CORONAVIRUS (COVID -19 PANDEMIC): EMOTIONAL INSTABILITY AND PSYCHOLOGICAL IMPLICATIONS ON MENTAL HEALTH SYSTEMS- A CROSS-SECTIONAL STUDY

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ABSTRACT

Aim- The present study has to explore the psychological state status of the overall adult population in India during COVID-19 outbreak, in terms of the psychological impact caused by the Pandemic. Objective- To gauge the extent to which the subsequent variables are associated to psychological impact, Extraversion, Agreeableness, Conscientiousness, Neuroticism, and Openness.

Methods- Cross-sectional study (Questionnaire-based study). The study was approved by the ethics committee's board of NKPSIMS & Lata Mangeshkar Hospital and Research Centre Nagpur. Conducted starchier standardized test Big 5 Inventory. Data collection period comprised between April 2020 to August 2020.

Results – The paired t-test outcomes obtained from pair1 (Neuroticism) problem was -1.467 (t -1.155 statistically not significant). Pair 2 (Agreeableness) problems were 3.600 (t 3.907 statistically significant). Pair 3 (Extraversion) problem was -1.200 (t -1.230, statistically not significant). Pair 4 (Conscientiousness) problem was 1.389 (t 1.401 statistically not significant), and pair 5 (Openness) problem was -.178 (t -.204 statistically not significant).

Conclusion- Such Major COVID-19 Pandemic would have negative effects on someone –openness, conscientiousness, extroversion, agreeableness, and develop neuroticism- depression, sadness, anxiety, and aggression. First educate the peoples about the mental and emotional psychological reactions, effects and management. Secondly encourage them for practical hobbies like – Drawing, dancing, singing, crafting, gardening, educating children, develop creative and meaningful videos to increase people during COVID-19 Pandemic period. Third accurate coordination and regular communication about the COVID-19 Pandemic physical health and psychological health. Fourth this study indicates the psychotherapy approaches that consider to the advance of emotional regulation skills could be particularly effective (Related to psychotic experiences) and it is often potentially significant early intervention target in non-clinical subjects.

Keywords

Big 5 Inventory, emotional health, counselling.

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Introduction

The COVID -19 Pandemic has impacted the psychological state of individuals around the world [1]. Coronaviruses are a family of viruses which will cause illnesses like the cold, severe acute respiratory syndrome (SARS) and therefore the Middle East respiratory syndrome (MERS). In 2019, a replacement coronavirus was identified because of the explanation for a disease outbreak that originated in China. In December 2019, the coronavirus virus 2019 (COVID-19) started spreading within the Chines city of Wuhan (Hubeiprovince).

Coronavirus commonest symptoms of the virus are fever, dry cough, throat, nausea, breathing difficulty, some patients even have aches and pains, nasal congestion, runny nose, pharyngitis, vomiting, and diarrhoea. [2,3], even in NHM (Ministry of Health & Family Welfare Government of India [4]. There are over 24,452,629 Confirmed cases with quite 8,31,586 death worldwide and In India 3463972 confirmed active cases and 62550 death as 29th August 2020. Most affected countries are us of America, Russia, Brazil, Italy, Iran, Spain, England, France, UK, Germany, Canada, are intensifying their effects to manage the Pandemic through collective public health intervention measures.

The severity of COVID-19 symptoms can range from very mild to severe. Some people may have only a couple of symptoms, and a few people may haven't any symptoms in the least. Some people may experience worsened symptoms, like worsened shortness of breath and pneumonia, a few weeks after symptoms start. Infection with the new coronavirus (severe acute respiratory syndrome coronavirus 2, or SARS-CoV-2) causes coronavirus disease 2019 (COVID-19). The virus appears to spread easily among people, and more continues to be

discovered over time about how it spreads. Data has shown that it spreads from person to person among those in close contact (within about 6 feet, or 2 meters). The virus spreads by respiratory droplets released when someone with the virus coughs, sneezes or talks. These droplets are often inhaled or land within the mouth or nose of an individual nearby. It also can spread if an individual touch a surface with the virus thereon then touches his or her mouth, nose, face or eyes [5,6] although this is not considered to be the most way it spreads. this will happen in two ways: a) Direct close contact: one can get the infection by being in close contact with COVID-19 patients (within one Metre of the infected person), especially if they are doing not cover their face when coughing or sneezing. b) Indirect contact: the droplets survive on surfaces and garments for several days. Therefore, touching any such infected surface or cloth then touching one's mouth, nose or eyes can transmit the disease consistent with the Ministry of Health & Family Welfare Government of India.[4]

Asper theplanet Health organization, it's induced a substantial degree of fear, worry and concern with int he population. Publicly sychological state terms, the most psychological impact like rates of stress or anxiety has been elevated. With the introduction of the latest impacts especially quarantine, many people's usual activities, routines or livelihoods facing bad impact.

