



Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

Elsevier hereby grants permission to make all its COVID-19-related research that is available on the COVID-19 resource centre - including this research content - immediately available in PubMed Central and other publicly funded repositories, such as the WHO COVID database with rights for unrestricted research re-use and analyses in any form or by any means with acknowledgement of the original source. These permissions are granted for free by Elsevier for as long as the COVID-19 resource centre remains active.



Contents lists available at ScienceDirect

## Diabetes &amp; Metabolic Syndrome: Clinical Research &amp; Reviews

journal homepage: [www.elsevier.com/locate/dsx](http://www.elsevier.com/locate/dsx)

# Psycho-social and behavioural impact of COVID 19 on young adults: Qualitative research comprising focused group discussion and in-depth interviews

Archisman Mazumder <sup>a</sup>, Kamal Bandhu Kalanidhi <sup>b</sup>, Siddharth Sarkar <sup>c</sup>, Piyush Ranjan <sup>d,\*</sup>, Anamika Sahu <sup>e</sup>, Tanveer Kaur <sup>d</sup>, Divjyot Kaur <sup>f</sup>, Aakashneel Bhattacharya <sup>d</sup>, Sarada Priyadarshini Suna <sup>d</sup>, Bindu Prakash <sup>d</sup>, Koushik Sinha Deb <sup>g</sup>, Naveet Wig <sup>d</sup>

<sup>a</sup> AIIMS, New Delhi, India

<sup>b</sup> Department of Geriatric Medicine, AIIMS, New Delhi, India

<sup>c</sup> Department of Psychiatry and National Drug Dependence Treatment Centre, AIIMS, New Delhi, India

<sup>d</sup> Department of Medicine, AIIMS, New Delhi, India

<sup>e</sup> Student Wellness Centre, AIIMS, New Delhi, India

<sup>f</sup> Department of Home Science, University of Delhi, India

<sup>g</sup> Department of Psychiatry, AIIMS, New Delhi, India

## ARTICLE INFO

### Article history:

Received 8 December 2020

Received in revised form

23 December 2020

Accepted 28 December 2020

### Keywords:

COVID 19

Psycho-social functioning

Behaviour

Young adults

Qualitative research

## ABSTRACT

A qualitative study comprising eight focus group discussions and two in-depth interviews were conducted to explore the social and behavioural changes in young adults during COVID pandemic. Common themes identified were changes in interpersonal and intrapersonal relationships, changes in health-related behaviour, lifestyle modifications and impact on academic and professional life.

© 2021 Diabetes India. Published by Elsevier Ltd. All rights reserved.

## 1. Introduction

COVID-19 pandemic has been a public health crisis that has affected all strata of the society in a number of ways. Recently, researchers from different parts of the world have conducted a couple of studies to evaluate the effect of COVID 19 on the different behavioural aspects of human beings [1–3]. However, there is a dearth of comprehensive explorations about the socio-behavioural changes in the young population, which forms a larger proportion in any society. We conducted qualitative research to explore the social and behavioural changes in young adults during COVID 19 pandemic and to identify the differences among the various groups namely, college students, working individuals and housewives.

\* Corresponding author. Department of Medicine, Third floor, Teaching Block, All India Institute of Medical Sciences, New Delhi, India.

E-mail address: [drpiyushdost@gmail.com](mailto:drpiyushdost@gmail.com) (P. Ranjan).

## 2. Materials and methods

The study was conducted in September 2020 after being approved by the ethics committee of the institution. The participants were selected by convenience and snowball sampling techniques. The FGDs and in-depth interviews were arranged for the participants who could converse in Hindi/English and had access to telephones and internet for in-depth interviews and FGDs respectively.

Two in-depth interviews and eight FGDs, each with four-five participants were conducted with a total of 39 participants. Each of the FGDs and in-depth interviews was moderated by one of the investigators. Each FGD lasted for about 45–50 min. In-depth interviews were also carried out over the telephone, each session lasting for about 20–25 min. The FGD/interview was guided using a set of questions (Supplementary, Table 1) to keep the participants focused on the purpose of the study. Participants were encouraged to add any additional information if required.

