



Survey Report on Psychological Impact of COVID-19 Pandemic on Indian Society

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ABSTRACT

Background: The COVID-19 pandemic has led to a complete shut-down of the entire world and the countries are in a 'lockdown' mode. While the lockdown strategy is essential step to curb the exponential rise of COVID-19 cases, then impact of the same on mental health is not well known. The global crisis prevailing in the wake of the spread of COVID-19 has raised several speculations about the impact of the lockdown on the mental health of people.

Aim: This study aimed to evaluate the psychological impact of lockdown due to the COVID-19 pandemic on the general public with an objective to assess the prevalence of depression, anxiety, perceived stress, well-being, and other psychological disorders and mental health-related problem. This study was conducted to develop and validate a questionnaire to assess changes in individuals' lifestyle-related behavior during the COVID-19 pandemic.

Materials and Method: The development of this questionnaire was carried out systematically by following main steps: literature review, focus group discussions (FGDs), expert evaluation, and pre-testing summarized in data. It is an online and offline survey, done by Whatsapp, Google form, and by direct interact to people of Indian society.

Result: During the survey, a total of 321 responses were collected and responses were analyzed. About 16.5% had anxiety and 14 % of the participants had depression. About 60% had psychoticism while once or several times during the pandemic and 53% suffered from OCD which is not a small count. Overall, 30.5% of the participants had either anxiety or depression. Moderate level of stress was reported by about three-fourths (74.1%) of the participants and 81.3% reported with effected life style during pandemic.

Keywords: Mental health, Coronavirus, Depression, Anxiety, Social dysfunction, Psychology.

1. INTRODUCTION

COVID-19 pandemic has led to a complete shut-down of the entire world and almost all the countries. While the lockdown strategy is an essential step to curb the exponential rise of COVID-19 cases, the impact of the same on mental health and social changes is not studied well at that time. This study aimed to evaluate the neurological and psychological impact of lockdown due to the COVID-19 pandemic on the general public of INDIA, to assess the prevalence of depression, anxiety, perceived stress, well-being, and other social and psychological issues. It was both an offline-online survey conducted under the aegis of the School of Studies in Pharmaceutical Sciences, JIWAJI UNIVERSITY, Gwalior. Using the Survey on the google form platform, a survey link was circulated using WhatsApp, Facebook, Instagram, and other social media. The survey questionnaire included the perceived Stress Scale, Patient Health Questionnaire, Generalized Anxiety Disorder, OCD, Social, and Mental Well-being Scale to assess perceived stress, anxiety, depression, etc. This is a 3-week survey on academic students, employees, housewives, and unemployed people. "Lockdown" is an emergency protocol that prevents the public from moving from one area to the other. Complete lockdown further means that persons should stay where they are currently and no entry/exit movements would be allowed further. It can be both a preventive and an emergency strategy to save the lives of vulnerable or at-risk persons. In this scenario, all educational institutions, shopping arcades, factories, offices, local markets, transport vehicles, airports, railways, metros, and buses are completely shut down except hospitals, police stations, emergency services like the fire station, petrol pumps, etc., and groceries are closed. Coronavirus Disease 2019 (Covid-19) may result in **neuromuscular disorders** or damage to nerves outside the brain and spinal cord, leading to weakness, numbness, and pain. Published literature has stated that SARS- COV-1 may infect the central nervous system and due to its similarities to SARS-COV-2, we suspect that SARS-COV-2 has the same potential. We conclude that Covid-19 has neurological manifestations. Further research should be done in this field to understand the full extent of this virus(9,10) It is well known that quarantine/isolation for any cause and in the context of a pandemic (Severe Acute Respiratory Distress Syndrome, 2003) has been associated with significant **mental health problems and psychological** issues ranging from anxiety, fear, depressive symptoms, sense of loneliness, sleep disturbances, anger, etc., in the immediate few days of isolation, and later with symptoms of posttraumatic stress disorder and depression after discharge from the hospital (1)

Neurological symptoms of SARS-CoV-1 Towards the end of 2002 a coronavirus disease emerged in China, similar to SARS-CoV-2, and spread throughout parts of Asia. The virus was named SARS-CoV, now denoted as SARS-CoV-1. SARS-CoV-1 has a high mortality rate in patients older than the age of 65, at approximately

50%. (2) A limited amount of published literature has surfaced regarding the neurological complications of SARS-CoV-1. It has been reported that these complications appear 2-3 weeks into the course of the illness. The neurological complications include but are not limited to axonal peripheral neuropathy and myopathy. (2)

Social isolation for extended periods can lead to boredom and stress which may further subject individuals to develop a greater tendency of overeating especially “comfort foods” which are usually high in calories [3,4]. Moreover, prolonged confinement at home may induce an increased screen time and reduced outdoor time thus, augmenting sedentarism [5]. Apart from this, being homebound and facing disruptions in daily routines may affect the sleeping patterns as well as the quality of sleep [6]. Lifestyle plays a crucial role in the development and management of type 2 diabetes mellitus (T2DM) [7]. This pandemic might take a long time to subside and its lasting impact on the individuals’ lifestyle-related behavior including diet, physical activity, and sleep patterns is bound to be significant [8]. Physicians must study the impact of COVID-19 on lifestyle-related behavior among the population. Coronavirus disease 2019 (COVID-19), the highly contagious viral illness caused by severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), has had a catastrophic effect on the world’s demographics resulting in more than 6 million deaths worldwide as of March 2022, emerging as the most consequential global health crisis since the era of the influenza pandemic of 1918. After the first cases of this predominantly respiratory viral illness were first reported in Wuhan, Hubei Province, China, in late December 2019, SARS-CoV-2 rapidly disseminated across the world in a short period, compelling the World Health Organization (WHO) to declare it as a global pandemic on March 11, 2020. Since being declared a global pandemic, COVID-19 has ravaged many countries worldwide and has overwhelmed many healthcare systems. The pandemic has also resulted in the loss of livelihoods due to prolonged shutdowns, which have had a rippling effect on the global economy. (11) Even though substantial progress in clinical research has led to a better understanding of SARS-CoV-2 and the management of COVID-19, limiting the continuing spread of this virus and its variants has become an issue of increasing concern, as SARS-CoV-2 continues to wreak havoc across the world, with many countries enduring a second or third wave of outbreaks of this viral illness attributed mainly due to the emergence of mutant variants of the virus. (12) Like other RNA viruses, SARS-CoV-2, while adapting to their new human hosts, is prone to genetic evolution with the development of mutations over time, resulting in mutant variants that may have different characteristics than its ancestral strains. Several variants of SARS-CoV-2 have been described during this pandemic, among which only a few are considered variants of concern (VOCs) by the WHO, given their impact on global public health. Based on the recent epidemiological update by the WHO, as of December 11, 2021, five SARS-CoV-2 VOCs have been identified since the beginning of the pandemic:

- **Alpha (B.1.1.7):** the first variant of concern was described in the United Kingdom (UK) in late December 2020
- **Beta (B.1.351):** first reported in South Africa in December 2020
- **Gamma(P.1):** first reported in Brazil in early January 2021
- **Delta (B.1.617.2):** first reported in India in December 2020
- **Omicron (B.1.1.529):** first reported in South Africa in November 2021

1.1 SARS-CoV-2 Variants of Interest (VOIs)

VOIs are defined as variants with specific genetic markers that have been associated with changes that may cause enhanced transmissibility or virulence, reduction in neutralization by antibodies obtained through natural infection or vaccination, the ability to evade detection, or a decrease in the effectiveness of therapeutics or vaccination. So far since the beginning of the pandemic, WHO has described eight variants of interest (VOIs), namely **Epsilon** (B.1.427 and B.1.429); **Zeta** (P.2); **Eta** (B.1.525); **Theta** (P.3); **Iota** (B.1.526); **Kappa** (B.1.617.1); **Lambda** (C.37) and **Mu** (B.1.621) (13)