The Pandemic has essentially influenced our way of life, career and economy over the last six months. Fear of falling ill and dying, avoiding health care, financial, fear of losing work and livelihoods, socially excluded, fear of being placed in quarantine, powerlessness in protecting oneself and loved ones, separated from loved ones and caregivers, refusal to worry for vulnerable individuals fear of infection, helplessness, lack of self-esteem to try to anything in lifestyle, boredom, loneliness, and depression to being isolated [7]. Evidence also suggests that individuals may experience symptoms of Stress, depression, suicidal ideation, anxiety, post-traumatic stress disorder, panic disorders, and behavioural disorders. Predisposing factors include staying far away from family, loneliness, misinformation on social media, financial insecurity and stigmatization. [8,9,10,11] Qiu J study shows 53.8% have severe psychological effects, 28.8% of severe anxiety, 16.5% of severe depression and eight .1% of severe stress.[12] Similarly, other studies have assessed the psychological impact of coronavirus (COVID-19) and have also found high levels of psychological distress [13,14,15,16,17]

The reasons are many – the fear of losing jobs, earnings, savings and basic resources like groceries, medical supplies, etc. Moreover, there's a continuing fear of disease transmission giving rise to epidemic hysertia, xenophobia, stigma and marginalisation. additionally, to the present, the lockdown has induced a big increment in withdrawal manifestations due to inaccessibility to liquor, tobacco and different addictive substances. of these factors have overwhelmed our mental outlook. the planet Health Organization has issued guidelines for managing the matter from both biomedical and psychological points of view.

Everywhere in world offices are closed, school, colleges, shopping malls, shops, government offices are closed, even in India also. General peoples developing an oversized range of systems of psychological stress, depression, anxiety, mood swings, insomnia, aggression toward self or others, irritability, post-traumatic stress or emotional instability. Even in many Studies had found heavy psychological burdens among healthcare workers and the general public like anxiety, depression, panic attacks, or psychotic symptoms. [18,19,20,21,22]. Psychological Fear can drive feelings of hysteria and unease resulting in irrational behaviour like covers their face with cloths or mask, hand sanitizer, hand gloves, regular hand wash and social distancing. Most of the people described as bring obsessive about watching media, contracted an epidemic which they wrongfully interpreted COVID-19 Pandemic. The stock exchange crashed, home economy, job-related conflicts, financial factors, no sources for generating money, and far of people stay indifferent state areas for his or her needs even they didn't get proper support. Reasons for stress occur lockdown there's a risk of infection, fear of becoming sick or of losing love ones. Common psychological reactions related to the mass quarantine which was imposed to attenuate the COVID-19 spread are generalized fear and pervasive community anxiety which are typically associated with disease outbreaks and increased

with the escalation of latest cases alongside inadequate, anxiety-provoking information which was provided by media. [23]

The present study has to explore the psychological state status of the overall adult population in India during COVID-19 outbreak, in terms of the psychological impact caused by the Pandemic. **Objective-** To gauge the extent to which the subsequent variables are associated to psychological impact, Extraversion, Agreeableness, Conscientiousness, Neuroticism, and Openness.

Study Design

Cross-sectional study (Questionnaire-based study). The study was approved by the ethics committees board of NKPSIMS & Lata Mangeshkar Hospital and Research Centre Nagpur. Given the restrictions imposed over the face-to-face interaction during the data-collection period, data were collected online, through a Google Forms questionnaire. Data collection period comprised between April 2020 to August 2020. Participants were contacted by email and social networks (Facebook, Instagram, Twitter, Linkedin, Gmail, and WhatsApp), following a snowball approach. All respondents provided consent before accessing the questionnaires. Total numbers of participants are 186. Written consent was looked for each participant who volunteered and fulfilled the inclusion criteria- a) From 18 years and above take participates within the current study. Participants with age below 18years weren't included, and people who were unable to talk /hear or intellectual disabled were excluded from the study.

