



MENTAL HEALTH OF INDIVIDUALS TESTED POSITIVE AND NEGATIVE FOR CORONAVIRUS

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Abstract

During any outbreak of an infectious disease, the individual's psychological reactions play a critical role. Despite this concept, sufficient resources are not available to manage the pandemic effect on mental health and wellbeing. While it's important that critical patients care, psychological and psychiatric needs shouldn't be overlooked during any phase of the pandemic. There are many reasons for this. It is known that psychological factors play an important role in how people cope with the threat of infection and consequent losses. These are clearly crucial issues to consider in the management of any infectious disease, including Covid-19. Psychological reactions to pandemics include maladaptive behaviours, emotional distress, stress and defensive responses. People who are prone to psychological problems are especially vulnerable. The present study forefronts the mental health of the individuals tested positive and negative for Coronavirus. Individuals with corona positive's mental health were more affected than the individuals having negative corona test.

Keywords: Mental Health, Covid19 Pandemic.

Introduction

The corona virus infection or COVID-19 outbreak is one of the biggest medical challenges to humankind in recent times. The outbreak of COVID-19 infection started in China in December 2019, and since then, it has spread to almost all the countries of the world. Physical, mental, emotional and social dimensions of health are being impacted worldwide (Wang et al 2020)¹.

Coronavirus disease 2019 (COVID-19) is the deadly infectious disease which spread rapidly in December 2019 from Wuhan, Hubei, China, to other provinces in China and from there to several countries around the world. By March 2020, the entire world was in its complete grip. The effect has been unprecedented in terms of human-to-human transmission which has shaken the economies of the countries worldwide. Complete lockdown and partial lockdown periods ensued with no international or national flights going anywhere. People had been left stranded where ever they were as they were being asked to stay at home to stay safe. This has led to more anxiety, low self-esteem, and pervasive sadness all around with fear of the unknown amongst people. The invisible mental health issues are lining up as globally the relationships are going awry with 24x7 stay at home diktat amidst lock down periods. People are facing threats to their jobs, salary cuts, unemployment, poverty, hunger and related issues. This anxiety has led to changes in their sleep and eating patterns leading to other serious physiological and psychological concerns. (Sengupta &Mahendra Dev, 2020)⁵.

As per WHO record, on 31 March 2020, the COVID 19 has infected over a million people globally with more than 50,000 deaths(WHO,2020 Mar 31) The rapid spread of COVID 19 as compared to SARS in 2002, is because of the increase in urbanization and international travel during the last two decades. Hence, the control measures applied at the time of SARS -COVID are more vigorous as compared to SARS(Wilder-Smith et al, The Lancet)⁴.

Early case detection, isolation, and contact tracing of positive cases, followed by quarantine of the exposed have been the important measures taken by the health authorities all over the world to reduce infection spread in community. Lockdown strategies like the closure of public places and the suspension of all social events have also been implicated in many countries. (Quilty et al. Euro Surveillance 2020)³

The present study aims to have a picture of the behavioral and psychological responses of affected persons kept in isolation in COVID pandemic. On understanding, emotional impacts and behavior of persons in isolation, one can have a viewpoint of their mental health and help the authorities form policies by which significant measures can be taken to improve their mental health along with physical. This study can have important health implications of the treatment approach of the affected patients in a pandemic.

Review of Literature

Mental wellbeing is necessary for society's effective functioning (Tennant et al, 2007). In a state of well-being, individuals can cope with the traditional stress of life, be productive, and contribute to their community (Surya et al., 2017).

Coronavirus and mental health

Researches have stated that an unexpected event such as pandemic produces significant emotional effects on individuals, as that are detrimental to their mental health (Folkman & Greer, 2000). Duan et al., (2020) found that situations surrounding the pandemic increases stress related symptoms, affecting mental health.