1.2 Transmission of SARS-CoV-2

- The primary mode of transmission of SARS-CoV-2 is via exposure to respiratory droplets carrying the infectious virus from close contact or droplet transmission from presymptomatic, asymptomatic, or symptomatic individuals harboring the virus.
- Airborne transmission with aerosol-generating procedures has also been implicated in the spread of COVID-19. However, data implicating airborne transmission of SARS-CoV-2 in the absence of aerosol-generating procedures are emerging and being evaluated. However, this mode of transmission has not been universally acknowledged.
- Fomite transmission from contamination of inanimate surfaces with SARS-CoV-2 has been well characterized based on many studies reporting the viability of SARS-CoV-2 on various porous and nonporous surfaces.
- Under experimental conditions, SARS-CoV-2 was noted to be stable on stainless steel and plastic surfaces compared to copper and cardboard surfaces, with the viable virus being detected up to 72 hours after inoculating the surfaces with the virus.[14]
- Viable virus was isolated for up to 28 days at 20 degrees C from nonporous surfaces such as glass and stainless steel. Conversely, recovery of SARS-CoV-2 on porous materials was reduced compared with nonporous surfaces.[15]
- A study evaluating the duration of the viability of the virus on objects and surfaces showed that SARS-CoV-2 can be found on plastic and stainless steel for up to 2-3 days, cardboard for up to 1 day, copper for up to 4 hours. Moreover, it seems that contamination was higher in intensive care units (ICUs) than in general wards, and SARS-CoV-2 can be found on floors, computer mice, trash cans, and sickbed handrails

as well as in the air up to 4 meters from patients implicating nosocomial transmission as well in addition to fomite transmission.[16]

- The Centers for Disease Control and Prevention (CDC) recently released an update stating that individuals can be infected with SARS-CoV-2 via contact with surfaces contaminated by the virus, but the risk is low and is not the main route of transmission of this virus.
- Epidemiologic data from several case studies have reported that patients with SARS-CoV-2 infection have the live virus present in feces implying possible fecal-oral transmission.[17]
- A meta-analysis that included 936 neonates from mothers with COVID-19 showed vertical transmission is possible but occurs in a minority of cases.[18]

1.3 What treatments do people receive if they have COVID-19?

Treatments for COVID-19 vary depending on the severity of your symptoms. If you're not in the hospital or don't need supplemental oxygen, no specific antiviral or immunotherapy is recommended.

Depending on the severity of your COVID symptoms, you may need:

- Supplemental oxygen (given through tubing inserted into your nostrils).
- Some people may benefit from an infusion of monoclonal antibodies.
- Antiviral medications may reduce the risk of hospitalization and death in certain patients with COVID Mechanical ventilation (oxygen through a tube inserted down your trachea). You are given medications to keep you comfortable and sleepy as long as you're receiving oxygen through a ventilator.
- Extracorporeal membrane oxygenation (ECMO). You continue to receive treatment while a machine pumps your blood outside your body. It takes over the function of your body's lungs and heart.

1.4 Use of Antiviral Drugs Against SARS-CoV-2

The antiviral agents are mainly those used in the case of HIV/AIDS, these being Lopinavir and Ritonavir. Other agents such as nucleoside analogs like Favipiravir, Ribavirin, Remdesivir, and Galidesivir have been tested for possible activity in the prevention of viral RNA synthesis (19). Among these drugs, Lopinavir, Ritonavir, and Remdesivir are listed in the Solidarity trial by the WHO.

Remdesivir is a nucleotide analog for adenosine that gets incorporated into the viral RNA, hindering its replication and causing chain termination. This agent was originally developed for Ebola Virus Disease (20). A study was conducted with rhesus macaques infected with SARS-CoV-2 (21). In that study, after 12 h of infection, the monkeys were treated with either Remdesivir or vehicle. The drug showed good distribution in the lungs, and the animals treated with the drug showed a better clinical score than the vehicle group. The radiological findings of the study also indicated that the animals treated with Remdesivir have less lung damage. There was a reduction in viral replication but not in virus shedding. Furthermore, there were no mutations found in the RNA polymerase sequences. A randomized clinical control study that became available in late April 2020 (22), having 158 on the Remdesivir Arm and 79 on the placebo arm, found that Remdesivir reduced the time to recovery in the Remdesivir-treated arm to 11 days, while the placebo-arm recovery time was 15 days. Though this was not found to be statistically significant, the agent provided a basis for further studies. The 28-days mortality was found to be similar for both groups. This has now provided us with a basis on which to develop future molecules. The study has been supported by the National Institute of Health, USA. The authors of the study advocated for more clinical trials with Remdesivir with a larger population. Such larger studies are already in progress, and their results are awaited. Remdesivir is currently one of the drugs that hold the most promise against COVID-19. An early trial in China with Lopinavir and Ritonavir showed no benefit compared with standard clinical care (23). More studies with this drug are currently underway, including one in India (24,25).

1.5 Socio-Economic Impact

During the SARS epidemic, China faced an economic setback, and experts were unsure if any recovery would be made. However, the global and domestic situation was then in China's favour, as it had a lower debt, allowing it to make a speedy recovery. This is not the case now. Global experts have a pessimistic outlook on the outcome of this outbreak (25). The fear of COVID-19 disease, lack of proper understanding of the dangers of the virus, and the misinformation spread on social media (27) has a breakdown of the economic flow globally (26). An example of this is Indonesia, where a great amount of fear was expressed in responses to a survey when the nation was still free of COVID-19 (24). The pandemic has resulted in over 2.6 billion people being put under lockdown. This lockdown and the cancellation of the lunar year celebration have affected business at the local level. Hundreds of flights have been cancelled, and tourism globally has been affected. Japan and Indonesia are estimated to lose over 2.44 billion dollars due to this Workers are not able to work in factories, transportation in all forms is restricted, and goods are not produced or moved. The transport of finished products and raw materials out of China is low. The Economist has published US stock market details indicating that companies in the US that have Chinese roots fell, on average, 5 points on the stock market as compared to the S&P 500 index. Companies such as Starbucks have had to close over 4,000

Tech and pharma companies are at higher risk since they rely on China for the supply of raw materials and active pharmaceutical ingredients. Paracetamol, for one, has reported a price increase of over 40% in India (22,26). Mass hysteria in the market has caused the selling of shares of these companies, causing a tumble in the

Indian stock market. Though long-term investors will not be significantly affected, short-term traders will find themselves in soup. Politically, however, this has further bolstered support for world leaders in countries such as India, Germany, and the UK, who are achieving good approval ratings, with citizens being satisfied with the government's approach. In contrast, the ratings of US President Donald Trump have dropped due to the COVID-19 pandemic being handled. These minor impacts may be of temporary significance, and the worst and most impactful will be on China itself (25-25), as the looming trade war with the USA had and Asian markets. The longer production of goods continues to remain suspended, the more adversely it will affect the Chinese economy and the global markets dependent on it (26). If this disease is not contained, more and more lockdowns by multiple nations will severely affect the economy and lead to many social complications.