Data was collected using structured self-administered questionnaire having in one setting. First of all, collected all sociodemographic characteristics and second conduct starchier standardized test Big 5 Inventory. Total 44-item inventory that measures a private on the large Five Factors (dimensions) of personality. Each of the factors is then further divided into personality facets (Extraversion, Agreeableness, Conscientiousness, Neuroticism, and Openness). The assessment period to solve all questionnaires within a half-hour. 186 subjects are selected randomly. Which contains 90 male and 96 females. A period of 5 months was dedicated to the info collection.

Data Collection and Analysis

First, the data were checked according to Scorning guideline, and then it was coded into a personality problem. The coded data were entered gender-wise into excel sheet, then put into IBM- SPSS Version 25 software for further statistical analysis. Descriptive analysis was done using frequency and proportion, mean, standard deviation, paired t-test, and frequency tables and graphs were used for presenting the data. The Finding was determined using crude and adjusted or with a 95% confidence interval.

Results

Demographical and descriptive data: - Around the participants 90/186 (48.38%) male, and 96/186 (51.61%) are females. Of these 38 (20.43%) participants from 18 to 25 years old, 42 (22.58%) participants from 26-30 years old , 36 (19.35%) participants from 31-40 years old , 39 (20.96%) participants from 41-50 years and 31 (16.66%) participants from 51 and above years old, with an average mean of 31.17. Only 22/186(11.82%) are lived in rural areas and 164/186 (88.17%) are from urban areas. Regarding socioeconomic standard (SES) all are from average economic status. Descriptive statistic for all questionnaire measures is presented in Table. 1.

Table. 1. Demographical Profile of Participants in Current Study

AREAS	NUMBERS OF COUNT	PERCENTAGE
Male	**90**	**48.38%**
Female	**96**	**51.61%**
Age in years		
18-25	**38**	**20.43%**
26-30	**42**	**22.58%**

31−40	**36**	**19.35%**
41−50	**39**	**20.96%**
51 and Above	**31**	**16.66%**
Educational Background		
Graduate Degree	**48**	**25.80%**
Master's Degree	**76**	**40.86%**
Other Degrees	**62**	**33.33%**

Table. 2. Shows Mean, Std. Deviation, paired t-value and P -value of psychological difficulties

Paired Samples Test												
		Paired Samples Statistics			Paired Differences							
								95% Confidence Interval of the Difference				
			Mean	Std. Deviation	Mean	Std. Deviation	Std. Error Mean	Lower	Upper	t	df	Sig. (2-tailed)
Pair 1	Neuroticism	Male	14.07	6.149	-1.467	12.044	1.270	-3.989	1.056	-1.155	89	.251
		Female	15.53	7.831								
Pair 2	Agreeableness	Male	15.87	6.257	3.600	8.742	.921	1.769	5.431	3.907	89	.000
		Female	12.27	6.774								
Pair 3	Extraverssion	Male	13.60	6.611	-1.200	9.252	.975	-3.138	.738	-1.230	89	.222
		Female	14.80	6.179								
Pair 4	Conscientiouness	Male	15.51	6.205	1.389	9.404	.991	-.581	3.359	1.401	89	.165
		Female	14.12	6.238								
Pair 5	Openness	Male	15.54	6.791	-.178	8.276	.872	-1.911	1.556	-.204	89	.839
		Female	15.72	5.994								

The study was conducted during a small no clinical sample of individuals during COVID-19 Pandemic lockdown. Linking personality traits, emotional regulation and psychotic experiences.

The paired t-test outcomes obtained from pair1 (Neuroticism) depicted in (table no.1) revealed the mean difference within the level of Neuroticism problem was -1.467 (t -1.155 df 89 statistically not significant p> 0.05). Around 91/186 (48.92%) participants scored high in neuroticism. Affected 47/90 (52.22%) Male and 44/96 (45.83%) females participants feel vulnerable to anxiety, sadness, worries, and low self-esteem. Easily angered which they're unsure of themselves. During lockdown period maximum people showing anger towards other, and self, worries about the long run, fear about the virus, losing employment, insecurity about the financial crisis, self-doubts that they're going to come up or not, which why people losing self-esteem. Low scores indicate confident, secured, and shows positive towards life around 43/90 (47.77%) male and 52/96 (54.16%) female scored low in neuroticism. Recent studies have similarly shown that COVID-19 affects mental state outcomes like depression, anxiety, and post-traumatic stress symptoms and panic attacks. [24,25,26,27,28,29,30,31,32].

