to be 19±2.29. Overall prevalence of parents with better mental health <19 was 108 (52.9%) and prevalence of parents with poor mental health >19 was 96 (47.1%).

**Table 1: Socio-demographic profile.**

| Variables | Categories | Frequency | % |
|---|---|---|---|
| **Age (years)** | 20 to 30 | 47 | 23.0 |
| | 31 to 40 | 77 | 37.7 |
| | 41 to 50 | 50 | 24.5 |
| | Above 50 | 30 | 14.7 |
| **Sex** | Male | 96 | 47.1 |
| | Female | 108 | 52.9 |
| **Occupation** | Employed | 153 | 75.0 |
| | Un-employed | 51 | 25.0 |
| **Marital status** | Married | 198 | 97.1 |
| | Divorced/ widowed/ separated | 6 | 2.9 |
| **Children educational status** | Primary school | 100 | 49.0 |
| | Middle school | 40 | 19.6 |
| | H. secondary school | 64 | 31.4 |

**Table 2: Frequency distribution of variables in general health questionnaire.**

| GHQ-12 items | Frequency | % |
|---|---|---|
| **Able to concentrate** | 112 | 54.9 |
| **Loss of sleep over worry** | 104 | 51.0 |
| **Playing a useful part** | 181 | 88.7 |
| **Capable of making decisions** | 89 | 43.6 |
| **Felt constantly under strain** | 104 | 51.0 |
| **Couldn't overcome difficulties** | 120 | 58.8 |
| **Able to enjoy day-to-day activities** | 129 | 63.2 |
| **Able to face problems** | 121 | 59.3 |
| **Feeling unhappy and depressed** | 107 | 52.5 |
| **Losing confidence** | 91 | 44.6 |
| **Thinking of self as worthless** | 114 | 55.9 |
| **Feeling reasonably happy** | 121 | 60.8 |

**Table 3: Contributing factors for poor mental health.**

| Contributing factors | Frequency | % |
|---|---|---|
| **Online class for children** | 96 | 47.1 |
| **Work place pressure** | 75 | 36.8 |
| **Financial crisis** | 54 | 26.4 |
| **Sick family members** | 36 | 17.6 |
| **Others** | 12 | 5.9 |

Table 3 is about the important contributing factors for poor parental mental health, online class for children 96 (47.1%) followed by work place pressure 75 (36.8%), and financial crisis 54 (26.4%) were determined to be the factors.

**Table 4: Distribution of risk factors associated with mental illness.**

| Variables | | GHQ score <19 | | GHQ score >19 | | Chi-square value | P value |
|---|---|---|---|---|---|---|---|
| **Age (years)** | 20 to 30 | 24 | 22.2% | 23 | 24.0% | 1.104 | 0.776 |
| | 31 to 40 | 44 | 40.7% | 33 | 34.4% | | |
| | 41 to 50 | 24 | 22.2% | 26 | 27.1% | | |
| | Above 50 | 16 | 14.8% | 14 | 14.6% | | |
| **Sex** | Male | 54 | 50.0% | 42 | 56.3% | 0.767 | 0.226 |
| | Female | 54 | 50.0% | 54 | 43.8% | | |
| **Occupation** | Employed | 88 | 57.5% | 65 | 42.5% | 5.142 | <0.001 |
| | Un-employed | 20 | 39.2% | 31 | 60.8% | | |
| **Marital status** | Married | 106 | 98.1% | 92 | 95.8% | .954 | 0.288 |
| | Divorced/widowed/ separated | 2 | 1.9% | 4 | 4.2% | | |
| **Child learning stage** | Primary school | 57 | 52.8% | 43 | 44.8% | 10.095 | 0.073 |
| | Middle school | 21 | 19.5% | 19 | 19.8% | | |
| | H. Sec. school | 30 | 46.9% | 34 | 35.4% | | |

Table 4 shows the association of mental health with sociodemographic factors. Employed participants had good mental health 88 (57.5%) and association was statistically significant (p=0.018). Parents belonging to the age group of 31 to 40years i.e. 77 (37.7%) having children studying in primary school i.e., 57 (52.8%) had a poor mental health status.

## DISCUSSION

COVID pandemic has resulted in financial burden, physical and emotional stress and among people. There are not many literatures on mental health status of parents and this group is often ignored. It is essential that parental mental health is addressed equally like mental health of children and young adults, as better mental health status of parents would create a generation of children with good physical and emotional well-being. This study explored the relationships between different factors and parental mental health. In a study done by Spinelli et al, there were no relevant associations of COVID-contact risk index and home environment risk index with dyadic parenting stress, parents individual stress, and children's psychological problem.[9] Another similar study was conducted by Brown et al, reported a greater COVID-19 related stressors and high anxiety and depressive symptoms were associated with higher parental perceived stress and receipt of financial assistance and high anxiety and depressive symptoms are associated with higher child abuse potential.[10]