1.6 The spread and impact of COVID-19 in India

To date, as per the Health Ministry, COVID-19 has affected the male population more than the female population, in India. Indian men account for almost three-fifths assessed recorded till May end. This, however, does not necessarily mean that men are more susceptible to the virus than women. It may be a function of the level of exposure to the virus. Of the 1,82,143 confirmed cases of COVID-19 recorded in India till 31st May, men constituted 67.11%, women constituted 32.88% and the third sex accounted for the remaining cases. The age group of 20-39 recorded the largest number of cases, at 43.15% (44.02% of all affected males,

41.39% of all affected are female and 23.08% of all affected third sex). Next, 17.15% fell in the 40-49 category (18.01% of all affected males, 15.39% of all affected females, and 30.77% of all affected third sex), and 14.99% (15.09% of all affected males, 14.79% of all affected female and 23.08% of all affected third sex) within the 50-59 category. This section of the population, between 20 and 59, collectively accounted for 75.29 of COVID-19 cases. The age group above 60 years accounted for a further 14.74% (13.86% of all affected males, 16.55% of all affected females, and 7.69% of all affected third sex) of total cases. The remaining 9 of .97% of cases (9.02% of all affect males 11.90% of all affected females and 5.38% of all affected third sex) were below 20 years of age group. (27)

Similar gendered trends are observed in the pattern of mortality in the country. As of 31st May, of the total 5,164 deaths in India, men constituted almost 66.13% (two-thirds) and women constituted 33.87% of deaths till May end. Higher mortality rates were recorded in the older population. Of the total deaths recorded in India till May end, the age group of 50-69 recorded the largest number of deaths, at 54.09% (54.23% of all males and 53.84% of all females have died). Next, 21.93% fell in the above 70 years category (21.87% of all males and 22.04% of all females have died), and 13.84% (14.13% of all males and 13.27% of all females who have died) fell within the 40-49 category. The age group 30-39 accounted for a further 6.14% (6.53% of all males and 3.7% of all females who have died) and the remaining 4.01% (3.25% of all males and 5.48% of females) are in the below 30 years age group. (27)

2. METHODOLOGY & QUESTIONNAIRE

A standardized methodology including steps such as literature review, focus group discussion, expert review, pre-testing, and validation was undertaken to develop and validate the questionnaire [9,10]. Ethical approval was obtained from the Institutional and informed consent was obtained from all participants

2.1 Phase 1: Development of the Questionnaire

The development of this questionnaire was carried out systematically by following main steps: literature review, focus group discussions (FGDs), expert evaluation, and pre-testing summarized in data. Literature review: A comprehensive literature review using search engines like Google Scholar and PubMed was done to have a wider view of the existing evidence on the impact of COVID on lifestyle-related behaviors (eating, activity, and sleep) amongst people. Keywords such as "coronavirus", "COVID19" "questionnaire and surveys", "diet", "eating behavior", "exercise and physical activity", "sleep", "lifestyle behavior", and "Psychological disorders" were included in the search. This resulted in 10-12 related articles. Further screening of the titles, abstracts, and full-texts 3 articles was found to be relevant. Questions were identified from these relevant articles and 52 question items were generated. Focused Group Discussion (FGD): The FGDs were carried out with two groups – the general public and experts from different fields of academics, medicine, nutrition, exercise physiology, clinical psychology, and psychological experts to comprehend how they perceive the topic of interest. The survey was conducted in three sessions, in **18 days starting from 2nd MAY 2022 to 19th MAY 2022 involving 321 participants**. The FGDs include the faculty members of Pharmacy Departments and students of dept. were carried out through continuous meetings, discussions, online video calls, and conference calls. Each FGD session was continued till the saturation of themes and lasted for about 25,920 mins which are approximately about 432 hours of study. Open-ended questions were asked in a sequenced manner. The discussion was transcribed word by word and analyzed qualitatively. As a result of the extensive literature review and FGDs, the focus was laid on ensuring that the items were kept in appropriate sequence without any overlapping. The questions were constructed in simple English language to be easily understood by the participants, avoiding double negatives. The survey is shared by both online and offline participants with A4- a point Likert scale and social media was used as a response option under each of the 30 items, assuming equal distance between response objects. Expert evaluation for face and content validity of the questionnaire: The developed questionnaire was subjected to evaluation by a team of 4 members from the same pharma-medical fields for their inputs, critical appraisal, and content validation. We assessed participants' perception and acceptability of the tool. The participants were asked to fill in the questionnaire and comment on the

necessity, clarity, and relevance of each item. 15 items were eliminated while 7 items were modified according to the recommendations. This led to the generation of 30 items under the final questionnaire.

2.2 Phase 2: Validation of the questionnaire

In this phase, a survey was conducted to validate the questionnaire. The questionnaire was administered to 321 individuals with different AGE GROUPS, including 1-18 years, 19-25 years, 26-35 years, and 35 years above who were able to read and write and respond to an online web-based survey and printed hardcopy questionnaire. The investigator recruited participants in different demographic strata such as age, gender, and socioeconomic status given fulfilling maximum diversity. The hand-filled Survey papers are collected on 19th MAY 2022. A google form was prepared and online data was collected on 21st MAY 2022.

2.3 Phase 3: Statistical analysis

As reported earlier, content validity and face validity of the developed questionnaire was established through FGDs, expert evaluation, and pretesting. For construct validity, we carried out exploratory factor analysis with varimax rotation to test the domain structure [10]. After performing construct validity, we used Microsoft Excel, Microsoft PowerPoint, and PI-BI GRAPHS AND DATA CALCULATOR a coefficient to measure the reliability of our questionnaire. A coefficient of higher is preferred for a questionnaire to be internally consistent [11]. The data were analyzed using IBM SPSS Statistics 24 software, Microsoft Excel & PI-BI GRAPHS.

This is the same format we also used in google forms. Here, we select 30 questions with different options and at last, we leave the box with an open invitation of the thoughts and personal good and bad experiences of their lives in the COVID-19 Pandemic



Organizing Members

Harshita Ghanghoriya
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Ashish Kumar
Sachin Jain

B. Pharma VIII Sem

COVID-19 PANDEMIC SURVEY SOCIAL AND PSYCHOLOGICAL IMPACT OF COVID-19
YOUR DETAILS: PLEASE FILL IT CLEARLY

NAME		SEX	<input type="checkbox"/> MALE <input type="checkbox"/> FEMALE <input type="checkbox"/> OTHERS
YOUR AGE GROUP	<input type="checkbox"/> 1-18 Years <input type="checkbox"/> 19-25 Years <input type="checkbox"/> 26-35 Years <input type="checkbox"/> 35 - Above	Your Occupation	<input type="checkbox"/> Student <input type="checkbox"/> Employed <input type="checkbox"/> Unemployed <input type="checkbox"/> Housewife

THE QUESTIONNAIRE REPRESENTATION TO UNDERSTAND THE TYPE OF QUESTIONS WE ASKED

Hello, we are Bachelor of Pharmacy student at the School of Studies in Pharmaceutical Sciences, JIWA UNIVERSITY(Gwalior). We are conducting a survey study on the Psychological and Social Impact of COVID-19 Pandemic and We would like to know your experiences with the signs, symptoms, and treatment of communicable diseases. Please complete this 10-minute survey. Your responses are anonymous and you can skip any questions you are not comfortable with. Thank you for your participation and giving your to fill this survey . we truly value the information you have provided.

