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Level of emotional well-being during COVID pandemic among individual in rural and urban area: A comparative study

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Abstract
Emotional well-being plays a major role in maintaining positive psychological state. It controls the health-seeking behavior, enhances decision-making skills, increases interpersonal-communication, and helps get over from stressful situations or illness. Thus, it plays an important role in overall well-being of a privatel. However, this psychological character called emotion is typically neglected. COVID-19 emerged within the Wuhan province of China within the end of 2019 and over a span of next 4 months; it's spread to majority of the countries around the world. The research design applied was descriptive research design. A non-probability convenient sampling technique is used to select samples. Structured interview was used to collect the background variable and emotional well-being. Data were collected by 60 individuals (30 – Urban, 30 – Rural) at in Mappedu (Urban) and Thirumazhasai (Rural), Chennai. The analysis revealed that in urban area, 16(53.33%) had moderate level of emotional well – being and 14(46.67%) had severe level of emotional well-being among individuals during COVID pandemic. The analysis also shows that in rural area, 29(96.67%) had moderate level of emotional well – being and only 1(3.33%) had severe level of emotional well-being among individuals during COVID pandemic. The analysis revealed that the calculated student independent 't' test value of t=5.007 was found to be statistically significant at $p<0.001$ level. This clearly infers that there was significant difference between the level of emotional well-being during COVID pandemic among individuals in urban and rural area. The study findings suggest that necessary health and mental health related counseling can be arranged for the individuals to cope up with the pandemic situation and to improve their quality of life.

Keywords: Emotional well-being, COVID-19 pandemic

Introduction
The novel coronavirus outbreak had occurred in Wuhan (Hubei, China) in December 2019 and evolves rapidly throughout the world. The World Health Organization (WHO) characterized COVID-19 as a pandemic in March 2020. This crisis has caused immense stress on governments, institutions, and the world population. Delirium, psychosis, severe anxiety, and depression have been well observed during this pandemic [1]. The Centers for Disease Control and Prevention (CDC) reported that pandemics are marked by disrupted sleep cycles, concentration difficulty, fear and excessive worry about one's own life and their loved ones', and increased substance abuse [2].

During turbulent times like the current pandemic, undesirable stress states are commonly reported, usually characterised by physical/psychological arousal and pressure bearing down on both daily existence and sense of well-being. When a negative life event is encountered, these stress states and the perception of stress itself can also be exacerbated by the overall lack of relations with others that serve to maintain a general well-being. Accordingly, the current emergency might have a large emotional impact, with confinement and situations of uncertainty associated with increased negative affect and feelings [3].

The 2019 coronavirus disease (COVID-19) caused by the novel coronavirus (SARS-CoV-2) began in the city of Wuhan in China and spread quickly around the world, generating a global health crisis of massive proportions. As a result of this pandemic, people found themselves forced to cope with new emotional challenges and particularly with feelings of stress, uncertainty and fear. COVID-19 poses a real threat to physical and emotional health [4]. Indeed, previous research on viruses shows that pandemic situations exert an emotional impact on people's levels of stress and resilience [5].

During the COVID-19 outbreak, studies have already examined insomnia and psychological well-being (e.g. depressive and anxiety symptoms and psychological distress) among Chinese healthcare workers [6].

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Gavidia M (2020) illustrates that 88% of employees in an American sample reported moderate to extreme stress levels during COVID-19.6 In a study measuring the psychological impact of COVID-19 in China, 26% reported that they suffered from mild to moderate depression, 4.3% had severe depression, and over one third reported moderate to severe anxiety [7]. People with families and children tend to have a higher level of stress [8].

Another survey in China reported that COVID-19 has caused high levels of emotional stress [9].

The present pandemic has invoked a lot of stress in the general population. A study by Zhang and Ma on the local residents in China showed that 52.1% of the participants felt horrified and apprehensive about the pandemic [10].

A small set of studies have shown that self-isolation and quarantine following previous virus outbreaks (e.g., SARS, H1N1) may produce negative psychological effects (Brooks *et al.*, 2020). In a Chinese sample one month into the COVID-19 outbreak, the well-being of those who were highly physically active prior to the outbreak was particularly sensitive to the severity of the outbreak in their local area [11].

