

Research Article



Impact of Covid-19 Pandemic Imposed Lockdown on Happiness and Depression

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ABSTRACT

COVID-19 pandemic presents countries with major political, scientific, and public health challenges. The onset of the pandemic resulted in both positive and negative impacts on people's physical, mental and emotional wellbeing. The aim of this study is to assess the impact of the covid-19 pandemic imposed lockdown on happiness and depression. A cross-sectional study was conducted using two standard Questionnaires «Oxford Happiness Index» and «Montgomery and Asberg Depression Rating Scale». The Questionnaire was employed through Google form, and circulated via social platforms. All the collected data were analyzed using the SPSS version 22 statistical method. A total of 494 out of 515 participants gave consent, the majority of them belonging to the age group 18-25(74.7%). Our study noticed that during the COVID-19 lockdown, the majority of the participants were very happy as they got quality time to spend with their family and friends. Only a few experienced severe depression mainly due to pandemic situations or missing their beloved ones. The lockdown imposed by the COVID-19 pandemic was correlated with an impact on both happiness and depression. The COVID-19 pandemic resulted in increased happiness and very few people suffered depression during a lockdown situation. There will always be an important need to track population habits and well-being and to collect research data to establish evidence-driven strategies to minimize the impact of the introduction of lockdowns and the consequences induced by these unprecedented changes in the everyday lives of people.

Keywords: COVID-19, Pandemic, lockdown, Happiness, Depression.

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INTRODUCTION

The COVID-19 pandemic has been one of the biggest threats facing all individuals around the world in decades. The government of Karnataka announced the lockdown and closure of all schools and colleges in Karnataka on 13 March 2020. India's government declared a nationwide lockdown on 25 March 2020 with social distancing and bans on virtually all commercial activities and mass gatherings.

The pandemic led to increased support from friends, family members, increased sharing of feelings between family members, or when feeling blue with others, and increased care for the feelings of family members. The pandemic prompted individuals to pay more attention to their mental health; they had quality self-care time. They even altered their routine lifestyle. Overall, a moderate stressful effect on populations was correlated with the COVID-19 pandemic¹. The lockdown allowed individuals to precede work from home; this had an unexpected effect on family mealtime and eating habits. A recent study conducted by

a start-up based in Bengaluru indicated that lockdown has had a substantial effect on sleep habits^{2,3}. The pandemic and lockdown have had a marked effect on private-sector mental health programs. The most affected services were ECT services, inpatient services, psychotherapy services, and outpatient services⁴. The pandemic of COVID-19 had negative psychological implications for individuals. During the lockdown, women, young people, and those who consider themselves in the risk-population community suffered the most⁵. Because of the marked influence of covid-19 lockdown and lockdown constraints on people's mental wellbeing, physical health was significantly affected⁶. Psychological decompensation and an increased number of suicide cases are attributed to the massive constraints of corona lockdown on both social and economic life along with psychosocial stressors⁷. The covid-19 lockout had a negative and important correlation with happiness despite all⁸.

A state of supreme well-being and good spirits is happiness. Positive energy is satisfaction. In hopes of achieving a greater understanding of global well-being and meaningful life, positive thinking has brought this idea into the field of empirical science. In general, happiness is understood as the optimistic feelings that we have regarding the pleasurable experiences in which we engage throughout our everyday lives⁹. Depression is a condition of mood that includes a strong sense of distress and lack of interest. As a part of life, it is different from the mood swings that people routinely encounter. Significant life



events may lead to depression, such as bereavement or the loss of a career. Depression is an on-going, not a passing, problem. It is made up of episodes during which the symptoms last for several weeks, months, or years¹⁰. During the lockdown situation imposed by covid-19, data collection via web-based surveys was increasingly common for different reasons.

Objectives

The primary objective of the current study was to determine the effect of the covid-19 pandemic-imposed lockdown on the happiness and depression of an individual, and the secondary objective was to identify the reasons for each individual's happiness and depression during the lockdown caused by covid-19.