S. No	Questions	Pick One from below			
1)	Did you suffer from corona infection or had symptoms of COVID-19?	Yes	No	Mild Symptoms	Severe Condition

2)	How was your experience during COVID-19 Quarantine (Isolation period of 14 days)?	Its stress-full for me	It's hard to manage	It's an average condition	Its normal for me
3)	How you rate effect of COVID-19 Pandemic on your life-style?	Totally effected	Only social life effected	Personal life effected	Not at all effected
4)	How do you perceive the risk of changes in your personal life and the condition of social isolation impose during the period of Pandemic COVID- 19?	Totally effected	Metal peace effected	Socially effected	No effect at all
5)	Rate your mental stress parameter during Pandemic COVID-19?	Depression	Highly Stress	Normal Stress	No stress
6)	How do you observe the chances of risk of contagion (infection) during this period of Covid- 19 Pandemic?	More than 90%	80 - 60 %	50 -30 %	Less than 20%
7)	Do you observe any behavioural problems or changes?	Close ones	Relative	Neighbours	Friends
8)	Do you observe the behavioral problems in yourself during COVID-19?	Mood change	Stress	Anxiety	No-change
9)	Do you feel Psychoticism (AntiSocial Behavior, fear of meeting people and gathering, anxiety and stress)	Yes	No	Sometime	Only once
10)	Do you suffer with OCD (obsessive compulsive disorder) (washing your hands again and again, so much sanitization, cleaning and washing unnecessarily)?	Yes	No	Several times	Only once
11)	Do you feel interpersonal sensitivity changes in your emotions and feelings?	Before covid	During covid	After covid	No change
12)	Do you have psychological issues during pandemic?	Insomnia (Lack of sleep)	Mania (Excitement)	Depression	Only stress
13)	Rate your experience spending a lot of time with family members?	Its very special	Its nice experience	Its average experience	Not so good
14)	Are you now more conscious about the things which were take for granted previously?	Specially nutritional health related	Physical work out related	Mental health related	Social and personal care related
15)	Have you experienced death of any close friend or family member due to COVID-19 infection?	Yes	No	Relatives/ friends	Family members

16)	What do you think about effect of religious serials like Ramayana and Mahabharata during lockdown?	Psychologically very effective	partly effective	I also used phrases of Ramayana and Mahabharata	NO effect observed
17)	Does the world survey report and the numbers of infected or death count affect your mental health?	Yes, it scares me	A stress condition occurs	Not at all	I become more conscious
18)	Did you feel difficulties in transitioning from office work to work from home?	Yes, it's hard for me	No, its okay for me	It's a nice experience	Worst experience for me
19)	How you experience the financial crisis and mental stress managing the household budget balance during covid-19 pandemic?	Hard	Good	Average	Poor
20)	What mind set you experience during the COVID-19 Pandemic?	Excited	Mood Swings	Hard To Handle Things	No specific
21)	Rate your Psychological parameter you face during the COVID - 19 Pandemic?	10-8	7-6	5-4	Below 4
22)	How do you perceive the relationships with your colleagues during this period of COVID-19?	Good	Okay	Average	Force
23)	How do you perceive your learning academic studying problems during COVID-19 Pandemic?	New exciting experience	Didn't understand course well	Too difficult Manage studies	Easy and fine experience
24)	Do you think that COVID-19 effect your career options, future plans and dreams?	Yes	No	Totally	Partly
25)	Which type of treatment you prefer most?	Ayurveda	Allopathy	Homeopathy	Naturopathy
26)	Do you give any services to the society to fight against COVID-19 Pandemic?	In sanitization	In food services	Online helping groups	Working with government
27)	Are you still in the situation where you feel the fear to face society?	Socially facing fear	Sometime in a month	Once in a month	Not at all
28)	After covid-19 do you feel now you are healthy and happy with your life?	Agree	Disagree	Satisfactory	Still working
29)	Do you have fear of fourth wave?	Yes	No	Little fear	Fearless
30)	What are your safety plans for future?	Yes, I have executed already	Have plan in my mind	plans yet	Not so worried about plans

4.RESULTS AND DISCUSSION

4.1 Socio-demographic profile of study participants

A total of 321 adults, with 203 males, 116 females, and 2 transgenders participated in the survey (Table 1)

GENDER	FREQUENCY /COUNTS	PERCENTAGE %
Male	203	63.21%
Female	116	36.13%
Other (Transgender)	2	00.62%
OCCUPATIONAL DATA		
Occupation	frequency	Percentage %
Student	217	13.3%
Employed	70	57.9%
Unemployed	13	4.04%
Housewife	20	6.23%

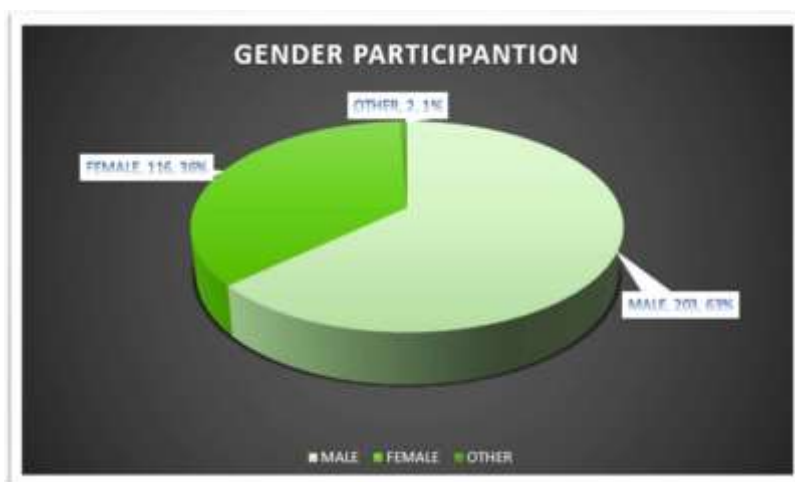
TABLE 1 : Sociodemographic details of Participants

4.2 Descriptive statistics of survey results:

In Our questionnaire were designed to assess if there were changes in lifestyle-related behavior of people before COVID and during the COVID pandemic. We found that approximately three-fourths of the participants reported either an increased or a similar intake of main meals, snacking between meals, portions of meals/snacks, and a balanced diet including whole wheat, pulses, legumes, eggs, nuts, fruits, and vegetables. On the other hand, the overall intake of fast food/junk food/fried food, sugarsweetened beverages, sweets, and chocolates is either similar or decreased, however, the intake of unhealthy foods out of boredom or stress is a bit increased by around 20% of the participants. Nearly 50% of the participants reported an increased intake of immunityboosting foods during the COVID period. They also reported increased family support for healthy eating and increased interest in learning healthy eating tips.

4.3 The gender participation in the survey report

The gender participation ratio of males and females is very important in the survey data study reports because it's the mirror of the society's gender ratio in the population. the educational institutional studies always focus on gender participation because it is necessary to make it easier understandable and comparative studies of men's and women's counts. Here you can read the total of 321 participants with counts of 116 females, 203 males, and 2 transgender means others. The percentage ratio of the males stands at 63% and females at only 36%, others with 2% of the total percentile data.



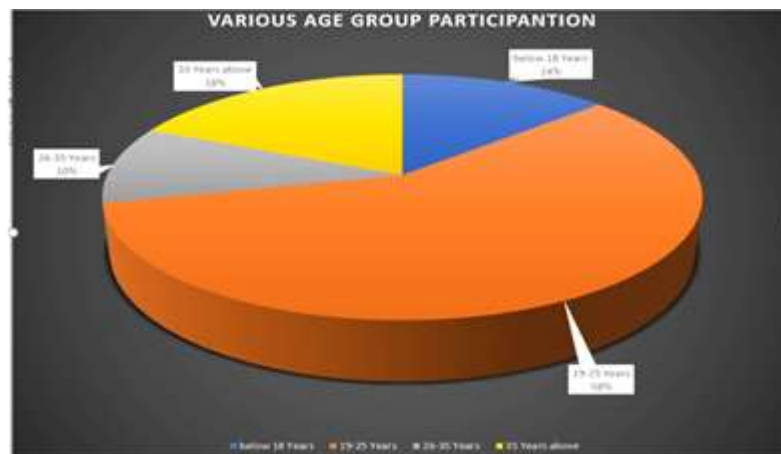
Graph No 1: The gender participation in the survey report

a TABULAR REPRESENTATION OF THE GENDER DATA IN THE COVID -19 PANDEMIC SURVEY:

GENDER	COUNTS	PERCENTAGE
MALE	203	63%
FEMALE	116	36%
TRANSGENDER (OTHER)	2	1%

4.4 VARIOUS AGE GROUPS PARTICIPATING IN THE COVID-19 SURVEY

It's important to study the age groups to observe and learn about the minor details which can further help to understand the psychology of the children and aged people. As we want to study the effect of a pandemic on the various age group that's why the various age group participation study data represents in the 3-D pie chart with percentages.