**Table 1**  
Themes and Subthemes.

| College Students  | Working People   | Housewives  |
|---|--|---|
| <p><b>Theme 1: Changes in Personal Relationships</b></p> <p>Subtheme 1a: Changes in relationship with family</p> <p>Subtheme 1b: Changes in relationship with friends</p> <p>Subtheme 1c: More time to themselves</p> <p><b>Theme 2: Changes in Health-Related Behaviour</b></p> <p>Subtheme 2a: Increased personal Hygiene</p> <p>Subtheme 2b: increase in preventive practice</p> <p>Subtheme 2c: Increased concern towards health</p> <p><b>Theme3: Lifestyle Modification</b></p> <p>Subtheme 3a: Healthier diet pattern</p> <p>Subtheme 3b: increase in physical exercise</p> <p>Subtheme 3c: Disorganised sleep pattern</p> <p>Subtheme 3d: Increase in screen time</p> <p><b>Theme 4: Changes in Work life</b></p> <p>Subtheme 4a: Problem in travelling to the workplace</p> <p>Subtheme 4b: Imbalance between personal and professional life</p> <p>Subtheme 4c: Fear of losing the job or salary cut</p> <p>Subtheme 4d: stress due to impact on business</p> | <p><b>Theme 1: Changes in Personal Relationships</b></p> <p>Subtheme 1a: Changes in relationship with family</p> <p>Subtheme 1b: Changes in relationship with friends</p> <p>Subtheme 1c: More time to themselves</p> <p><b>Theme 2: Changes in Health-Related Behaviour</b></p> <p>Subtheme 2a: Increased personal Hygiene</p> <p>Subtheme 2b: increase in preventive practice</p> <p>Subtheme 2c: Increased concern towards health</p> <p><b>Theme 3: Lifestyle Modification</b></p> <p>Subtheme 3a: Healthier diet pattern</p> <p>Subtheme 3b: increase in physical exercise</p> <p>Subtheme 3c: Disorganised sleep pattern</p> <p>Subtheme 3d: Increase in screen time</p> <p><b>Theme 4: Changes in Work life</b></p> <p>Subtheme 4a: Problem in travelling to the workplace</p> <p>Subtheme 4b: Imbalance between personal and professional life</p> <p>Subtheme 4c: Fear of losing the job or salary cut</p> <p>Subtheme 4d: stress due to impact on business</p> | <p><b>Theme 1: Changes in Personal Relationships</b></p> <p>Subtheme 1a: Improved relations with family</p> <p>Subtheme 1b: Changed norms for Social gatherings:</p> <p><b>Theme2: Changes in Health-Related Behaviour</b></p> <p>Subtheme 2a: Increased personal Hygiene</p> <p>Subtheme 2b: Preventive practices:</p> <p>Subtheme 2c: Increased concern towards health</p> <p>Subtheme 2d: <b>Virtual consultations with doctors:</b></p> <p><b>Theme 3: Lifestyle changes</b></p> <p>Subtheme 3a: Healthier dietary habits</p> <p>Subtheme 3b: Increased physical exercise</p> <p>Subtheme 3c: Increase in screen time</p> <p><b>Theme 4: Increased burden of household chores</b></p> <p>Subtheme 4a: Increased number of family members at home</p> <p>Subtheme 4b: Increased demand of children</p> <p>Subtheme 4c: Absence of household help due to lockdown</p> <p>Subtheme 4d: Family members acting as helping hand</p> |

After the completion of audio-recorded discussions, the contents of the recorded files were transcribed verbatim in English and all the personally identifiable information was removed by the investigators. Inductive thematic analysis was used to analyse the

data [4]. In the first step, researchers read through the text line by line to get familiarised with the data and to generate initial codes. These codes were then sorted into the potential themes and sub-themes, and this step was conducted by two researchers

independently, to ensure reliability.