Loneliness, a negative subjective experience in an individual which arises when social relations and interactions are perceived to be insufficient, has been identified as a potential consequence of the mandatory lockdown imposed by the government to limit the spread of the coronavirus infection. Various studies have estimated that at least 38% to 50% of young people aged 18-24 years old experienced higher levels of loneliness during the mandatory lockdown, with women having higher odds of experiencing loneliness than men. Mounting evidence has shown a higher prevalence rate of loneliness among young people during the COVID-19 pandemic, when compared to older adults**.** Loneliness is an important health concern that has been strongly associated with various adverse mental and psychological consequences. Evidence has identified loneliness as a strong precursor of stress, depression, anxiety, and suicide, which could potentially exacerbate pre-existing psychological and mental issues. Recent studies have shown that social isolation and loneliness due to home confinement measure increase the risk of psychological distress, depression, and anxiety in an individual, with a longer duration of loneliness considered as a strong precursor of adverse psychiatric symptoms [12].

A study was conducted for the general public in China to better understand their levels of psychological impact, anxiety, depression, and stress during the initial stage of the COVID-19 outbreak. The results suggested that 53.8% of respondents rated the psychological impact of the outbreak as moderate or severe; 16.5% reported moderate to severe depressive symptoms; 28.8% reported moderate to severe anxiety symptoms, and 8.1% reported moderate to severe stress levels. Most respondents spent 20–24 h per day at home (84.7%); they were worried about their family members contracting COVID-19 (75.2%) [13].

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Caregivers are essential for helping children maintain emotional wellbeing. Throughout the pandemic, caregivers were encouraged to reassure children that adults that they trust (e.g., doctors, nurses, police, teachers) are doing everything they can to learn about the disease to help keep them safe. Also, caregivers can give children a sense of control by letting them know what they can do to help limit the spread of the virus (e.g., washing their hands and coughing and sneezing into their sleeve or a tissue) [15].

The purpose of the study is (1) To assess the Emotional wellbeing among individuals during COVID pandemic in urban (Mappedu) & rural (Poonamallee) area. (2) To compare the Emotional wellbeing during COVID pandemic between individuals in urban (Mappedu) & rural (Poonamallee) area. (3) To associate the level of emotional well-being during COVID pandemic among individuals with their selected demographic variables in urban (Mappedu) & rural (Poonamallee) area.

Methods and material

A quantitative approach with descriptive research design was used to conduct the study in Chennai. 60 samples (30 – Urban, 30 – Rural) were selected by using Non-probability convenient sampling technique. The criteria for sample selection were the individuals who were willing to participate in study, individuals with no co-morbidities and individuals who can speak and read Tamil. The exclusion criterion was individuals who are not willing to participate in the study. The data collection was done with prior permission from the head of the area Thirumazhsai and Mappedu. The investigator induced and explained the purpose of the study to samples and the written informed consent. A questionnaire was divided into two sections which include, Section A - Background variable, Section B consists of level of emotional scale. The investigator distributed the questionnaire to the individuals and requested them to give their correct responses against each question. Each individual took approximately 20-30 minutes to fill the questionnaire. The collected data was then organized and compiled for further data analysis and interpretation.

Result and discussion
Section A: Description of the demographic variables of the individuals in urban and rural area.

Table 1: Frequency and percentage distribution of demographic variables of individuals in urban and rural area. N = 60(30+30)

Demographic Variables	Urban		Rural	
	No.	%	No.	%
Gender				
Male	16	53.3	21	70.0
Female	14	46.7	9	30.0
Age				
20 – 30	9	30.0	0	0
30 – 40	19	63.3	24	80.0
40 – 50	2	6.7	6	20.0
Education				
Uneducated	14	46.7	7	23.3
Education (High school)	12	40.0	19	63.4
Degree / Higher studies	4	13.3	4	13.3
Employment				
Employed (full time / part time)	19	63.3	27	90.0
Unemployed	11	36.7	3	10.0
Homemakers / others	-	-	-	-
Financial income				
5,000 – 10,000	20	66.7	16	53.3
10,000 – 20,000	6	20.0	6	20.0
Above 20,000	4	13.3	8	26.7
Marital status				
Married	30	100.0	29	96.7
Unmarried	0	0	1	3.3
Separated / Divorced	-	-	-	-
Habits				
Smoking / Alcohol	7	23.3	6	20.0
Drugs	-	-	-	-
None	23	76.7	24	80.0

The table 1 shows that, most of the individuals in the urban area, 16(53.3%) were male, 19(63.3%) were aged between 30- 40 years, 14(46.7%) were uneducated, 19(63.3%) were employed (full time / part time), 20(66.7%) had a financial income of 5,000 – 10,000, 30(100%) were married and 23(76.7%) had no habits.