Stress-related Psychological conditions including mood and substance use disorders are associated with suicidal behaviour. In Present study noted 48 participants are suicidal ideation with other behaviour issues like - anxiety. Sadness, Worries and fears cause various mental and physical symptoms and will cause the event of hysteria disorders, depression and sleep disorders. Other Similar study noted lockdown stressors - like depression and recession, unemployment, poverty, etc. could even be highly associated with psychological distress and suicidal behaviours [24,33,34,35,25,36].

The paired t-test outcomes obtained from pair 2 (Agreeableness) depicted in (table no.1) revealed the mean difference within the level of Agreeableness problem was 3.600 (t 3.907, df 89 statistically significant p< 0.05). Around 111/186 (59.67%) participants scored low in agreeableness, affected 47/90 (52.22%) Male and 64/96 (66.66%) females participants low scored indicate less likely to be trusted and liked by others, they rude, blunt, antagonistic, and sarcastic. Insecurity to satisfy people during COVID 19 lockdown they developed negative agreeableness. low agreeableness score relates to selfish behaviour and a scarcity of empathy. [37,38]. other study shows the signs of dark trade behaviour like manipulation and competing with others rather than cooperating. [39], and high in Machiavellianism [40]. An another side 75/186 (40.32%)- male 43/90 (47.77%), and female 32/96 (33.33%) scored high and high score indicated positive feeling towards others, they showed loyalty towards other peoples, helping needy persons[41,42,43], some are making food packages, relationship building, caring for those in need, some are donated to respected warriors doctors, nurses, police, poor people's, also as sympathetic to the plights of strangers [44].

A final psychological vulnerability factor we wanted to look into was worrying. Worrying refers to a psychological process of repeated negative and catastrophic thoughts and has been related to depression and several anxiety-related disorders [45,46,47]. Looking up additional information through different media sources was significantly associated with increased fear of the coronavirus. the other categorical predictors gender, infection status, and dealing in health care) weren't predictive of increased fear of the coronavirus.

The paired t-test outcomes obtained from pair 3 (Extraversion) depicted in (table no.1) revealed the mean difference within the level of Extraversion problem was -1.200 (t -1.230, df 89 statistically not significant p> 0.05). Interact with people, outgoing and energetic. Around 135/186 (72.58%) of peoples Male 68/90 (75.55%), and female 67/96 (69.79%) are showed low extroversion is more solitary and reserved. During COVID-19 Pandemic nobody going out for a celebration, picnic, holiday, not even to satisfy love one's day by day social interaction goes down a spread of peoples are quite introspective, reserved they didn't want to talk shearing feeling with others, and thoughtfulness. Extraversion is positively correlated with Neuroticism. Low social interaction develops anxiety, depression, worriedness, insecurity and low self-esteem. Other trigger factors are economic problems the impact of economic problems related to the COVID-19 crisis (Home EMI, Education EMI, School fees, purchasing daily needs items, health sector, lost job, fear of losing their jobs or not getting proper salary) on emotional health associated with depression and anxiety. many of us around the world lost their jobs. [48], even in job insecurity and unemployment constitute significant risks of increased depressive symptoms in prospective observational studies.[49] according to the International Labor Organization (ILO) and the Asian Development Bank (ADB).[50] "For India, the report estimates job loss for 4.1 million youth. according to data from the Centre for Monitoring Indian Economy, India's overall percentage for July stood at 7.43 per cent. Among its major states, there's still cause for concern in Bihar (12.19 per cent), Andhra Pradesh (8.35 per cent), Rajasthan (15.23 per cent), Telangana (9.05 per cent), and Delhi (20.3 per cent), all of which have recorded rates markedly above the national average.[51]. Another side 51/186 (27.41%) of peoples 22/90 (24.44%) of male, and female 29/96 (30.20%) shows positive in extroversion they positive showed social interaction through online, chat, video conferencing, WhatsApp, calling, messaging. Showing energy and skill through multimedia like – Crafting, drawing, online challenges, creative work, and dealing online from their home, the study is presenting themselves and enjoying the movement what they experience from online social interaction. Many peoples are happily enjoying their relations and positively

build a healthy life. Around 86% of participants are stopped watching T.V News, newspapers, they found more media exposure was found to increased fear and developing threat information. Some study noted anxiety and fear of contagion during the COVID-19 crisis could even be related to uncertainty, fear of unknown and panic-inducing stories in traditional and social media. [52,53]. More media exposure is claimed to more fear [54,55]. Peters 2013 study suggests that such 'fear appeals' don't work alright to plug behaviour change.[56]

