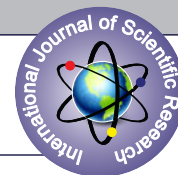


A CROSS SECTIONAL STUDY ON SOCIO-BEHAVIOURAL IMPACT OF COVID-19 AMONG YOUNG ADULTS



Community Medicine

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ABSTRACT

Introduction: COVID-19 is expected to have a significant impact on the socio-behavioural aspect of citizen's lives. The effects are expected to manifest differently in different populations. It is important to understand the changes in lifestyle-related behaviour adjusting to the COVID-19 preventive measures. **Objective:** To assess the socio-behavioural impact of COVID-19 among young professional students. **Methodology:** After obtaining IEC clearance and informed consent from the study subjects, a cross-sectional study was conducted from August 15 to September 15, 2020. Data was collected from 178 young adults (97 Medical and 81 Paramedical students), at Government General Hospital, Kurnool, selected by simple random sampling, using a validated questionnaire from the study done by Kamal bandhu et al., Data was collected and analysed by SPSS. **Results:** A total of 178 participants were included in the study. The mean age of the participants was 20.92 ± 0.88 years. The distribution of participants was 79 males and 99 females. Most had a considerable fear of getting Covid-19 infection (62%). Fear is more common among age group of 19-21 years ($p < 0.05$). A significant association between lower age and female gender was found regarding different sources of information, creating a state of confusion about the pandemic. Experience of home confinement ($p < 0.01$), restriction of social gatherings ($p < 0.01$), and going out ($p < 0.05$) has a significant association with the young age group. Female gender is associated with feelings of social isolation. Decreased intake of junk foods was significantly associated with age, gender, and course of study ($p < 0.05$). **Conclusion:** There is a positive impact on lifestyle modifications and preventive practices due to COVID-19.

KEYWORDS

covid-19, lifestyle, socio-behavioural impact

INTRODUCTION:

A new Coronavirus (SARS-CoV-2) epidemic has spread in China, expanding from the densely populated region of Wuhan since December 2019.¹ From China, the infection spread rapidly across the world. Thus, the World Health Organization declared SARS-CoV-2 a pandemic on 11th March 2020.² A strict lockdown was enforced in India on 24th March 2020 to flatten the curve Covid-19 pandemic.

SARS-CoV-2 can spread from person to person. Therefore, people are requested to follow the COVID-19 prevention protocol, including social and behavioural measures even after getting vaccinated. This COVID-19-appropriate behaviour has led to changes in the lifestyle of the individual and community at large. An increasing number of new cases, deaths, and media misinformation related to Covid-19 have created fear and depression among the general public.³ As lockdown was followed throughout the country, restrictions of movement such as working from home, schooling, restricted play for children, and restricted contact with friends and family have led people to suffer from stress and anxiety.⁴ This stress has led to changes in sleep and eating patterns as well as an increase in substance use. Additionally, uninfected individuals were afraid to have contact with COVID-19-infected individuals. People also suffered a financial threat due to the loss of jobs during this pandemic.

Studies conducted in India have highlighted the problem of these socio-behavioral changes in individuals.⁵ However, these studies have some drawbacks, including a sample size that is not sufficiently representative and a lack of validated tools for data collection. Due to variances in social and cultural constructs among distinct demographic groups, these study results cannot be generalized. It is important to understand the changes in lifestyle-related behaviour adjusting to the COVID-19 preventive measures. Hence the current study was conducted to assess the socio-behavioural impact of COVID-19 among young healthcare professional students.

MATERIALS AND METHODS:

This study was approved by the Institutional Ethics Committee (Letter/ IEC 36/2021 dated 6.8.2021). It was a cross-sectional study conducted at Government General Hospital, Kurnool from August 2021 to September 2021. The study was done among medical and

paramedical students. The study participants were selected through simple random sampling. The sample size arrived at was 178, by using the formula $4pq/l^2$, with 1 as 15 % of prevalence, considering an average prevalence of 50% for the factors under study (33-66.5%) from previous studies. A validated questionnaire from the study done by Kamal bandhu et al., was used in this study. It consists of 5 sections: 1. Fear and anxiety, 2. Household confinement, 3. Lifestyle modifications, 4. Preventive practices and 5. Coping strategies. The participants were informed about the objective, purpose, and benefits of the study. The confidentiality of the participants was assured and informed consent was obtained from the participants before enrolment in the study. Google Forms were used for collecting data.