The table 1 also shows that, most of the individuals in the rural area, 21(70%) were male, 24(80%) were aged between 30- 40 years, 19(63.4%) were educated (High school), 27(90%) were employed (full time / part time), 16(53.3%) had a financial income of 5,000 – 10,000, 29(96.7%) were married and 24(80%) had no habits.

Section B: Assessment of level of emotional well-being among individuals in urban and rural area during COVID pandemic.

Table 2: Frequency and percentage distribution of level of emotional well-being during COVID pandemic among individuals in urban and rural area. N = 60(30+30)

Level of Emotional Well-being	Urban		Rural	
	No.	%	No.	%
Mild (1 – 25)	-	-	-	-
Moderate (26 – 50)	16	53.33	29	96.67
Severe (51 – 75)	14	46.67	1	3.33

The above table 2 shows that in urban area, 16(53.33%) had moderate level of emotional well – being and 14(46.67%) had severe level of emotional well-being among individuals during COVID pandemic.

The above table 2 also shows that in rural area, 29(96.67%) had moderate level of emotional well – being and only 1(3.33%) had severe level of emotional well-being among individuals during COVID pandemic.
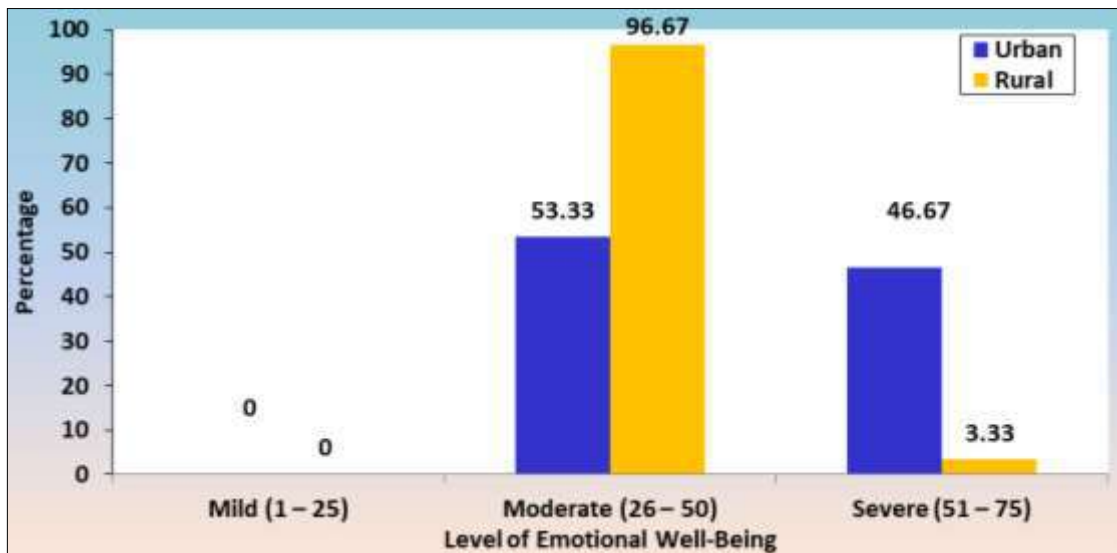
Fig 1: Percentage distribution of level of emotional well-being during COVID pandemic among individuals in urban and rural area.

Section C: Comparison of emotional well-being scores during COVID pandemic between individuals in urban and rural area.

Table 3: Comparison of emotional well-being scores during COVID pandemic between individuals in urban and rural area. N = 60(30+30)

Area	Mean	S.D	Student Independent 't' test value
Urban	49.67	4.09	t = 5.007
Rural	44.73	3.51	p = 0.0001, S***

***p<0.001, S – Significant

The table 3 portrays that the mean score of well-being in urban area was 49.67 with standard deviation of 4.09 and the mean score of well-being in rural area was 44.73 with standard deviation of 3.51. The calculated student independent 't' test value of t=5.007 was found to be statistically significant at p<0.001 level. This clearly infers that there was significant difference between the level of emotional well-being during COVID pandemic among individuals in urban and rural area.

Section D: Association of level of emotional well-being with selected demographic variables.