A lot of researchers have been focusing largely on identifying the epidemiology and clinical features of infected patients, but the psychological and social impact of isolation and quarantine is also wide-ranging, significant and can be long-lasting. “Coronaphobia”, a new term coined, depicts a plethora of psychiatric issues like acute anxiety with panic disorder, obsessive behaviors, paranoia, depression and post-traumatic stress disorder (PTSD) in persons in isolation and quarantine centers. (Dubey et al)

Hawryluck et al. (2004)⁶ study revealed a high prevalence of psychological distress (28.9%) and depression (31.2%)⁸. High risk people affected by the disease included the elderly, immunocompromised people, those living in congregate places and people already having some medical or psychiatric conditions are at increased risk for adverse psychosocial outcomes. Di Giovanni et al (2003)⁸ conducted a study in communities affected in SARS and found that affected individuals, community members and health care professionals were motivated to follow rules of isolation and quarantine to reduce the risk of spreading infection to others, but still a significant number violated the rules out of emotional distress.

Bertocchi & Galasso (2020)⁷ mention about the travails of the daily wage workers who are suffering as they are unable to earn anything with the lock down state. The paradox being that most people are starving because they can't buy food, on the other hand, people are gaining weight because the gym is closed and they couldn't take the risk of going to the park due to the high risks involved in catching the infection even from an asymptomatic individual. Social alienation and social distancing has caused emotional alienation too.

Covid-19 continues to spread across the globe, and many countries have agreed to close schools as part of a slow-moving physical distance strategy Parolin & Lancker, (2020). As we all want to stop spreading the virus through close school lockdowns all over the world because of the current situation, COVID-19 is expected to have a major impact on family work due to increased housework and childcare as a result of the closure of schools and nurseries. Many women are already struggling to get to work at all, given the need to stay at home Queisser et al., (2020), and when faced with challenges, resilient women show strength in their ability to minimize the impact of anxiety, disengagement and avoid self-absorption. All mood and anxiety disorders disrupt sleep, concentration, and thus cognitive function Alexander, Dennerstein, Kotz & Richardson, (2014).

For working women too, increasing changes in the domestic life due to “work from home” situation resulting from Covid 19 pandemic has been creating emotional health hazards. In the current scenario, it is imperative that the employers and workers must be as resilient as possible to the challenges of daily working life (Maddi & Khosahaba, 2006; Spangler et al., 2012). Excessive, persistent anxiety and stress, which are difficult to control and interfere with day-to-day tasks, can be a symptom of generalized anxiety disorder. This situation gets exacerbated during the current life scenario caused due to this pandemic and needs to be addressed.

Due to this current COVID-19 situation, the levels of anxiety has become high due to more stress related to financial issues, medical issues and the feeling that one is not in control because of the uncertain times. To be stressed and anxious is the ‘new normal’.

The pandemic has huge economic consequences and is placing financial pressure on many families. Past economic recessions have shown that economic distress, even if not followed by social barriers, can pose a significant threat to mental health. study done by Kiernan FM (2019) reported that with economic decline which includes unemployment, income decline and unmanageable debt, are significantly associated with a relative decline in mental well-being, increased rates of several mental disorders, substance-related disorders and suicidal behavior, risks affecting the community as a whole.

Torales et al., (2020)⁶ mention in their work that with constant exposure to the flow of information about the pandemic and its effects; decreased social relations due to the pandemic; and recommendations/prohibitions, such as staying at home as much as possible, do adversely affect the mental health of individuals. Symptoms such as anxiety, depression, and anxiety, stress, and sleep problems are more commonly seen during the COVID-19 pandemic. (Kim et al., 2014). Y. Wang et al., (2020)¹ in their study found that Anxiety disorder has been seen at three-fold higher levels in women than in men during the COVID-19 pandemic.

Indubitably, the present era is the age of adversity, and to be productive in life, one requires both skill and capacity to cope. This paper deals with the mental health issues of the individuals diagnosed as corona positive along with the mental well being of their immediate family members and their neighbors as well. The results are interesting and have a significant bearing for the role of mental health professionals in the world of today which is infested with the invisible corona virus.

The present study has been conducted on Covid positive and negative patients.



