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Psycho-social impact of pandemic among COVID-19 survivors

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Abstract

Background: The clobber of COVID-19 pandemic has been an unprecedented public health challenge that disrupted psycho-social resilience of the society projecting an ultimatum since SARS outbreak 2003. Considering the trend, it was decided to ascertain the psyche and mind-set of 72 COVID survivors (actual patients) those came in contact with the scholar during the pandemic in 2020-21 in Kolkata, India.

Methods: A descriptive study employing convenient sampling, conducted by data collection through questionnaire that included socio-demographic and psycho-social data during Aug-Sep 2022. Psycho-social data included perception on health risk, social support, psychological reserve and psychological distress on 5-point Likert scale and was analyzed through suitable descriptive statistics.

Result: Study found the basic traits of survivors like age, sex, employment, job-loss, co-morbidity and occurrence pattern of COVID-19 similar to other documented studies in India. The subjects displayed high health risk perception, satisfaction in Govt. regulation and other social services including food/provisions, need for ever-sought-after social support (57-63%), high psychological distress (82-88%) in the background strong psychological reserve (47-62%) indicating considerable agony during hard trying time.

Conclusion: It is recommended that public health administration must conduct mental health audits during epidemic outbreaks for efficient management of community distress and provide online psycho-therapy in addition to traditional support.

Key words: Pandemic; Psycho-social Impact; Psychological Distress; Psychological Reserve

1. Introduction

The expletive of invective COVID-19 has been an unflinching public health challenge that disrupted the psycho-social make-up of the society and reflected an ultimatum since SARS outbreak in 2003.¹ Psychological distress is a state of emotional misery characterized by symptoms of depression and anxiety, that's known as a common mental health problem in the community.² In general, collective mental health issues aren't much acknowledged in communities, therefore often go unnoticed. Confinement to physical spaces, quarantine, lack of mobility, panic buying, fear of contraction, loss of income, adjustment to new normal and witnessing suffering of others were some of the practical realities affecting the overall well-being during the lock-down.³ In general Indian studies have been more intangible with rarity of empirical evidence on assessment of psychological effects in response to COVID-19.^{4,5}

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Thinking through the trend, it was thought prudent to ascertain the psyche and mind-set of 72 COVID survivors (actual patients) those came in contact with the scholar during the pandemic 2020-21.

2. Material and methods

A recall approach was followed during August – September 2022 to cover 72 COVID survivors (suffered from COVID-19 during 2020-2021) who came in contact with the investigator all through the pandemic either seeking actual, virtual or telephonic consultations for various reasons related to COVID-19 infection. Sample size was calculated on the basis of incidence of COVID-19 in Kolkata (2.26%) considering total cases in 2021 as documented 3.37 Lacs in a population of 14.9 Million approximating to a sample of 36 at 5% error.⁶ However, as 72 COVID survivors registered for the study, all were included.

An invitation to participate was sent through e-mode. The participants were informed about the background, purpose and objective of the study highlighting the fact that the participation being voluntary and non-interventional of any kind. The participants were given option to skip answering any question or withdraw any time if so wished. Nominal roll of consenting members along with their address and mobile no. were recorded. Institutional ethical clearance was taken. Only patients having RTPCR +ve result from Govt/ Pvt. Hospitals/clinic during pandemic were included.

A pertinent questionnaire was organized after reviewing existing literature incorporating required adjustments due to local factors and issues. Socio-economic status was decided by modified BG Prasad's scale.⁷ The data collection instrument consisted of two parts; first part included details of personal attributes including socio-demographic factors and second part incorporated details of Health related risk assessment, Community risk factors, Psychological Capital and Psychological Distress of the survivor during the pandemic.

Health related risk appraisal was done on 5 point Likert scale (1 = not serious to 5 = extremely serious) on self-ascribed 3 traits i.e. perceived seriousness of COVID-19 infection, adherence to preventive measures and health-care seeking mind-set. Community risk was ascertained through Trust in Govt. Actions, Social Support and Efficiency of Public Distribution System (PDS). Trust in Govt. actions was established on 5 point Likert scale (5 = strongly agree to 1 = strongly disagree) on 05 counts i.e. imposition of lock-down, implementation of new-norms, expansion of COVID care hospitals, vaccination policy and availability of treatment modalities.