Statistical Analysis:

The collected data was entered into Excel and analysed using SPSS-26. Graphs and tables were generated using Microsoft Word. All proportions have been expressed as percentages and results were interpreted. If the p-value was less than 0.05, the association between categorical variables was considered significant.

RESULTS:

Sociodemographic profile of study participants:

Out of 178 young adults, majority (80.3%) were between 19 and 21 years old. The mean age was 20.9 ± 0.88 years. 44.4% and 55.6% of participants were males and females respectively. Equal proportions were residing in urban and rural areas.

Fear And Anxiety Due To Pandemic:

Most of the participants had considerable (31.5%) fear of getting COVID-19 infection. 31.4% of them felt that different sources of information created a state of confusion regarding the pandemic. Some participants (23%) avoid reading or listening to COVID-19-related news. Fear of getting COVID-19, and listening to COVID-19 news & messages is avoided among the young age group and was significant ($p < 0.05$). Confusion created by different sources of information about COVID-19 is more common among young age groups and females ($p < 0.05$).

Household Confinement:

The impact of the pandemic on household confinement is presented in

Table 1. Majority (52.8%) had an impact on travel or vacation. Forty percent reported that their family had stopped them from going outside frequently. Experience of home confinement ($p<0.01$), restriction of social gatherings ($p<0.01$), and going out ($p<0.05$) has a significant association with the young age group. The day-to-day interaction with family and friends significantly affected females ($p<0.01$).

Lifestyle Modifications:

The impact of the pandemic on lifestyle modifications is presented in Table 2. It was observed that the intake of healthy food increased during pandemic among 45.5% of individuals. The consumption of junk food has slightly decreased (60.6%). The quality of sleep has been slightly increased among the participants (38.2%). Decreased intake of junk foods was significantly associated with age and gender ($p<0.05$). The physical activity has been significantly improved among Males ($p<0.05$).

Preventive Practices During The Pandemic (Table 3):

They followed the protocols by wearing masks (74.2%), maintaining social distancing (50%) and frequent hand washing (41%). A good number of participants felt comfortable in carrying out these practices such as washing hands (41%) and maintaining social distance (41.6%). 41.6% of participants felt uncomfortable while wearing masks. Females and younger age groups followed the protocols by wearing masks, using sanitizer, and maintaining social distancing ($p<0.05$). Females changed clothes after coming from outside ($p<0.05$).

Coping Strategies:

The impact of COVID-19 on coping strategies is presented in Table 4. 70.7% of the students chose various methods such as watching television or videos, exercising, and communicating with people to distract themselves from thoughts of COVID-19 ($p<0.01$).

Table 1: Household Confinement Due To Pandemic

S. No	Household confinement	Age	Gender
1	Experienced home confinement	$X^2=19.7$ $p<0.01^*$	$X^2=6.9$ $p>0.05$
2	Family members stopped from going outside	$X^2=16.6$ $p<0.05^*$	$X^2=2.38$ $p>0.05$
3	Socially cutoff	$X^2=16.9$ $p<0.05^*$	$X^2=18.84$ $p<0.01^*$
4	Disruptions in day-to-day social interactions	$X^2=7.05$ $p>0.05$	$X^2=18.64$ $p<0.01^*$
5	Inability to attend any Social gatherings	$X^2=20.19$ $p<0.01^*$	$X^2=8.07$ $p>0.05$
6	Impact on religious and spiritual ceremonies	$X^2=9.7$ $p>0.05$	$X^2=2.08$ $p>0.05$
7	Inability to be with close family members and friends	$X^2=13.4$ $p<0.01^*$	$X^2=12.47$ $p<0.01^*$
8	Impact on travel or vacations	$X^2=7.21$ $p>0.05$	$X^2=3.7$ $p>0.05$
9	Inability to meet doctors/ Healthcare professionals	$X^2=10.76$ $p>0.05$	$X^2=6.29$ $p>0.05$

* Significant

Table 2: Lifestyle Modification Due To COVID-19.

S. No	Lifestyle Modifications	Age	Gender
1	Intake of healthy food	$X^2=11.35$ $p>0.05$	$X^2=8.49$ $p>0.05$
2	Intake of fried and junk food	$X^2=36.17$ $p<0.01^*$	$X^2=9.4$ $p<0.05^*$
3	Exercise routine	$X^2=10.91$ $p>0.05$	$X^2=9.57$ $p<0.05^*$
4	Quality of sleep	$X^2=9.9$ $p>0.05$	$X^2=2.3$ $p>0.05$
5	Duration of sleeping hours	$X^2=12.78$ $p<0.05^*$	$X^2=5.08$ $p>0.05$

* Significant

Table 3: Preventive Practices During The Pandemic.