This may assist government agencies and healthcare professionals in safeguarding the psychological wellbeing of the patients afflicted by COVID-19 as well as the general community in different parts of the world.

Objective of the Study

To study the mental health of individuals tested positive and negative for coronavirus.

Hypotheses of the Study

H₁. There will be significant differences in the locus of control, perceived stress and quality of life among Individuals tested positive and negative for coronavirus.

Material and Methods

Research Aim and Research Approach

60 individuals were selected (tested positive and negative coronavirus). A paper version of the questionnaire was used and respondents were interviewed in person in the COVID isolation ward, after following all personal protection measures and taking their informed Consent. The response rate was generally good, with 60 out of 64 approached to participate (88%) completing the questionnaire. 4 patients denied to participate and did not give consent.

Questionnaires were given to both individuals tested positive and negative for coronavirus.

Design of the study

Simple Experimental Research Design with Purposive Sampling was done to collect the data as per the instructions given in the manual.

Tests and Tools

For the present work, the following tests were used:

Locus of control (modified PGI locus scale):

Locus of control is the degree to which people believe that they can have control over the outcome of events in their lives, as opposed to external forces which are beyond their domination. Julian B. Rotter developed this scale in 1954¹⁰, and has become very popular in personality studies in an unpredicted life situation. The modified PGI locus scale used in this study includes response of a person in a common, but unforeseen life situation in Indian community. The four major dimensions of core self-evaluations – one's fundamental appraisal of oneself, neuroticism, self-efficacy, and self-esteem are assessed (Judge et al 1997)¹¹

Locus of Control scale is a simple conversational questionnaire, in which scoring portrays that patients with a strong internal locus of control believe that, events in their life derive primarily from their own actions; while those with a strong external locus of control tend to praise or blame external factors.¹²

Perceived Stress Scale

The Perceived Stress Scale includes a number of direct queries about current levels of experienced stress of the COVID patients in isolation center. The questions and response options are easy to understand and answer. The Perceived Stress Scale (PSS) is a widely used psychological scale which measures the degree to which uncontrollable and unpredictable life situations are discerned as stressful.

PGI Health Questionnaire has been used to assess the level of neuroticism and patients who score high on **neuroticism** are more likely to experience such feelings as anxiety fear, anger, frustration, guilt, depressed mood, and loneliness.

WHO Quality of life scale-(WHOQOL-BREF) assesses four major domains physical, psychological, social relationships and environment. are assessed.

This scale provide insight into the nature of disease by assessing the way disease impairs or impacts the subjective wellbeing of a person across a whole range of area. This scale when applied to COVID positive patients will depict important changes in health in isolation.

Emotional rating scale is used to detect anxiety, depression, sleep and mood disorders in affected patients in isolation which can present as physical as well mental symptoms¹⁴.



Hence, these scales have been used as measures of affected patients' resilience with their problem-solving skills, interpersonal skills and, the ability to cope with adversity with an optimistic attitude.

Instructions while administering the tests

The participant where approached and the Consent was taken from them. They were informed that the data will be kept confidential and will not be disclosed. At any time, they feel that they are uncomfortable, during the study they can with draw any time they want. They were assured that there were no right and wrong responses. They should give the first response which comes to their mind as they listen to the statements.

Statistical Analysis

The data was analysed using descriptive statistics like Mean, Standard Deviation and t-test to quantitatively assess the scores.

Results

Table 1 Showing the score on perceived stress between individuals tested positive and negative for coronavirus.

Variable		N	Mean	t	df	sign
Perceived stress	Positive tested	30	15.1	2.50	28	0.05
	Negative tested	30	13.1			

The results displayed in table 1 clearly reveal that there was a significant difference between individuals tested positive and negative for coronavirus ($t= 2.50, p<0.05$). The mean score of perceived stress for positive tested individuals was 15.1 which were higher than the mean score of negative tested. Therefore, it can be predicted from the table that there is a difference between individuals tested positive and negative for coronavirus and it lead to acceptance of hypothesis – 1 which states that there will be significant difference on perceived stress among individuals tested positive and negative for coronavirus

Table 2 showing the score on Locus of Control between individuals tested positive and negative for coronavirus.