Social Support risk was evaluated through modified social support parameters on 5 point Likert scale (5 = very true to 1 = definitely false) for Interpersonal Social Support system having factors like person available - to listen to your issues, to distract you from worries, to extend help when needed, to offer home-based care in spite of your illness and to support in decision making.⁸ Availability and accessibility to basic daily needs that included food items, medicines, electricity and internet connection were adjudged on a 5-point scale (1 = unsatisfactory to 5 = highly satisfactory).

Psychological capital has been defined as an individual's positive psychological reserve; was measured through a modified PCQ-12⁹ that assessed four integrating dimensions namely, self-efficacy (motivation, strength & follow behaviour changes), hope (positive outlook, desire to overcome, suppress negative emotions & happiness with the present), optimism (realistic thinking & flexibility in dealing) and resilience (accept reality, adapting to new conventions, accept unexpected changes) on a 5-point scale (1 = strongly disagree to 5 = strongly agree)

Psychological distress was evaluated using modified Kessler Distress scale (K6).¹⁰ The items used for screening major depression and generalized anxiety disorder. The K6 consists of six questions that ask respondents how frequently during the pandemic they felt: 1) nervous; 2) hopeless; 3) restless or fidgety; 4) so dejected that nothing could cheer up (depressed); 5) that everything is an effort (effort); and 6) worthless. For each of these questions, the K6 included five response options: 'never', 'a little of the time', 'some of the time', 'most of the time' and 'all of the time'. Each item had five options with modified score from 5 (never) to 1 (all of the time).

The instrument was made in English & local language for convenience of the participants. Data obtained was assimilated, tabulated and organized for accuracy, entirety and reliability. Data was analyzed & interpreted using descriptive statistics i.e. frequency, mean, percentage, standard deviation and inter-quartile range (IQR). Chi-square test was applied to assess relation in qualitative frame like certain risks with selected socio-demographic variables.

Overall psycho-social risks were graded as favorable and unfavorable from the mean score of the 5-point Likert scale.

3. Results

Table 1 Socio-demographic attributes of COVID-19 patients

Personal Attributes	Sub-attributes	Contracted in 2020 (n ₁ -31)	Contracted in 2021 (n ₂ -41)	Significance
Age (n-72)	20 - 30 years	2 (6.45)	3(7.31)	Chi-sq – 0.077, NS
	31 - 40 years	8(25.81)	11(26.83)	
	41 - 50 years	15(48.38)	20(48.78)	
	51 years and above	6(19.35)	7(17.07)	
Gender (n-72)	Male	19(61.29)	25(60.97)	Chi-sq – 0.0007, NS
	Female	12(38.71)	16(39.02)	
Religion (n-72)	Hindu	29(93.54)	38(92.68)	Chi-sq – 0.02, NS
	Muslim	2(6.45)	3(7.31)	
Education (n-72)	Graduate	19(61.29)	25(60.97)	Chi-sq – 0.0007, NS
	Post-graduate	12(38.71)	16(39.02)	
Working status (n-72)	Employed	23(74.19)	38(92.68)	Chi-sq – 7.27, p<0.05 p-0.02
	Lost job	7(22.58)	1(2.44)	
	Unemployed	1(3.23)	2(4.88)	
Working org (n-69) (n ₁ -30, n ₂ -39)	Govt. services	23(76.67)	36(92.30)	Chi-sq – 3.34, NS
	Private org	7(23.32)	3(7.69)	
SES (n-72)	Higher	27(87.09)	36(87.80)	Chi-sq – 0.008, NS
	Upper middle	4(12.90)	5(12.19)	
Co-morbidities (n-36) (n-20, n ₂ -16)	Hypertension	10(50.00)	4(25.00)	Chi-sq – 8.97, p<0.05 p-0.03
	Diabetes	8(40.00)	3(18.75)	
	CAD	1(5.00)	5(31.25)	
	Others	1(5.00)	4(25.00)	
Months of COVID Acquisition (n-72)	May	2(5.88)	16(35.56)	Chi-sq – 29.8, p<0.05 p-0.00001
	Jun	2(8.82)	14(35.56)	
	July	7(23.52)	6(15.56)	
	Aug	8(26.47)	4(11.11)	
	September	12(35.29)	1(2.22)	
Admitted to Hospital (n-72)		27(87.09)	25(60.97)	Chi-sq – 6.00, p<0.05
Addiction (n-72)	Tobacco	8(25.80)	3(7.31)	Chi-sq – 8.67, p<0.05 p-0.03
	Alcohol	1(3.22)	3(7.31)	
	Tobacco & Alcohol	10(32.25)	10(24.39)	

There were 31 & 41 individuals who contracted COVID-19 in 2020 & 2021 respectively as depicted in Table-1. Majority of the subjects belonged to 41-50 years age group (48% and above) in both the clusters followed by 31-40 years age group (25.8% & 26.8% respectively).