Table 4: Association of level of emotional well-being during COVID pandemic among individuals in urban area with their selected demographic variables. n = 30

Demographic Variables	Mild		Moderate		Severe		Chi-Square Value
	No.	%	No.	%	No.	%	
Gender							χ^2=0.117 d.f=1
Male	-	-	9	30.0	7	23.3	
Female	-	-	7	23.3	7	23.3	p = 0.732 N.S
Age							χ^2=0.923 d.f=2
20 – 30	-	-	6	20.0	3	10.0	
30 – 40	-	-	9	30.0	10	33.4	p = 0.630
40 – 50	-	-	1	3.3	1	3.3	N.S
Education							χ^2=1.349 d.f=2
Uneducated	-	-	9	30.0	5	16.7	
Education (High school)	-	-	5	16.7	7	23.3	p = 0.509
Degree / Higher studies	-	-	2	6.7	2	6.7	N.S
Employment							χ^2=2.010 d.f=1
Employed (full time / part time)	-	-	12	40.0	7	23.3	
Unemployed	-	-	4	13.4	7	23.3	p = 0.156
Homemakers / others	-	-	-	-	-	-	N.S
Financial income							χ^2=0.871 d.f=2
5,000 – 10,000	-	-	10	33.3	10	33.4	
10,000 – 20,000	-	-	3	10.0	3	10.0	p = 0.647
Above 20,000	-	-	3	10.0	1	3.3	N.S
Marital status							
Married	-	-	16	53.3	14	46.7	
Unmarried	-	-	-	-	-	-	-
Separated / Divorced	-	-	-	-	-	-	
Habits							χ^2=0.403

Smoking/Alcohol	-	-	3	10.0	4	13.3	d.f=1
Drugs	-	-	-	-	-	-	p = 0.526
None	-	-	13	43.4	10	33.3	N.S

N.S – Not Significant

The table 4 shows that none of the demographic variables had shown statistically significant association with level of emotional well-being during COVID pandemic among individuals residing in urban area.

Table 5: Association of level of emotional well-being during COVID pandemic among individuals in rural area with their selected demographic variables. n = 30

Demographic Variables	Mild		Moderate		Severe		Chi-Square Value
	No.	%	No.	%	No.	%	
Gender							χ^2=0.443 d.f=1
Male	-	-	20	66.7	1	3.3	
Female	-	-	9	30.0	0	0	p = 0.506 N.S
Age							χ^2=0.259 d.f=1
20 – 30	-	-	-	-	-	-	
30 – 40	-	-	23	76.7	1	3.3	p = 0.611
40 – 50	-	-	6	20.0	0	0	N.S
Education							χ^2=0.599 d.f=2
Uneducated	-	-	7	23.4	0	0	
Education (High school)	-	-	18	60.0	1	3.3	p = 0.741
Degree / Higher studies	-	-	4	13.3	0	0	N.S
Employment							χ^2=0.115 d.f=1
Employed (full time / part time)	-	-	26	86.7	1	3.3	
Unemployed	-	-	3	10.0	0	0	p = 0.735
Homemakers / others	-	-	-	-	-	-	N.S
Financial income							χ^2=4.138 d.f=2
5,000 – 10,000	-	-	16	53.3	0	0	
10,000 – 20,000	-	-	5	16.7	1	3.3	p = 0.126
Above 20,000	-	-	8	26.7	0	0	N.S
Marital status							χ^2=0.036 d.f=1
Married	-	-	28	93.4	1	3.3	
Unmarried	-	-	1	3.3	0	0	p = 0.850
Separated / Divorced	-	-	-	-	-	-	N.S
Habits							χ^2=0.259 d.f=1
Smoking / Alcohol	-	-	6	20.0	0	0	
Drugs	-	-	-	-	-	-	p = 0.611
None	-	-	23	76.7	1	3.3	N.S

N.S – Not Significant

The table 5 shows that none of the demographic variables had shown statistically significant association with level of emotional well-being during COVID pandemic among individuals residing in rural area.

Conclusion
The analysis revealed that majority of the individuals had impact in their emotional well-being in the urban area than the rural area. There was a significance difference in the level of emotional well-being among the individuals between the two areas. The study findings suggest that necessary health and mental health related counseling can be arranged for the individuals to cope up with the pandemic situation and to improve their quality of life.

The conflict of interest
The authors declare no conflicts of interest.

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