Variable		N	Mean	t	df	sign
Locus of Control	Positive tested	30	3.28	2.65	28	0.06
	Negative tested	30	2.2			

The results displayed in table 2 clearly reveal that there was a significant difference between individuals tested positive and negative for coronavirus ($t= 2.50, p<0.05$). The mean score of perceived stress for positive tested individuals was 3.28 which were higher than the mean score of negative tested. Therefore, it can be predicted from the table that there is a difference between individuals tested positive and negative for coronavirus and it lead to acceptance of hypothesis – 2 which states that there will be significant difference on Locus of Control among individuals tested positive and negative for coronavirus.

Table 3 Showing the score on Locus of Control between individuals tested positive and negative for coronavirus.

Variable		N	Mean	t	df	sign
Quality of Life	Positive tested	30	3.28	2.85	28	0.05
	Negative tested	30	2.00			

The results displayed in table 3 clearly reveal that there was a significant difference between individuals tested positive and negative for coronavirus ($t= 2.85, p<0.05$). The mean score of perceived stress for positive tested individuals was 3.28 which were higher than the mean score of negative tested. Therefore, it can be predicted from the table that there is a difference between individuals tested positive and negative for coronavirus and it lead to acceptance of hypothesis – 3 which states that there will be significant difference on Quality of Life among individuals tested positive and negative for coronavirus.

Discussion

In the current global scenario coming to grips with the pandemic situation, people throughout the world are going through lots of fear, irritation, frustration, anxiety, stress and other negative mental health concerns.

In the present context, it was planned to do a study of the mental health of individuals diagnosed as corona positive to find out more about their inner turmoil's as they are vulnerable emotionally at this time. Also susceptible are their family members and the neighbors who live in this uncertain fear of this invisible infectious disease. A comparative study was made to find out if there are significant differences in the mental health of individuals tested positive and negative for coronavirus.



Table 1 shows score on perceived stress of individuals tested positive and negative. Results evince clearly that individuals tested positive show greater stress level as compared to individuals tested negative for Covid 19. During the pandemic, individuals experience stress related to their recovery and fear of getting the illness again.

Table 2 shows score on locus of control of individuals tested positive and negative. Results evince clearly that individuals tested positive show external locus of control. Having external locus of control relates to greater symptoms. Rannveig (2020) studied the impact of Covid 19 on mental health and found that external locus of control relates to greater psychological and physical symptoms.

Table 3 shows score on quality of life of individuals tested positive and negative. Results evince clearly that individuals tested positive shows poorer quality of life. Quality of life includes various domains such as psychological, social and physical wellbeing, since the individuals tested positive for coronavirus, develop physical, social and psychological issues. This contributes to poorer quality of life as compared to tested negative for coronavirus. Researches indicates that individuals complain a lot of physical and psychological symptoms.

In times like these, it is imperative to start building on developing resilience across all ages, class, religion and races. Resilience helps in the adjustment, management and negotiation of adversity. For this, one needs to understand the amount of stress, locus of control, emotional upheavals affecting the quality of life of patients diagnosed as positive with corona virus. This diagnosis plays havoc on the part of the patient, his family members and his neighbors too who live in the constant fear of what is going to happen to them too as well as their family members. They fear for their own lives in such a scenario.

The results have come out to be interesting as discussed above.

Conclusions

These are uncertain and unprecedented times of the COVID-19 pandemic. People are fearful, angry, frustrated, irritated and having frequent mood swings has become the “new normal”. Hence this is the time that the mental health professionals should find ways to reach out to the community while working with other medical personnel in the mutual pursuit of building bridges in the fractured relationships accrued due to the pandemic situation worldwide.

Developing positive mental health will help build resilience to deal with the economic and other adversities which have arisen due to this current scenario. The mental health professionals are there to reignite the hope in the heart of the society that “behind the clouds is sun still shining”.

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