### 3. Results

Thirty-nine individuals participated in the study. The average age of the participants was found to be  $28.54 \pm 7.93$  (Mean  $\pm$  SD) years, out of which 16 were males and 23 were females. These participants consisted of college students, working individuals and housewives. The common themes generated in FGDs and In-depth interviews were changes in Interpersonal and Intrapersonal relationships, changes in Health-related Behaviour and Lifestyle modifications whereas themes such as Impact on academic life, work-life and household chores were pertinent to college students, working individuals and housewives respectively. The details of themes and subthemes are tabulated in Table 1.

### 4. Discussion

This study explored the impact of COVID-19 pandemic on the lives of young adults. We found that the pandemic had both a positive and a negative impact on their lives.

Changes in intrapersonal and interpersonal relationships were experienced by these individuals. Participants got the opportunity to explore themselves by indulging in various hobbies and got more time to spend with their family members, which had always lacked due to their busy schedules. This is in accordance with the findings of Fullana et al. and Zhang et al., 2020 [5,6].

Humans have an inherent need for social connection as it helps them deal with difficult situations, emotionally and psychologically. Therefore, the inability to move out of the house and socialise with their friends, relatives and colleagues, has caused a significant amount of distress. People have tried to cope with this distress by connecting virtually with their loved ones [7].

There has been a remarkable change in the attitude towards personal hygiene. Many got obsessed with the repetitive thoughts of cleanliness and using sanitizers, causing excessive distress, anxiety and impact on daily functioning. People are also following the preventive practice measures but since the lockdown has been lifted, some got callous [8–10].

Pandemic has certainly led to serious lifestyle modifications. The dietary pattern has become healthier for the majority of the participants as there is more consumption of home-cooked food in comparison to unhealthy food, as dining at the restaurants or online ordering of food has drastically reduced. Our study also explored the increase in physical activity in absence of domestic help. Apart from this, we found that the sleep cycle of all the participants has been impacted severely. COVID 19 pandemic has upended the sleep cycle of some individuals owing to the factors such as work-life imbalance, increased screen time and stress or fear of the pandemic [11].

The lives of the students have been impacted during this pandemic due to the culture of online classes as virtual classes do not seem to be a very effective substitute for the learning that occurs in physical classes [12]. There is also a fear of losing career opportunities in the near future due to the economic crisis.

Apart from college students, the working population is also unable to manage their professional and personal lives in this work from home culture. People are burdened with an increased amount of work regularly and are also expected to work in the odd hours. This finding is contradictory to a previous study where they found that more than half of the participants had a positive outlook for work from home culture [13].

Besides, people have been affected by the reports regarding COVID 19 in print, electronic and social media especially chemoprophylaxis and care of vulnerable groups like elderly and pregnant

women [14]. The inconsistent reports regarding HCQ prophylaxis and vaccines have resulted in uncertainties among the mind of people [15,16].

This study provides a glimpse of the social and behavioural changes occurring in the lives of young adults during this pandemic. It provides insights about the lived experiences of these individuals, thus, enhancing our comprehension about what bothers them and how they are coping with it to improve the quality of their lives.

### Ethics approval

The Ethical clearance was obtained from the Institute Ethics Committee, AIIMS, New Delhi. IEC-689/July 03, 2020, OP-15/August 07, 2020, Date: August 11, 2020.

### Declaration of competing interest

There is no conflict of interests.

### Acknowledgement

The study was supported by AIIMS intramural research grant under theme “Research on SARS-CoV-2 and COVID-19”.

### Appendix A. Supplementary data

Supplementary data to this article can be found online at <https://doi.org/10.1016/j.dsx.2020.12.039>.