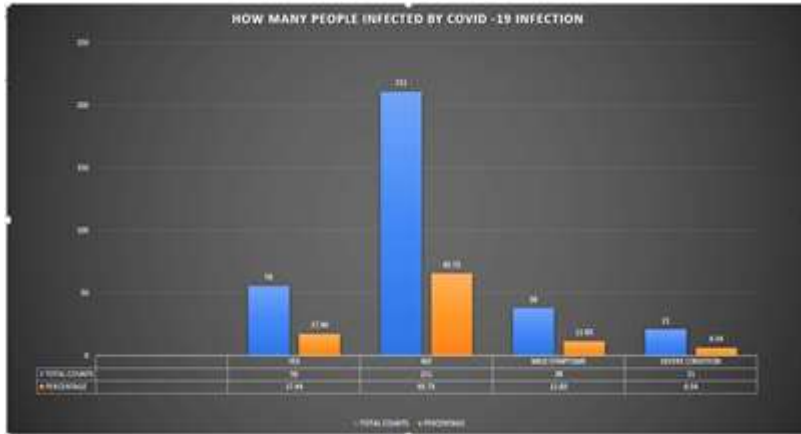
Graph No 2: Various age group participating in the Covid-19 survey

B TABULAR REPRESENTATION OF THE AGE GROUP PARTICIPATION DATA IN THE COVID -19 PANDEMIC SURVEY:

4.5 COVID-19 INFECTION RATE DATA IN PANDEMIC SURVEY

AGE GROUP	COUNTS	PERCENTAGE %
Below 18 Years	43	13.3%
19-25 Years	186	57.9%
26-35 Years	33	10.2%
35 Years Above	59	18.3%

COVID – 19 infection rate make a condition hazardous to all of us. The death counts, and patient infections day by day increase and make to develop a condition of threat in the local people. When we study the survey reports of the government which means to be said as the infection rate of SARS – COV-2 is the total count of cases to date is 4.32crore whereas the death rate is 5.25lakh. We observe in our survey that out of a total of 321 participants who filled our questionnaire 211 means 65.73% tick on NO, they are not infected with the corona infection. A percentage of 17.44% with a count of 56 people are infected with SARS-COV-2 corona infection. 11.83% a count of 38 participants infected with the mild symptoms like cough, cold, loss of taste and smell & 6.54% count with 21 are having ICU, Ventilator, pulse oximeter, oxygen support, and hospital experience.



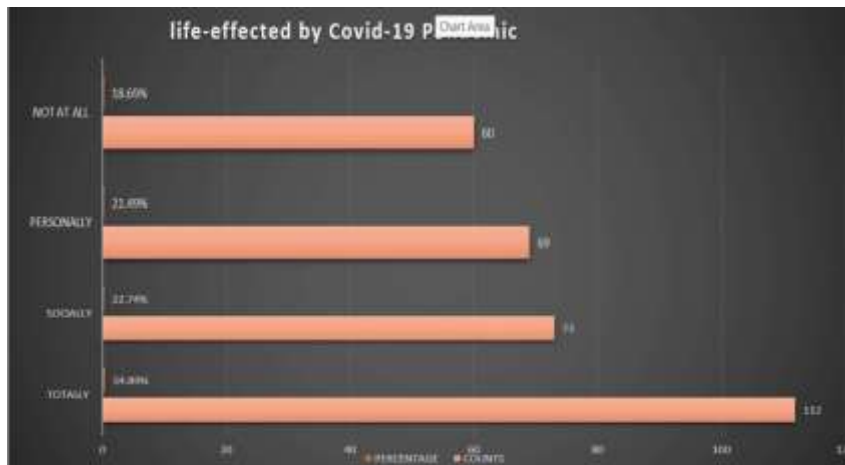
Graph No3:- How many people infected by Covid-19 infection

C TABULAR REPRESENTATION OF INFECTION RATE DATA IN THE COVID -19 PANDEMIC SURVEY:

OPTIONS	COUNTS	PERCENTAGE %
YES	56	17.44%
NO	211	65.73%
MILD SYMPTOMS	38	11.83%
SEVERE CONDITION	21	6.54%

4.6 LIFE EFFECTED BY COVID-19 INFECTION DATA IN PANDEMIC SURVEY

This pandemic has affected thousands of people, who are either sick or are being killed due to the spread of this disease. The most common symptoms of this viral infection are fever, cold, cough, bone pain, and breathing problems, ultimately leading to pneumonia. How do people experience changes in their social life, and personal life, affecting their source of income and various health issues.



Graph No 4: Life effected by Covid-19 Pandemic

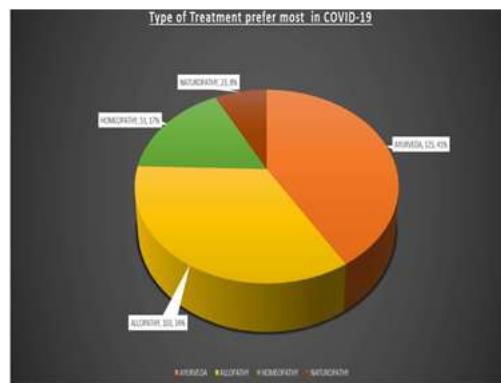
D TABULAR REPRESENTATION OF LIFE AFFECTED IN THE COVID -19 PANDEMIC SURVEY:

OPTIONS	COUNTS	PERCENTAGE %
Effected	112	34.89%
Socially Effected	73	22.74%
Personal Life Effected	69	21.49%
Not At All	60	18.69%

4.7 TYPE OF TREATMENT PREFER MOST IN COVID-19 PANDEMIC SURVEY

To fight against a covid different type of treatments is used like Ayurveda, homeopathy, naturopathy, and allopathy. Corona infection has simple symptoms like cold, cough, and loss of taste and smell. The Indian society has the psychology of primary treatment at home for any disease or simple disorder. Ayurveda is the oldest treatment therapy used by the Indian peoples. It shows in our data report about 41% of 125 participants count prefer the ayurvedic treatment most by using kadha, churana, paste, liquid herbal tea, chawanprayash, and many more home remedies. In mild symptoms, ayurvedic herbs used Ginger Root, *Gojihvaadi Kashaya*, *Pippali Rasayana*, *Sanjeevani Vati*, *C. vati*, and *Solanum surattense*. People also apply yoga and meditation and naturopathy treatment with counts of 23, 8%. Homeopathy is not so popular but still, we found that 17% of people prefer homeopathic treatment for covid-19 ALLOPATHY is the most effective and emerging way of treatment and one should support it for perfect and lenient treatment. The treatment of COVID-19 included the oral dosage of chloroquine (500 mg) and hydroxychloroquine (400 mg) on daily basis in wave-1. some other medications such as **Remdesivir**, **steroids**, **tocilizumab**, **favipiravir**, amoxicillin, azithromycin, limcee, **and ivermectin** are drugs widely used currently to treat COVID-19 infection.