Large percentage of affected were Hindu (93%) male (61% & above) and educated to graduate level (around 61%) in both the groups. 74% & 93% were employed correspondingly as stated; significantly higher no. of affected (22.5%) lost job during 2020. 77-92% of the employed were benefited by jobs in Govt. sector. 20(64.5%) & 16 (39%) respondents had co-morbidities respectively, of which hypertension in the first group and coronary artery disease (CAD) in the second were predominant. More than 35% of the groups contracted COVID-19 in the month of May/June '21 and September '20 respectively. Variation in seasonal distribution found significant. Significantly higher proportions (87%) were admitted in hospital in first wave as compared to the second (61%). Mostly the contacts of both sets of patients were quarantined at home and significantly higher proportions (61%) of the first group had one or other addiction.

Table 2 Health risk assessment

Statements	NS*	N*	LS*	MS*	ES*	Mean SD	Median IQR(1-4)
Perceived seriousness of acquiring COVID-19	5(6.9)	9(12.5)	24(33.3)	21(29.2)	13(18.1)	3.4± 1.04	3, 2
Seriousness in adherence to preventive measures	3(4.1)	6(8.3)	17(23.6)	30(41.7)	16(22.2)	3.7± 1.04	4, 2
Seriousness in health-care seeking	5(6.9)	10(13.9)	26(36.1)	22(30.6)	9(12.9)	3.3 ± 1.01	3, 2

*ES-Extremely serious, MS- Moderately serious, LS- Less serious, N- No comment, NS- Not serious (ES-5 to NS- 1) Fig. in the parenthesis indicate percentage

Respondents perceived well the COVID-19 related risks including chance of acquiring infection, adherence to preventive measures and health care seeking seriously indicated by the fact that means ranged between 3.3 to 3.7 with inter-quartile range (IQR) of 2 in all the indices reflecting polarization towards 'moderately serious' to 'extremely serious' (Table-2).

Table 3 Trust in Govt. actions

Statements	SD*	DA*	N*	A*	SA*	Mean SD	Median & IQR
Imposition of lockdown	5(6.9)	9(12.5)	24(33.3)	21(29.2)	13(18.1)	3.4± 1.04	3, 2
Implementation of new-norms	4(5.6)	7(9.7)	17(23.6)	30(41.7)	14(19.4)	3.6± 1.06	4, 2
Expansion of COVID care hospitals	4(5.6)	7(9.7)	15(20.8)	30(41.7)	16(22.2)	3.6± 1.2	4, 2
Vaccination policy	5(6.9)	9(12.5)	15(20.8)	30(41.7)	13(18.1)	3.5± 1.2	4, 2
Availability of treatment modalities	4(5.6)	9(12.5)	13(18.1)	30(41.7)	16(22.2)	3.6± 1.2	4, 2

*SD-Strongly disagree, DA- Disagree, N-No comment, A- Agree, SA- Strongly agree (SD -1 to SA-5). Fig. in the parenthesis indicate percentage

Subjects displayed trust in Govt action for all the public health regulations and social restrictions where-in the mean ranged 3.4 to 3.6 with IQR of 2 on each count indicating inclination towards agreement towards Govt. action and social restrictions (Table-3).

Social support from the neighbors, relatives and other related ones was perceived ever-wanted among half of the respondents (Table-4). The means for all the counts like listening to one's problem, absolving worries, extending help, offering care when sick and supporting in decision making, ranged from 3.2 to 3.4 with a median of 3. Around 37.2 - 43.1 % individuals were only positive in receiving support.