MATERIALS AND METHODS

Ethical approbation

The study was reviewed and accepted by the Adichunchanagiri Institute of Medical Sciences' institutional ethical committee, BG Nagara, Mandya, Karnataka, India. IEC number: AIMS/IEC/908/2019-20.

Development of the questionnaire and procedure

A 40-item questionnaire¹¹, structured using two standards "Oxford Happiness Index" and "Montgomery and Asberg Depression Rating Scale (MADRS)" questionnaires^{12,13}. Four demographic-related questions were included in the research questionnaire, followed by a single domain consisting of 40 questions in which a 6-point Likert scale answered 29 questions and 10 questions with four choices that are self-explanatory.

From July to August 2020, a cross-sectional study was performed using two standard Oxford Happiness Index and Montgomery and Asberg Depression Rating Scale (MADRS) questionnaires. Considering the conditions for inclusion and exclusion and after the subject consented to voluntary enrolment in the study. On Google Forms¹⁴, a simple web-based link was built to respond to survey questionnaires and sent via e-mails, Facebook, LinkedIn, and WhatsApp, a common forum for sharing and discussing individual information and life activities. In compliance with ethical standards, privacy was strictly secured during the whole study process. To answer queries related to the questionnaire, people willing to participate were able to consult the volunteer accessible through e-mails. By conducting a pilot study, the understandability, reliability, and validity of the questionnaire were tested.

Statistical analysis

Data was entered and cross-checked for its accuracy in Microsoft Excel spreadsheets. Statistical research was carried out using the IBM SPSS windows statistics program, version 22 (Armonk, NY, USA). Means, standard deviation, and frequency were used as descriptive statistical tools. Age, sex, marital status, profession, happiness, depression are variables included in the study. To measure the relationship between the study variables, the chi-square

test was used and a p-value of < 0.05 indicates the statistical significance.

RESULTS

Socio-demographic personality

494 people participated in this research survey among 517 populations, of which 240 (48.6%) of participants were male and 254 (51.4 %) were female. Of the participants, about 78.5 % (388) were unmarried and only 21.5 % (106) were married. The majority of respondents belonged to the 18-25 age groups (74.7%) and were students (Table 1).

Table 1: Socio-demographic characteristics of the participants (n=494).

Variables	Frequency (N)	Percentage (%)
Age in years		
18-25	369	74.7
26-30	39	7.9
31-35	16	3.2
36-40	25	5.1
41-45	18	3.6
46-50	11	2.2
51-55	9	1.8
56-60	7	1.4
Gender		
Male	240	48.6
Female	254	51.4
Marital status		
Married	106	21.5
Unmarried	388	78.5
Profession		
Student	278	56.3
Teaching staff	34	6.9
Non-teaching staff	10	2.0
Medical profession	43	8.7
IT sector	48	9.7
self-employment	36	7.3
Homemaker	29	5.9
Government employee	16	3.2

Estimated happiness based on 'Oxford happiness scale

227(46.0 %) of 494 participants were 'Very happy; Pretty happy'; 52(10.5 %) were 'very happy' during the corona lockdown time only 3(0.6 %) participants were 'Not happy' (Table 2).

Estimated depression based on the Montgomery-Asberg depression rating scale (MADRS)

The majority of participants were found to have no signs of depression or very mild depression among 494 participants, which is negligible, i.e. 173 (35 %) and 192



(38.9 %) respectively. It was found that only 30(6.1 %) participants were severely depressed (Table 3).