Preventive measures include physical or social distancing, quarantining, ventilation of indoor spaces, covering coughs and sneezes, hand washing, and keeping unwashed hands away from the face. The use of face masks or coverings has been recommended in public settings to minimize the risk of transmissions.



Graph No.5: Type of treatment prefer most in the covid-19 pandemic

Type Of Treatment	COUNTS	PERCENTAGE %
Ayurveda	125	41%
Allopathy	103	34%
Homeopathy	51	17%
Naturopathy	23	8%

E TABULAR REPRESENTATION OF TYPE OF TREATMENT PREFER MOST IN THE COVID 19 PANDEMIC SURVEY

4.8 BEHAVIORAL PROBLEMS OBSERVED IN COVID-19 PANDEMIC SURVEY

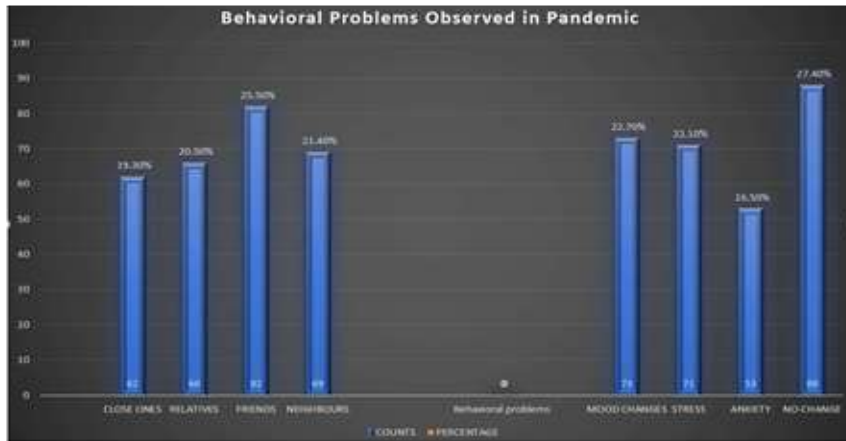
In the covid-19 pandemic, people observed the behavioral changes in society as well as in themselves too, as we know corona lockdown affects the psychology and the way of living including all the economic and well-being routine of life. People lose their friends, family, close ones, neighbors, and also normal chit-chat friends. The survey data observed that the behavioral changes observed in their friends are with the highest frequency of 25.50% and whereas the changes observed in close ones and relatives are at 19.30% and 20.50%. Percentage with 21.40% observed in neighbors behavior like avoiding, ignoring and gathering are completely packed because of a covid pandemic. Participants answered questionnaires about sociodemographic data, housing conditions, immediate psychological responses during quarantine (e.g., anxiety, mood, sleep, and behavioral alterations), patterns of use of screens, daily physical activity, and sleep hours before and during the quarantine. The results revealed an increase in various age groups' psychological and behavioral symptoms, increased screen-time, reduced physical activity, and more sleep hours/night. We study age groups below 18 years are concluded that the most frequent psychological and behavioural problems included clinginess, distraction, irritability, and fear of asking questions about the outbreak.

Children and young people (38%) say they are feeling sad and fearful, with 12% the end up continuously feeling sad and fearful and may be at risk of developing mental health disorders, such as depression and

We observed mood swings are an issue for 22.7% of total participants and stress an issue for 20.21% of the total count from 321 people and anxiety is a problematic issue for 16.5% which can't be considered small whereas 27.4% said they didn't observe any behavioral issues.

Stress is a **feeling of emotional or physical tension**. It can come from any event or thought that makes you feel frustrated, angry, or nervous. Stress is your body's reaction to a challenge or demand. In short bursts, stress can be positive, such as when it helps you avoid danger or meet a deadline.

Whereas anxiety is an uncomfortable feeling of nervousness or worries about something that is happening or might happen in the future. The psychological issue affects one's health. Here the data represents real counts and percentages.



Graph No 6: Behavioural problem observed in pandemic

TABULAR REPRESENTATION OF BEHAVIORAL PROBLEMS OBSERVED IN THE COVID

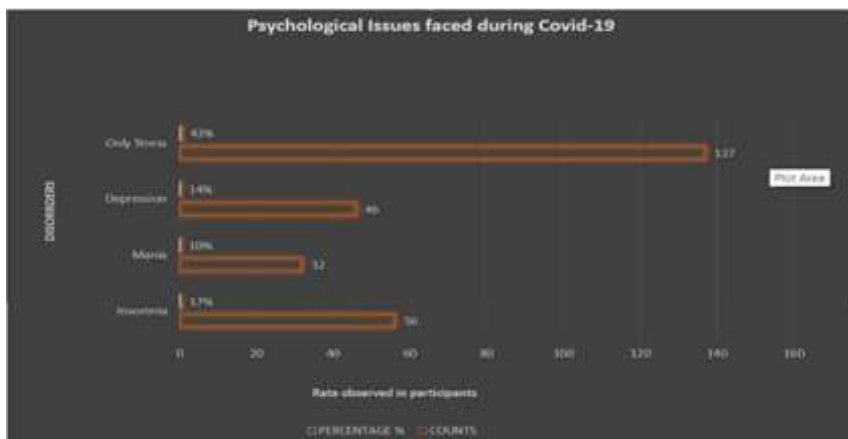
4.9 PSYCHOLOGICAL ISSUES FACED DURING COVID-19 PANDEMIC

Behavioral changes observed by the participants in the society		
OBSERVED IN OTHERS	COUNTS	PERCENTAGE%
Close Ones	62	19.30%
Relatives	66	20.50%
Friends	82	25.50%
Neighbors	69	21.40%
Behavioral changes observed by the participants in themselves		
Mood Swings	73	22.70%
Stress	71	22.10%
Anxiety	53	16.50%
No-Change	88	27.40%

Depression is a **mood disorder that causes a persistent feeling of sadness and loss of interest**. Also called a major depressive disorder or clinical depression, it affects how you feel, think and behave and can lead to a variety of emotional and physical problems.

Stress is a **feeling of emotional or physical tension**. It can come from any event or thought that makes you feel frustrated, angry, or nervous. Stress is your body's reaction to a challenge or demand. In short bursts, stress can be positive, such as when it helps you avoid danger or meet a deadline.

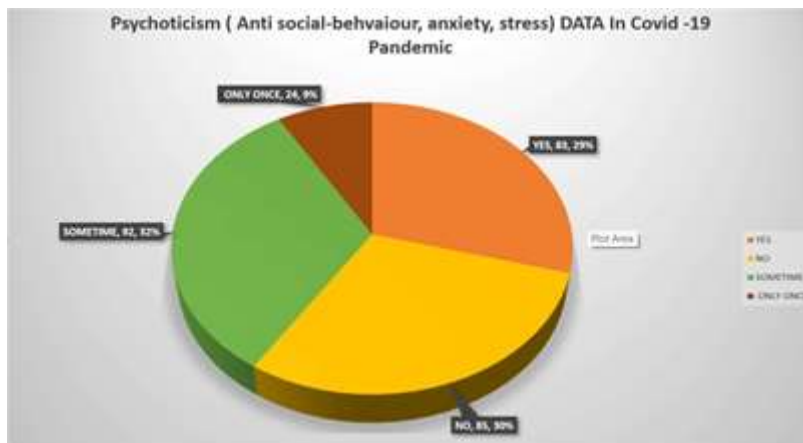
Mania is a **condition in which you have a period of abnormally elevated, extreme changes in your mood or emotions, energy level, or activity level**. This highly energized level of physical and mental activity and behavior must be a change from your usual self and be noticeable by others
 Insomnia is a **common sleep disorder that can make it hard to fall asleep, hard to stay asleep or cause you to wake up too early and not be able to get back to sleep**.