Table 4 Interpersonal social support during pandemic

Statements	DF*	NT*	N*	ST*	VT*	Mean SD	Median IQR(4-1)
Someone listened your problems	9(12.5)	14(19.4)	15(20.8)	21(29.2)	13(18.1)	3.2± 1.2	3, 3
Someone diverted you from worries	5(6.9)	10(13.9)	26(36.1)	22(30.6)	9(12.5)	3.3 ±1.01	3, 2
Someone extended help when needed	10(13.8)	13(18.1)	15(20.8)	21(29.2)	13(18.1)	3.2± 1.2	3, 3
Someone offered care in spite of your illness	5(6.9)	9(12.5)	24(33.3)	21(29.2)	13(18.1)	3.4± 1.04	3, 2
Someone supported in decision making	11(15.3)	12(16.7)	15(20.8)	21(29.2)	13(18.1)	3.2± 1.2	3, 3

*DF-Definitely false *NT-Not so true, *N- No comment, *ST-Some extent true, *VT-Very true, (DF-1 to VT-5)

Table 5 Public distribution & communication system

Statements	US*	LS*	N*	MS*	HS*	Mean±SD	Median IQR(4-1)
Availability of food items	5(6.9)	9(12.5)	24(33.3)	21(29.2)	13(18.1)	3.4± 1.04	3, 2
Availability of medicines	5(6.9)	9(12.5)	15(20.8)	30(41.7)	13(18.1)	3.5± 1.2	4, 2
Availability of electricity	4(5.6)	7(9.7)	17(23.6)	30(41.7)	14(19.4)	3.6± 1.06	4, 2
Availability of internet link	4(5.6)	7(9.7)	15(20.8)	30(41.7)	16(22.2)	3.6± 1.2	4, 2
Operation of mobile services	3(4.1)	6(8.3)	17(23.6)	30(41.7)	16(22.2)	3.7± 1.04	4, 2

*US- Unsatisfactory, *LS- Less satisfactory, *N- No comment, *MS- Moderately satisfactory, *HS- Highly satisfactory, (US-1 to HS-5)

Public distribution & communication system in the realm of food, medicines, electricity, mobile services and internet link were stated to be moderate to highly satisfactory (47.3 to 63.9%) with the range of means from 3.4 to 3.7 having the median of 4 (Table-5). Only 12.4 to 19.4% expressed dissatisfaction while 21 to 33% remained non-committal.

Table 6 Positive Psychological reserve

Statements	SD*	DA*	N*	A*	SA*	Mean±SD	Median IQR(4-1)
Have motivation to follow health instructions	5(6.9)	9(12.5)	15(20.8)	31(43.0)	12(16.7)	3.5± 1.2	4,2
Have high mental strength to overcome pandemic following advisories	6(8.3)	9(12.5)	14(19.4)	31(43.0)	12(16.7)	3.5± 1.1	4,2
Have the impetus to adopt behavioural changes	5(6.9)	9(12.5)	24(33.3)	21(29.2)	13(18.1)	3.4±1.04	3, 2
Feel that calamity will end soon	5(6.9)	7(9.7)	17(23.6)	30(41.7)	15(20.8)	3.6±1.06	4, 2
Work hard not to contract COVID-19 again	4(5.6)	8(11.1)	15(20.8)	29(40.3)	16(22.2)	3.6± 1.1	4, 2
Can suppress negative feeling	5(6.9)	9(12.5)	24(33.3)	21(29.2)	13(18.1)	3.4±1.04	3, 2
Generally satisfied in the present	6(8.3)	9(12.5)	14(19.4)	31(43.0)	12(16.7)	3.5± 1.1	4,2
Can adapt to new situations	5(6.9)	9(12.5)	24(33.3)	21(29.2)	13(18.1)	3.4±1.04	3, 2
Can continue in new situations	5(6.9)	9(12.5)	24(33.3)	21(29.2)	13(18.1)	3.4± .04	3, 2
Pandemic is a reality	5(6.9)	7(9.7)	17(23.6)	30(41.7)	15(20.8)	3.6±1.06	4, 2
Need to adjust with new norms	5(6.9)	9(12.5)	24(33.3)	21(29.2)	13(18.1)	3.4±1.04	3, 2
Job loss in Lock-Down was unexpected	5(6.9)	9(12.5)	24(33.3)	21(29.2)	13(18.1)	3.4±1.04	3, 2

*SD-Strongly disagree, DA- Disagree, N-No comment, A-Agree, SA-Strongly agree (SD-1 to SA-5)

Table-6 shows the psychological reserve among the residents. High mean score of 3.5-3.6 was seen for parameters like motivation to follow health instructions, strength to overcome pandemic following advisories, feeling that calamity would end, taking all precautions not to contract COVID-19 and considering pandemic a reality. Mean score on other parameters like adopting behavioral changes, suppress negative feeling, adaptation & continuation to new situation and the unexpectedness of job loss was 3.4. Generally 47 to 62% subjects expressed in favor of positive desirable traits indicating optimistic frame of mind.