Table 2: Estimated happiness based on 'Oxford happiness scale'

Level of Happiness	Frequency (N)	Percentage (%)
Not Happy	3	0.6
Somewhat Unhappy	21	4.3
Not particularly happy or unhappy	191	38.7
Rather happy; pretty happy	227	46.0
Very happy	52	10.5
Total	494	100.0

Table 3: Estimated depression based on Montgomery-Asberg depression rating scale (MADRS)

Severity of Depression	Frequency (N)	Percentage (%)
No depression	173	35.0
Mild depression	192	38.9
Moderate depression	99	20.0
Severe depression	30	6.1
Total	494	100.0

Correlation between happiness and depression with socio-demographic factors

Our research demonstrates a substantial correlation between happiness and age ($p=0.014^*$), i.e. the age group 18-25 experienced the highest degree of happiness. Age ($p=0.000^*$), gender ($p=0.02^*$) and marital status ($p=0.001^*$) were significantly correlated with depression. This explains that the age group 41-50 experienced the majority of severe depression, and male participants (21/240) were more severely depressed than female participants (9/254). It also indicates that, as compared to unmarried participants (15/388), married participants were severely depressed (15/106).

Reason for Happiness and sadness

Of the 494 participants, the majority (31.8 %) were happy for no clear reason. Around 37.6% of the participants were satisfied with the family for spending quality time with them along with spending time with friends or self-care, learning new things, cooking or exploring new dishes, closed college, working from home, sleeping well, playing or listening to music. Overall, because of the lockdown and having enough family time, we can claim that most people were happy at home (Table 4).

Our study showed that, without any good cause, most participants (61.1 %) were sad. And others were sad

because of boredom, pandemic condition, and possible stress about the future after the pandemic, missing beloved ones, missing academics, wasting time in lockdown, or weight gain. The study also found that few participants were sad because they were trapped in hostels or other locations and were unable to visit their family for a longer period or because of lack of independence, being with their family made some participants sad. All of these have induced depression in some individuals (Table 5).

Table 4: Reasons for Happiness

Reasons	Frequency (N)	Percentage (%)
Unknown reasons	157	31.8
Family	124	25.1
Family & Devotion	6	1.2
Family & Food	9	1.8
Family & Friends	22	4.5
Family & learning new things	9	1.8
Family & Relaxing in home	9	1.8
Family & No college	7	1.4
Happy	95	19.2
Healthy	1	0.2
Music	2	0.4
Optimistic	26	5.3
Playing	3	0.6
Reasons for happiness	1	0.2
Self-time	19	3.8
Sleep	2	0.4
Work from Home	2	0.4
Total	494	100.0

Table 5: Reasons for sadness

Reasons	Frequency (N)	Percentage (%)
Unknown reason	302	61.1
Boring	17	3.4
Family	5	1.0
Future Tension	19	3.8
Missing academics	17	3.4
Missing someone/something	23	4.7
No freedom	8	1.6
Pandemic	41	8.3
Reasons for sadness	1	.2
Sad	45	9.1
Wasting of time	9	1.8
Weight gain	3	.6
Work	4	.8
Total	494	100.0

DISCUSSION

This current research in India is believed to be the first of its kind to examine the effect of the lockdown imposed by the covid-19 pandemic on happiness and depression and to establish the reasons for their happiness and depression. Firstly, the results of our research illustrate that during the lockdown imposed by the covid-19 pandemic, the majority of individuals experienced happiness. Secondly, it illustrates that during the lockdown period, males displayed more signs of severe depression compared to females. Thirdly, it states that single/unmarried individuals were less severely depressed than married individuals. The continuous rise in COVID-19 cases has resulted in the extension of the length of the lockdown announced by the Government of India. For 3 months, residents endured a rate of 5.0 lockdowns. People were forced to be at home for a longer duration of time during that lockdown period, it was clear that there was a constraint on daily routine activities such as shopping, wandering outside, morning or evening walking, etc., and it was almost normal for most people to get mentally exhausted or depressed. On the other hand, in COVID-19 lockdown, individuals often experienced happiness because they had enough time to spend with their children, partner, and parents. By performing daily yoga, meditation, workouts, and most of them have embraced a balanced diet at home, many individuals have changed their lifestyle. In the end, these behaviors strengthened their mental health and improved their immunity.