4.10 PSYCHOTICISM (ANTI-SOCIAL BEHAVIOUR, ANXIETY, STRESS) DATA DURING COVID-19 PANDEMIC

Psychoticism is one of the three personality traits used by psychologist Hans Eysenck in his P-E-N model (psychoticism, extraversion, and neuroticism) model of personality.

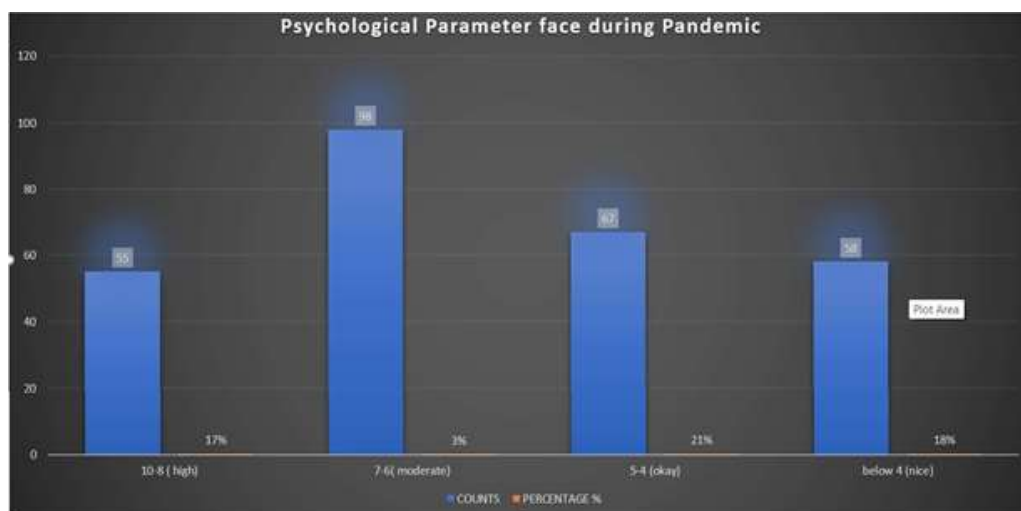
High levels of this trait were believed by Eysenck to be linked to increased vulnerability to psychoses such as schizophrenia. He also believed that blood relatives of psychotics would show high levels of this trait, suggesting a genetic basis for the trait. Psychosis is an abnormal condition of the mind that results in difficulties determining what is real and what is not real. Symptoms may include delusions and hallucinations, among other features. Additional symptoms are incoherent speech and behavior that is inappropriate for a given situation. There may also be sleep problems, social withdrawal, lack of motivation, and difficulties carrying out daily activities. Psychosis can have serious adverse outcomes.



Graph No 8: Psychoticism (anti-social behaviour, anxiety, stress) data during covid 19

4.11 PSYCHOLOGICAL PARAMETERS FACED DURING COVID-19 PANDEMIC

PSYCHOLOGICAL PARAMETER is a characteristic of a population, such as the mean or standard deviation, that is described or estimated by a statistic obtained from sample data. Mental health can be broken down further into three major components: **cognitive health, emotional health, and behavioral health**. Each of these components interacts with and influences the others, and they are all imperative to overall wellbeing. The psychological parameter scale is a system of measurement for a cognitive, social, emotional, or behavioral variable or function, such as personality, intelligence, attitudes, or beliefs. High ranges with 10-8, moderate scale 7-6, okay situation with 5-4 and below 4 is ideal and perfect

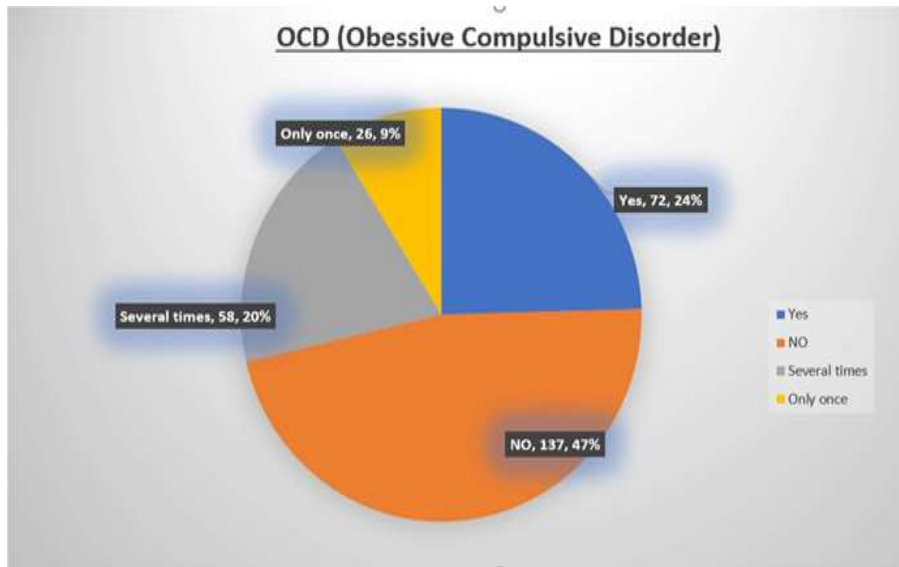


Graph No 9 Psychological parameter face during pandemic.

4.12 OCD (OBSESSIVE COMPULSIVE DISORDER) DURING COVID-19 PANDEMIC

Obsessive-compulsive disorder is characterized by unreasonable thoughts and fears (obsessions) that lead to compulsive behaviours' often centres on themes such as a fear of germs or the need to arrange objects in a specific manner. Symptoms usually begin gradually and vary throughout life. Treatment includes talk therapy, medication, or both. OCD often canters on themes such as a fear of germs or the need to arrange objects in a specific manner.

Symptoms usually begin gradually and vary throughout life. Behavioral: compulsive behavior, agitation, compulsive hoarding, hypervigilance, impulsivity, meaningless repetition of own words, repetitive movements, ritualistic behavior, social isolation, or persistent repetition of words or actions
 Mood: anxiety, apprehension, guilt, or panic attack
 Psychological: depression or fear
 Also common: food aversion, nightmares, or repeatedly going over thoughts

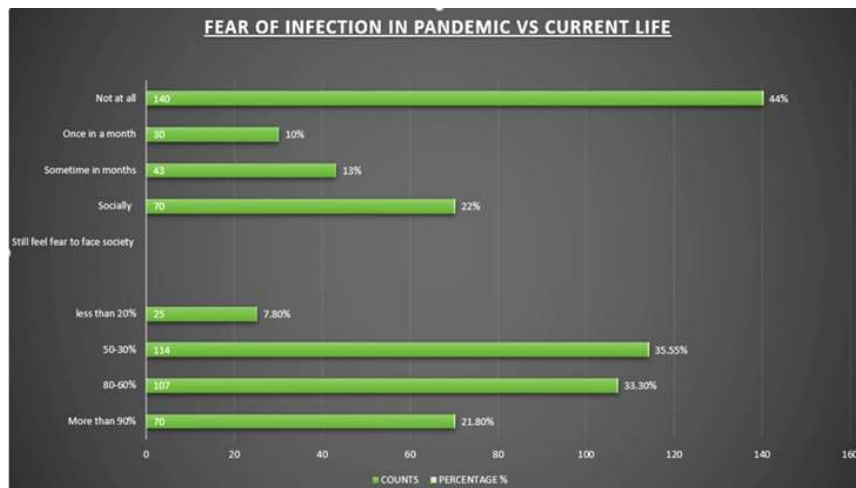


Graph No 10: OCD (Obsessive compulsive Disorder)

4.13 FEAR OF INFECTION IN PANDEMIC VS CURRENT LIFE

The data represents two sets of data consisting of the fear of infection in the time of lockdown with four different options, less than 20%, 50-30%, 80-60%, and more than 90% rating with the current situation of a person is he/she still feel fear to face society with options like, socially, sometimes in a month, once in a month, not at all.