Table 7 Psychological distress (Modified Kessler)

Self ascribed feeling while suffering with COVID-19	*AT	*MT	*ST	*LT	N*	Mean±SD	Median IQR(4-1)
Nervous	5(6.9)	9(12.5)	24(33.3)	21(29.2)	13(18.1)	3.4± 1.04	3, 2
Hopeless	5(6.9)	10(13.9)	26(36.1)	22(30.6)	9(12.5)	3.3 ± 1.01	3, 2
Restless	5(6.9)	14(19.4)	22(30.6)	22(30.6)	9(12.5)	3.2± 1.2	3, 3
So dejected that nothing could cheer up (depressed)	10(13.8)	13(18.1)	15(20.8)	21(29.2)	13(18.1)	3.2± 1.2	3, 3
That everything was an effort	4(5.6)	10(13.9)	24(33.3)	21(29.2)	13(18.1)	3.4± 1.04	3, 2
Worthless	9(12.5)	14(19.4)	15(20.8)	21(29.2)	13(18.1)	3.2± 1.2	3, 3

*AT- All of the time, MT- Most of the time, ST- Some of the time, LT- A little of the time, N- Never. AT-1 to N-5 giving a score range 1-5

Psychological distress was exhibited by most of the sufferers barring 12-18% subjects who never experienced any distress as stated (Table-7). 59(82%) subjects suffered from nervousness and experienced the need of executing effort to accomplish daily errand and itineraries displaying a mean score of 3.4 with median 3. 87.5 to 88% of the subjects had hopelessness, restlessness as well as dejection with mean score of 3.2 to 3.3 portraying an undesirable depressive trend.

4. Discussion

The study included patients from both first and second phase of COVID-19 pandemic in Kolkata, West Bengal during 2020 & 2021. Affected individuals hailed from different age groups, educational and economic status. Majority belonged to 41-50 years age group (48%) followed by 31-40 years group (above 25%). Preponderantly educated employed men (61%) were affected indicating their possible vulnerability to COVID-19. A recent study documented consistent preponderance of males (65%) compared to females (35%) among COVID-19 patients in all age categories.¹¹ The researchers consider higher rates of smoking, lesser hand washing, existing respiratory illness and biological difference between sexes as driving force for higher infection rate among males.¹² Preventive measures to avoid COVID-19 were found significantly associated with the gender where females noticed to have been strict followers compared to males.¹³

Co-morbidities existed in 65% & 39% respondents respectively of the corresponding phases, of which hypertension in the first group and CAD in second found predominant. Recent studies documented that 20–51% of patients of COVID-19 had one or more co-morbidity with diabetes (10–20%), hypertension (10–15%), cardio and cerebro-vascular diseases (7–40%) being the common.^{14, 15} Elderly adults with co-morbidities are often vulnerable to unexpected outcome resulting in fear, anxiety and stress.¹⁶

More than 35% of the groups contracted COVID-19 in of May/June 2021 and September 2020 respectively with significant seasonal variation. Reportedly the crests of epidemicity were reached in these months in India during the year 2020 & 2021 respectively.¹⁷ Seasonal variations has been a well-established criteria for many respiratory viral infections including COVID-19 indicating association between temperature, humidity, UV radiations and contagion presence; however other analyses have failed to show any credible role of climate particularly when the population immunity is low due to a newly introduced contagion.^{18,19} Governmental non-pharmaceutical interventions (NPIs) like lock-down, closure of Govt. offices, educational institutions, malls & movie halls resulted in waxing and waning of infection rate in consecutive waves since early 2020, effect of which could be crucial than environmental determinants.²⁰ Significantly 87% of the subjects were admitted in the hospital during the first wave as compared to only 61% in second however, there were no fatalities.

During the second wave in India, the proportion of active cases that needed hospital care remained generally in the range of 20-23 percent. ²¹ Significantly higher proportions (61%) of the first group had one or other addiction. Socio-demographic traits and the dynamics of the disease transmission among the subjects in the present endeavor showed commonality in most of the facets with recently published works probably reflective of convincing internal validity of the sample.