S. No	Preventive practices	Age	Gender
1	Frequency of wearing masks while stepping out of the house	$X^2=16.6$ $p<0.05^*$	$X^2=15.1$ $p>0.05$

2	Frequency of covering mouth and nose by mask or clothes properly	$X^2=7.08$ $p>0.05$	$X^2=3.9$ $p>0.05$
3	Feeling about wearing masks regularly	$X^2=12.78$ $p<0.05^*$	$X^2=12.78$ $p<0.05$
4	Frequency of maintaining social distance of at least 1 m distance with other people	$X^2=15.4$ $p<0.05^*$	$X^2=12.6$ $p<0.05^*$
5	Feeling about maintaining social distance of at least 1 m with other people regularly	$X^2=14.8$ $p<0.05^*$	$X^2=14.2$ $p<0.05^*$
6	Frequency of ensuring frequent hand washing/ sanitizing	$X^2=12.78$ $p<0.05^*$	$X^2=13.1$ $p<0.05^*$
7	While washing your hands frequency of ensuring washing hands for at least 20 s	$X^2=9.24$ $p>0.05$	$X^2=3.5$ $p>0.05$
8	Feeling about frequently washing/ sanitizing hands regularly	$X^2=15.7$ $p<0.05^*$	$X^2=15.7$ $p<0.05^*$
9	Frequency of changing clothes after coming from outside	$X^2=7.981$ $p>0.05$	$X^2=11.41$ $p<0.05^*$

Table 4: Coping Strategies On COVID-19

S. No	Preventive practices	Age	Gender
1	Make efforts to avoid the thoughts of COVID-19	$X^2=8.18$ $p>0.05$	$X^2=5.86$ $p>0.05$
2	What efforts do you make to avoid thoughts of COVID-19	$X^2=40.3$ $p<0.05$	$X^2=34.15$ $p<0.01$

DISCUSSION:

We conducted a cross sectional study on 178 medical and paramedical students to assess the socio-behavioural impact of COVID-19. In this study, 37 % of participants had experienced home confinement ($p<0.01$). However, in a cross-sectional study by Klanidhi KB et al., more than half (53.4%) of the participants had experienced home confinement due to the pandemic and the impact of home confinement decreased as age increased.

The sense of fear was prevalent among the females and age group of 19-21 years. The negative emotions were generally induced by the negative reporting of the situation by social media. Therefore, many people tried avoiding watching and listening to COVID-19-specific news as various information sources created a sense of confusion leading to a state of anxiety. Similar findings were reported in a study conducted in Ecuador by Rodríguez-Hidalgo AJ et al., and Gupta et al., where females and middle-aged people were found to be more afraid of the COVID-19 situation.^[6,7]

Their dietary pattern and physical activity routines were also found to be altered during the pandemic. Consumption of unhealthy food items was found to be reduced which is found to be consistent with the result of the study conducted by Sajid Amit.⁸ The probability of exercise was grossly similar during pandemic in this study. A study done by Sreesupria et al. reported that 37% of study participants spent less than usual time on physical activities.⁹

Sleep is essential because lack of sleep can impair both physical and mental health. Duration of sleeping hours were grossly similar in this study. Approximately, 12 % of the participants had sleeping difficulty due to covid-19 pandemic in a study carried out in India.¹⁰

The fear and anxiety of getting the infection made people follow the preventive practices strictly. Participants were found to obey several protective measures including wearing masks, frequent hand washing, and maintaining social distancing. Similar observations were observed in a study by Avinash Chakravarthy et al.,¹¹ This indicates the increasing concern of study subjects towards personal hygienic measures to avoid COVID-19 infection.

Lack of social interactions such as the inability to attend social gatherings and meet close family members and friends caused a substantial amount of disruption in the lives of the individuals. An analogous finding was reported by Xuehui Sang et al.,¹²

Strengths And Limitations:

The study was conducted using valid and reliable tool. Therefore, the findings can be used by policymakers in the future. There were a few limitations in this study. As the study focuses on young adults, the results cannot be generalized to the entire population. There is a possibility of information bias in this study.

CONCLUSION:

Awareness of COVID-19 infection is necessary, but a continuous stream of information and misinformation can create stress and anxiety among the public. There is a positive impact on lifestyle modifications and preventive practices due to COVID-19. However, there is also a negative impact of social media on the psychological aspect. Policymakers can utilize the findings of the study to minimize the negative impact, to improve the mental well-being of society.

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