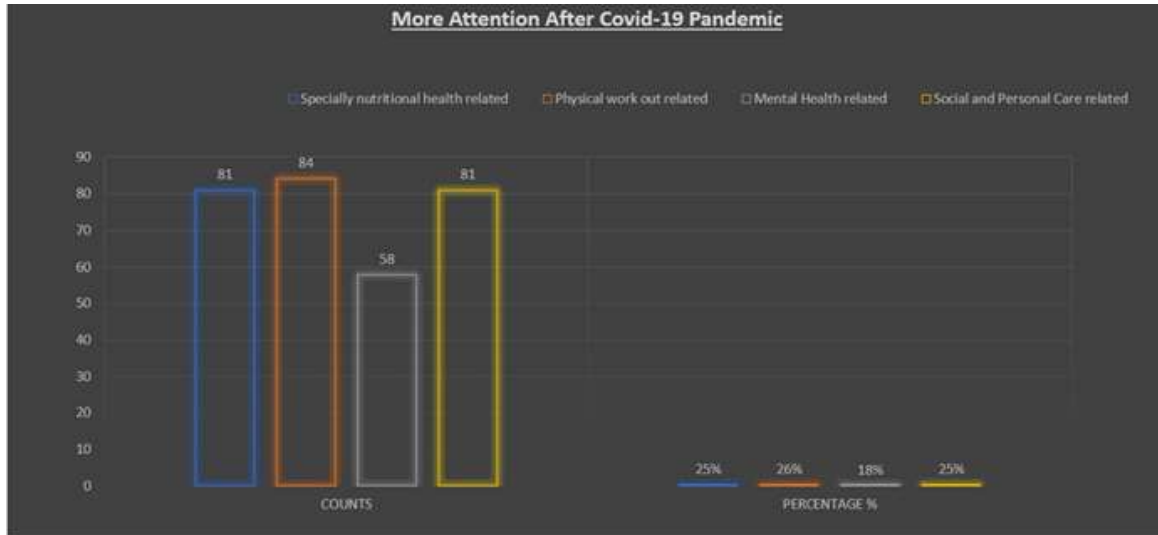
Some people are still in the trauma and they feel difficulties facing the society because a pandemic affects their psychology.



Graph No 11: Fear of infection in pandemic current life

4.14 PAYING MORE ATTENTION AFTER THE COVID-19 PANDEMIC

After the pandemic people recognized the importance of immunity, nutritional health, physical workout, social and personal care, and mental health importance.



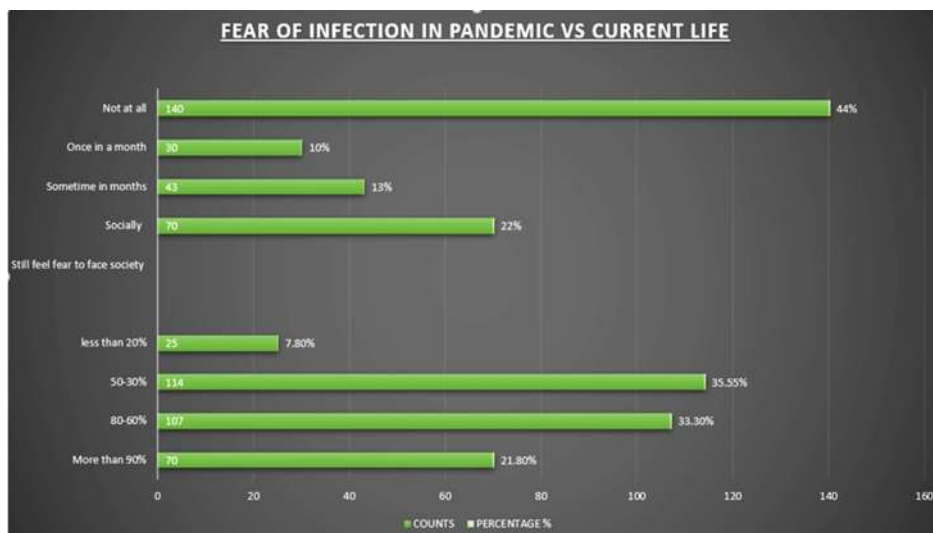
Graph No 12: Paying more attention after the covid-19 pandemic

CATEGORY	COUNTS	PERCENTAGE %
Specially nutritional health-related	125	41%
Physical workout-related	103	34%
Mental Health-related	51	17%
Social and personal care	23	8%

4.12 G TABULAR REPRESENTATION OF PAYING MORE ATTENTION AFTER THE COVID-19

4.15 FEAR OF FOURTH WAVE OF CORONA & SAFETY PLANS FOR COVID -19

Here we represent two questions in one graph, According to many foreign researchers, the Omicron sub-variant BA.2 has two special characteristics. Including dizziness and extreme tiredness. Apart from this, this variant of corona affects the stomach and intestines more. Due to this, symptoms like vomiting, stomach pain, heartburn, loss of appetite, back pain, diarrhea, and swelling of the intestine can be seen.



Graph No 13: Fear of fourth wave of Corona and safety plans for covid-19

4.13 H TABULAR REPRESENTATION OF FEAR OF FOURTH WAVE OBSERVED IN THE COVID-19 PANDEMIC AND THE SAFETY PLANS :

Fear of the fourth wave observed in the participants		
State of fear	COUNTS	PERCENTAGE%
Yes	94	30%
No	75	23%
Little Fear	91	29%
Fearless	36	11%
Safety Plans for future health issues by the participants		
YES, I have executed it already	71	22%
Have a plan in my mind	101	31%
Plans yet	34	11%
Not so worried about plans	74	23%

CONCLUSION

The developed tool is valid and reliable to assess the changes in lifestyle-related behavior of individuals during COVID 19 pandemic. The data is beneficial for the timely assessment of the nature and degree of the psychological distress experienced by people in India during the COVID-19 crisis. It could further be an assistance to the Government policymakers as well as health care workers to take adequate measures to ensure sound mental health among people.

The present survey suggests that more than two-fifths of the people are experiencing common mental disorders, due to lockdown and the prevailing COVID-19 pandemic. This finding suggests that there is a need for expanding mental health services to everyone in the society during this pandemic situation.

The coronavirus disease of 2019 (COVID-19) that is caused by infection with the severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) has recently been designated a pandemic by the World Health Organization, affecting 4.4 million individuals globally as of May 16, 2020, with over 301,059 deaths. A growing body of evidence supports CNS involvement.. It is unclear whether neurological and psychological dysfunction is due to direct viral injury or systemic disease.

During the survey, a total of 321 responses were collected and responses were analyzed. About 16.5% had anxiety and 12.1% of the participants had depression. About 28.6% had psychoticism during the pandemic and 22.85% suffered from OCD. Overall, 40.5% of the participants had either anxiety or depression. Moderate level of stress was reported by about three-fourths (74.1%) of the participants and 71.7% reported poor well-being.

Government should take some steps to improve the mental health and psychological awareness of upcoming young brains in the future.

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