Elderly individuals suffering from non-communicable diseases are at additional risk of poor psychological status related to COVID-19 as evident from study done by Olickal et al, on mental health status of person with diabetes in Puducherry.[11] In the present study along with parents, grandparents were also included as most of the parents were employed. 30% of grandparents had moderate psychological stress and 3% had severe psychological stress and it was also related to national level lockdown and wearing mask etc. Another study conducted by Wu et al on mental health status of parents during COVID-19 pandemic and its influence factors showed the detection rates of depression and anxiety in parents as 6.1% and 4.0% respectively.[12] The anxiety among parents of college students was lower than that of parents of primary, middle and higher secondary school children. Perceived stress of parents with familial conflict was significantly higher than those with a harmonious family. These results were similar to our study. In present study parents who were married and had children studying in primary school had higher GHQ mean score and had poor mental health compared to those who were widowed/divorced/separated. In a study done by Furlong et al, 30% of families were experiencing challenges due to restrictions because of lockdown.[13] Mental distress was also found to be exacerbated in parent who was prone to risk of relapse and hospitalization. Clinicians also reported that within one lone-parent family, other family members were stepping in to provide childcare. However children were experiencing inappropriate levels of care to help prevent their mother's relapse. A study was conducted by Alonzo et al, on mental health impact of the COVID-19 pandemic on parents in high-risk, low-income communities.[14] It showed that parents more often reported feelings of burnout than nonparents (p<0.001) and non-parents were 70% less likely to endorse the feelings of stress when compared to parents (OR=0.285; p=0.014). Our study primarily included all parents and grandparents.

The present study primarily aimed at estimating psychological stress each parent goes through during a national level emergency. Health is a basic human right of each individual and since it is multi-dimensional both physical and mental wellbeing of individuals needs to be given equal importance.

## CONCLUSION

This study concluded that parental age of 31 to 40 years who are employed and have children studying in primary

school to have a poor mental health status. The most important contributing factors for poor parental health were online classes for children and work place stress. Hence in order to maintain a proper work life balance which is the ultimate goal of healthy living, mental health status of parents is of primary concern in present scenario.

***Recommendations***

Early interventions with appropriate regulatory measures like psychiatric counselling, more of self-time and actively participating in activities like yoga, selfcare and lifestyle management courses will help in the betterment of mental status of parents.

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## REFERENCES

1. Coronavirus statistics in India- Bing. Bing.com. 2020. Available from: https://www.bing.com/search?q=Coronavirus+statistics+in+India. Accessed on 25 September 2020.
2. Zhou F, Yu T, Du R, Fan G, Liu Y, Liu Z, et al. Clinical course and risk factors for mortality of adult inpatients with COVID-19 in Wuhan, China: a retrospective cohort study. Lancet. 2020;395(10229):1054-62.
3. COVID-19: Primary Schools Closed in Tamil Nadu Till March 31. NDTV.com. 2020. Available from: https://www.ndtv.com/education/covid-19-primary-schools-closed-in-tamil-nadu-till-march-31-2195174. Accessed on 25 September 2020.
4. Online classes leading to stress, eye problems in children, say parents. Hindustan Times. 2020. Available from: https://www.hindustantimes.com/chandigarh/online-classes-leading-to-stress-eye-problems-in-children-say-parents/story-y4a8cnLKqHN8oCqozZ0psN.html. Accessed on 24 September 2020.
5. HRD announces guidelines for online classes, recommends cap on number of sessions. The Economic Times. 2020. Available from: https://economictimes.indiatimes.com/industry/services/education/hrd-announces-guidelines-for-online-classes-recommends-cap-on-number-of-sessions/articleshow/76961155.cms?from=mdr. Accessed on 23 September 2020.
6. Riebschleger J, Costello S, Cavanaugh D, Grové C. Mental Health Literacy of Youth That Have a Family Member with a Mental Illness: Outcomes from a New Program and Scale. Front Psychiatr. 2019;10.
7. Gillihan SJ. How to Handle Work-From-Home Burnout. WebMD. 2020. Available from: https://blogs.webmd.com/mental-health/20200702/how-to-handle-work-from-home-burnout. Accessed on 25 September 2020.
8. Rana V. 7 Tips to Balance Study, Work, And Personal Life- eLearning Industry. eLearning Industry. 2020. Available from: https://elearningindustry.com/7-tips-balance-study-work-and-personal-life. Accessed on 25 September 2020.
9. Gillihan SJ. How to Handle Work-From-Home Burnout. WebMD. 2020. Available from: https://blogs.webmd.com/mental-health/20200702/how-to-handle-work-from-home-burnout. Accessed on 25 September 2020.
10. Rana V. 7 Tips to Balance Study, Work, And Personal Life- eLearning Industry. eLearning Industry. 2020. Available from: https://elearningindustry.com/7-tips-balance-study-work-and-personal-life. Accessed on 25 September 2020
11. Olickal J, Chinnakali P, Suryanarayana B, Ulaganeethi R, Kumar S, Saya G. Effect of COVID-19 pandemic and national lockdown on persons with diabetes from rural areas availing care in a tertiary care center, southern India. Diabetes Metab Syndr Clin Res Rev. 2020;14(6):1967-72.
12. Wu M, Xu W, Yao Y, Zhang L, Guo L, Fan J, et al. Mental health status of students' parents during COVID-19 pandemic and its influence factors. Gen Psychiatr. 2020;33(4):e100250.
13. Furlong M, McGilloway S, Mulligan C, Killion MG, McGarr S, Grant A, et al. Covid-19 and families with parental mental illness: crisis and opportunity. Front Psychiatr. 2021;12:567447.
14. Alonzo D, Popescu M, Ioannides ZP. Mental health impact of the Covid-19 pandemic on parents in high-risk, low-income communities. Int J Soc Psychiatr. 2021;002076402199189.

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