### References

- [1] Kumari A, Ranjan P, Vikram NK, Kaur D, Sahu A, Dwivedi SN, et al. A short questionnaire to assess changes in lifestyle-related behaviour during COVID 19 pandemic. *Diabet Metab Syndr* 2020 Aug 26;14(6):1697–701.
- [2] Chopra S, Ranjan P, Malhotra A, Sahu A, Dwivedi SN, Baitha U, et al. Development and validation of a questionnaire to evaluate the impact of COVID on lifestyle related behaviors: eating habits, activity and sleep behavior. *Publ Health Nutr* 2020 Nov 16:1–24.
- [3] Ranjan P, Bhattacharya A, Chakrawarty A, et al. Association between self-reported adherence to preventive practices and probability of turning COVID-19 positive: a cross-sectional analytical study. *Cureus* 2020 Dec 01;12(12):e11815. <https://doi.org/10.7759/cureus.11815>.
- [4] Braun V, Clarke V. Using thematic analysis in psychology. *Qual Res Psychol* 2006;3(2):77–101.
- [5] Fullana MA, Hidalgo-Mazzei D, Vieta E, Radua J. Coping behaviors associated with decreased anxiety and depressive symptoms during the COVID-19 pandemic and lockdown. *J Affect Disord* 2020;275:80–1.
- [6] Zhang Y, Ma ZF. Impact of the COVID-19 pandemic on mental health and quality of life among local residents in Liaoning Province, China: a cross-sectional study. *Int J Environ Res Publ Health* 2020;17(7):2381.
- [7] Fancourt D, Bu F, Mak HW, et al. COVID-19 social study. Report. Nuffield Foundation; 2020. Apr 2.
- [8] Chakrawarty A, Ranjan P, Thrinath A, Aggarwal E, Isaac JA, Berry P, Baitha U, Upadhyay AD, Chowdhury S, Kumar A. Assessment of preventive practices followed by general public during COVID-19 pandemic - a cross-sectional survey from India. *Cureus* 2020 Oct 31;12(10):e11274. <https://doi.org/10.7759/cureus.11274>.
- [9] Agarwal A, Ranjan P, Saraswat A, Kasi K, Bharadiya V, Vikram N, et al. Are health care workers following preventive practices in the COVID-19 pandemic properly? - a cross-sectional survey from India. *Diabet Metab Syndr* 2021;15(1):69–75. <https://doi.org/10.1016/j.dsx.2020.12.016>.
- [10] News 18. Why is the public less scared of covid-19 now? An expert explains. Available at: <https://www.news18.com/news/lifestyle/psychology-behind-the-carefree-attitude-towards-covid-19-myupchar-2846895.html>. [Accessed 17 October 2020].
- [11] Chopra S, Ranjan P, Singh V, Kumar S, Arora M, Hasan MS, et al. Impact of COVID-19 on lifestyle-related behaviours- a cross-sectional audit of responses from nine hundred and ninety-five participants from India. *Diabet Metab Syndr* 2020 Oct 6;14(6):2021–30.
- [12] Kapasia N, Paul P, Roy A, Saha J, Zaveri A, Mallick R, et al. Impact of lockdown on learning status of undergraduate and postgraduate students during COVID-19 pandemic in West Bengal, India. *Child Youth Serv Res* 2020;116:105194.
- [13] Dubey AD, Tripathi S. Analysing the sentiments towards work-from-home experience during covid-19 pandemic. *J Innovat Manag* 2020;8(1):13–9.

- [14] Kumari A, Ranjan P, Sharma KA, Sahu A, Bharti J, Zangmo R, Bhatla N. Impact of COVID 19 on psychosocial functioning of peripartum women: a qualitative study comprising focus group discussions and in-depth interviews. *Int J Gynaecol Obstet* 2020 Dec 11. <https://doi.org/10.1002/ijgo.13524>.
- [15] Agarwal M, Ranjan P, Mittal A, Baitha U. Use of hydroxychloroquine for pre-exposure prophylaxis in COVID 19: debate and suggested future course. *Expert Rev Anti Infect Ther* 2020 Oct 7:1–5. <https://doi.org/10.1080/14787210.2021.1828062>.
- [16] Agarwal M, Ranjan P, Baitha U, Mittal A. Hydroxychloroquine as a chemoprophylactic agent for COVID-19: a clinico-pharmacological review. *Front Pharmacol* 2020;11:593099. <https://doi.org/10.3389/fphar.2020.593099>.