Demographic information from participants in the study indicates that 74.7 % of respondents were young and professional between 18-25 years of age, which shows that they were more responsive and expressive. From the age group of 56-60 years, we obtained just 1.4% of participants. More than half of the overall respondents (51.4%) dominated the female gender and about 78.5% of participants were unmarried. Our research observed that during the corona lockdown period, most people experienced happiness. 279 out of 494 individuals experienced happiness, and during the lockdown, only 30 individuals were found to be severely depressed. In consideration of the secondary objective, the participants provided many reasons for happiness and sadness among those, the reason for happiness including spending time with their families, learning cooking and crafts, listening to music, spending time on themselves by enhancing their physical well-being, and practicing regular meditation and yoga, according to most students shutting down school/colleges and having no assignments before starting online classes made them happy. Reasons for depression include trapped in hostels and workplaces and didn't get time to spend with their families, missing their academic activities, or missing beloved ones. Some individuals were also depressed due to weight gain during the lockdown. Like the bars, malls, and shopping centers were shut down, tourists; people who like shopping, party people were discovered to be sad.

A study conducted by Usama Rehman et al. shows that students and healthcare professionals have been found to experience stress, anxiety, and depression more than others in different occupations, and were in contrast to current study results¹³. And a similar study conducted by Paula Odriozola-González et al. found that a total of 50.43% of respondents had moderate to extreme outbreak effects and that students had higher scores related to the event's anxiety, depression, stress, and impact of the event¹⁴. Our study explains that students were more responsive and expressive that they were found to dominate both happiness and depression, but there was no substantial difference in medical professionals' perception of depression as they were aware of the pandemic situation and were responsible for handling it and fulfilling their duties regularly.

Research performed by Bruno Arpino et al. on older people's non-physical contacts and depression during the covid-19 lockdown shows that increased perceived depressed feelings were comparatively more common in women compared to men¹⁵. And another study conducted by Debashree Sinha on the effects of lockdown due to covid-19 on post-traumatic stress and depression among college students in Kolkata, the hotspot district of West Bengal, India also shows that female undergraduate college students were dominant in depressive symptoms¹⁶. Both studies indicate that, compared to men, women were more depressed or displayed signs of extreme depression, which is contradictory to the results of this current research. According to the study conducted by Anil Sigdel et.al, Females were more depressed than males and unmarried people were more seriously depressed compared to married people. It was the opposite and does not endorse the results of our study¹⁷.

According to the study of Yingfei Zhang et.al, the majority of participants indicated that they received increased support from friends (64.6%) and family members (63.9%), the majority have observed and enhanced shared feelings with family members (57.8%), increased shared feelings with others while feeling happy, and increased concern for the feelings of family members. These results were concurrent with the results of the present analysis¹⁸.

According to our report, the prevalence of depression during covid-19 enforced lockdown is 26.1%, including moderate to severe depression (20% and 6.1% respectively), which was supported by a recent systematic review and meta-analysis by Sofia Pappa et.al, which portrays depression with a predominant prevalence (22.8%)¹⁹.

CONCLUSION

The lockdown imposed by the COVID-19 pandemic was correlated with an impact on both happiness and depression; our research managed to capture some immediate positive and negative mental health effects of the lockdown imposed by the COVID-19 pandemic. Our research shows that the COVID-19 pandemic resulted in



increased happiness in more than half of the population and most people were free of the symptoms of depression because of various reasons, only a negligible number of people experienced depression due to pandemic pressure during a lockdown situation. There will always be an important need to track population habits and well-being and to collect research data to establish evidence-driven strategies to minimize the impact of the introduction of lockdowns and the consequences induced by these unprecedented changes in the everyday lives of people. Some relevant potential research areas have also been proposed in our report to determine the effects of the COVID-19 pandemic.

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