Health risk assessment reflected moderate to extreme seriousness among the subjects in respect to chance of acquiring infection, adherence to preventive measures and health care seeking. This could be due to the fact that altogether 50% were co-morbid in the age range of 41-50 years. Studies documented that presence of pre-existing medical condition is common stressor and can manifest in diverse way. ²² Social supports from the acquaintances and contacts was sensed imperative among half of the respondents. Means for all the basic elements of the social support fabric ranged from 3.2 to 3.4 signifying availability of support and around 37 - 44 % were suggestive of the same. Humans are gregarious in nature and need social links in lives for prolific existence. Social support in a calamitous situation is highly protective and present findings resonate to the same. ²³ Consumer supply & communication in context of food, medicines, electricity, mobile services and internet were stated to be moderate to highly satisfactory (47 to 64%) with high range of means from 3.4 to 3.7 expressing inclination of the opinions towards satisfaction. When basic needs are fulfilled sufficiently, that gives a general sense of satisfaction. Lock down, panic buying, commercial hoarding and uncalled for domestic storage could accentuate stress in general. ⁴

High mean score of 3.4 to 3.6 was observed for the building blocks of psychological reserve with some of the facets having median as high as 4, reflective of positive reserve. A meta-analysis has documented that high psychological reserve protects by enhancing determination and thought process that suppress giving-up, despair and hopelessness. ²⁴ Those with low Psychological reserve are more prone to stress. The review further suggested that power of positive & logical thinking has a motivating impact that can enhance internalization, determination and pathways thinking that may suppress negative thoughts, anguish and there- by miseries. ²⁴ Except for 12 – 18% subjects, rest all suffered from some form of psychological distress during the pandemic. Although this appears contradictory to the finding of high psychological reserve, yet in the thick pandemic with high mortal fear such distress is probably inevitable. Apparently confinement to closed spaces, lack of mobility, panic buying, fear of infection, loss of job and adaptation to the new norms were some of the observed collective experiences, affecting the overall well-being during the lock-down. ²⁵ COVID-19 ripples introduced additional stressors from media that further impinged the mental health of the general populace making them vulnerable to psychological disorders.

Studies revealed that high distress and anxiety due to COVID-19 resulted in poor psychological well-being and exaggerated the pre-existing mental health conditions. ^{26,27}

The study reflected the distress experienced by the COVID-19 survivors in Kolkata during pandemic and offers pragmatic directions for stress management collectively at community levels during such apocalyptic crisis. Based on the observations, it is proposed that public health machinery must conduct mental health audits during epidemic outbreaks, which are crucial for efficient management of community distress. This can assist in supporting targeted psycho-social interventions for the vulnerable groups (elderly, co-morbid, working). Govt. initiatives like toll-free help-lines, Arogya setu and tele-counselling services for psychological assistance during the COVID-19 pandemic are few of the many. Similarly, booklets and literature on stress management during COVID-19 by yoga, music and meditation have been made available to the public on the MOHFW-GOI website. ²⁸ However, for effective applicability of such interventions, the services and conveniences need to be customized according to the appropriate needs of the susceptible groups. Psychological intervention on the specific subject who is more likely to develop pathology and suffering is needed. The Lancet Global Mental Health Commission reported that use of digital technologies can provide mental health interventions in order to reduce anxiety & stress levels thereby increase self-efficacy. ²⁹ Online psychological services avoid geographical barriers and are suitable to become a useful integrated tool in addition to traditional psychotherapy. ³⁰ It appears possible that technological advances might lead to a de-personalization of relationships, forcing the sense of closeness, at least virtually resulting in alleviation of anxiety and stresses.

Convenient sampling with limited sample size having most of the members from higher socio-economic status is the potential limitation that may influence the generalization of the findings. Study being post-dated recall during the ebbing calamity, exact expression of psyche could probably have been under-scored as compared to real time.

5. Conclusion

However, the study generated detail objective analysis of the mind-frame of the COVID affected individuals of the recent past that's likely to throw light in the future planning appending wisdom to the body of scientific episteme. A

longitudinal recourse considering interpersonal factors like family dynamics, relationship with near ones and association with day-to-day acquaintances during trying time, could be studied to delineate the influence on distress & misery, is recommended for future studies.

Compliance with ethical standards

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COVID survivors who helped to conduct the study

Statement of informed consent

Informed individual consent was taken before initiation of the study.

Author's Contribution

JM – Concept & design, data collection & sequencing, first draft, analysis & statistical interpretation of result, reviewed literature, prepared and revised final manuscript.

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