The paired t-test outcomes obtained from pair 4 (Conscientiousness) depicted in (table no.1) revealed the mean difference within the level of Conscientiousness problem was 1.389 (t 1.401, df 89 statistically not significant p> 0.05). Conscientiousness could also be a trait tendency to manage impulses and act in socially acceptable ways behaviours that facilitate goal-directed behaviour [57]. Around 108/186 (58.06%) several participants male 48/90 (53.33%) and female 60/96 (62.5%) scores low, and low score shows negative conscientiousness like flighty, impetuous, decision-making quality, impulsive, less responsible, less conscious of their others, strongly associated with procrastination. [58] More condescending, and fewer likely to hold back offensive comments. Presenting counterproductive work behaviour like stealing and fighting with other employees [59]. folks that score low on conscientiousness tend to be laid back, less goal-oriented, and fewer driven by success; they're also more likely to interact in antisocial and criminal behaviour. [60]. Conscientiousness positive correlated with neuroticism, agreeableness, extroversion and openness. Around 78/186 (41.93%) several participants male 42/90 (46.66%) and female 36/96 (37.5%) score high, and high score shows positive conscientiousness peoples are more likely to possess better control over their impulses. Bakx, Nina 2016 study shows score high on the order subfactor of conscientiousness show less innovative behaviour. [61]

The paired t-test outcomes obtained from pair 5 (Openness) depicted in (table no.1) revealed the mean difference within the level of Openness problem was -.178 (t -.204, df 89 statistically not significant p> 0.05). Openness to experience was found to be not significantly positively. Around 39/186 (20.96%) several participants male 12/90 (13.33%), and female 27/96 (28.12%) score low, and low score shows negativity. People during this trait are often much more traditional, struggling, abstract thinker, during COVID-19 Pandemic they dislike changes doesn't enjoy new things. Peoples face difficulties adapting to vary, low tolerance for various worldview or lifestyles, emotional flattening, alexithymia and a narrow range of interests [62]. Some say the varied facets of openness are fantasy, aesthetics, actions, ideas feelings, and values [63, 64]. Openness is positively correlated with other traits. Around 147/186 (79.03%) several participants male 78/90 (86.66%), and female 69/96 (71.87%) score high, and high score shows positive they seem to be a concrete thinker. it had been also seen that people who are high on openness showed better performance in unfamiliar environments [65]. Other study shows indicates a personal scored high in openness are getting to be more clued in to their environment and may remember of multiple influences while taking decisions [66].

Conclusion

Such Major COVID-19 Pandemic would have negative effects on someone –openness, conscientiousness, extroversion, agreeableness, and develop neuroticism- depression, sadness, anxiety, and aggression. Other supported studies Banerjee 2020, Brooks et.al. ; Kang et.a. Shows negative effects on the physical and psychological health of individual and society. (Other psychological issues like stress, losses, loneliness, suicidal ideation, mood swing, sleep problem, disturbed daily routine work, worries, frustration, guilty feeling, fear xenophobia, and other mental-emotional disturbance. Concerns would require pre-established psychological resources for correct and effective intervention and psychological management for balancing to strengthen the knowledge, accepting attitudes and openness to experiences. First educate the peoples about the mental and emotional psychological reactions, effects and management. Secondly encourage them for practical hobbies like – Drawing, dancing, singing, crafting, gardening, educating children, develop creative and meaningful videos to extend people during COVID-19 Pandemic period. Third accurate coordination and regular communication about the COVID-19 Pandemic physical health and psychological health. Fourth this study indicates the psychotherapy approaches that concede to the

advance of emotional regulation skills might be particularly effective (Related to psychotic experiences) and it's often potentially significant early intervention target in non-clinical subjects.

Author's Contributions

Dr.Pankaj Singh distributed the manuscript from its conception, analysis, scoring and interpretation of knowledge and wrote the manuscript. Dr.Anjali Edbor interpretation of knowledge and commented on and wrote the manuscript for publication. All authors approved the ultimate manuscript.

Limitations of the study

The Current Study has some necessary limitations that though to be unbroken in mind once decoding the results, first limited sample size, and second Limited sources required some clinical assessment to identified major and severe clinical pathology. Suggested longitudinal studies are necessary to determine the importance of early preventive psychological interventions and future effects to deal with early for management.

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Conflict of Interest- The authors declare that they need no conflict of interest.

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