



Psychological Resilience towards COVID-19 amongst Emergency Medical Professionals in Pune (India)

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Authors' contributions

This work was carried out in collaboration among all authors. All authors read and approved the final manuscript.

Article Information

DOI: 10.9734/JPRI/2021/v33i42A32379

Editor(s):

(1) Dr. Vasudevan Mani, Qassim University, Saudi Arabia.

(2) Dr. Paola Angelini, University of Perugia, Italy.

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Complete Peer review History: <https://www.sdiarticle4.com/review-history/72733>

Original Research Article

Received 15 June 2021
Accepted 20 August 2021
Published 25 August 2021

ABSTRACT

Aim: The surge of COVID 19 infection across the globe has put tremendous pressure on Healthcare Professionals worldwide. Emergency Medical Professionals are first responders and hence bear the brunt of exposure to the virus as well as dealing with critically ill patients. The aim of the study is to assess psychological resilience towards COVID 19 amongst Emergency Medical Professionals.

Study Design: Descriptive Study.

Place and Duration of Study: Symbiosis Centre for Health Skills, Pune in April 2021.

Methodology: The study was conducted amongst 120 Emergency Medical Professionals in Pune, India. The data was collected during the month of April 2021. Professionals who have completed Post Graduate Diploma in Emergency Medical Services and working in COVID centres for at least one year were included in the study. A 38-item questionnaire was developed for frontline Emergency Medical Professionals and included questions adapted from the tools which are available in public domain.

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Results and Discussion: Working in a stressful environment along with continuous fear of self-exposure and risk of transmission to family members affects the efficacy and productivity of Emergency Medical Services Professionals. Debriefing, training for effective 'breaking bad news' stress management workshops and counselling sessions should be integrated into their work routine to enhance their psychological capacity.

Conclusion: The findings indicate that even after a year of serving COVID 19 patients, Emergency Medical Professionals demonstrate a high degree of resilience. Yet there are areas requiring improvement which need to be focussed upon immediately in the interest of the mental well-being of Emergency Medical Professionals.

Keywords: Emergency medical professionals; psychological resilience; COVID 19 pandemic; anxiety; stress; mental wellbeing.

1. INTRODUCTION

The entire world is battling with COVID- 19 infection at different levels, and it has claimed innumerable lives in its wake. This is an unusual and overwhelming period for everyone, further compounded by the uncertainty associated with the spread and impact of the infection.

The surge of COVID 19 infection across the globe has put tremendous pressure on Healthcare Professionals worldwide. Healthcare Professionals are accustomed to working in high-pressure environments. They possess significant emotional resilience to deal with different kinds of emergencies at workplace. Nevertheless, COVID-19 has presented Healthcare Professionals with a unique set of challenges. The stress of caring for patients is amplified manifold in the setting of a virus with human-human transmission and no specific lifesaving treatment available till date. Healthcare Professionals have been battling the pandemic for more than a year now and continuous influx of ill patients along with extremely limited resources add to the stress of the healthcare Professionals [1].

Healthcare Professionals are constantly placing themselves at considerable risk while frequently getting exposed to the illness too. Furthermore, death of patients afflicted by the virus adds to the mental trauma. Balancing their own families amidst fulfilling their professional duties is another contributing factor for triggering mental stress. Continuous exposure to such life and death situations and putting oneself at risk creates a sense of fear and unease in the minds of healthcare [2,3,4,5].

In the last few decades Healthcare Professionals have faced, psychological disorders like Depression, anxiety and posttraumatic

stress during the SARS and Ebola virus pandemics [6].

Healthcare Professionals are left with no choice in face of the pandemic, and they are expected to respond with agility irrespective of their mental state. This requires psychological resilience, defined as the ability of the individual to withstand hardship and adapt themselves to changes caused by negative and stressful events in a flexible way and resume their normal lives albeit the stressful event [7,8]. As a natural response to an emergency, Smith et al. [9] in a study in 2020 pointed out that psychological resilience in particular rises during the pandemic.

The American Psychological Association in 2020 [10], stated that it is imperative to promote psychological resilience of Healthcare Professionals during the pandemic. It depends on depends on the environmental interaction such as family, community and society. Hence it should be approached with an ecological perspective including both individual factors and environmental factors [11].

It is paramount to preserve the emotional and mental wellbeing of healthcare Professionals. Cullen et al. [12] in a study in 2020 pointed out that of the Healthcare Professionals particularly those working in public health, primary care, emergency service and intensive care are at the greatest risk of developing psychological symptoms.

Emergency Medical Professionals are first responders and hence bear the brunt of exposure to the virus as well as dealing with critically ill patients [13]. To deal with the difficult situation effectively, Emergency Medical Professionals would require a high degree of psychological resilience [1,14].

A study conducted by Bozag et al. [15] concluded that doctors tend to have lower psychological resilience.

The present study aims to assess the baseline psychological resilience amongst Emergency Medical Professionals actively working in the care of COVID 19 patients for more than a year.

2. MATERIALS AND METHODS

The study was conducted amongst 120 Emergency Medical Professionals in Pune, India. The data was collected during the month of April 2021. Professionals who are pursuing or have completed Post Graduate Diploma in Emergency Medical Services (PGDEMS) and working in COVID centres for at least one year were included in the study.

A 38 item questionnaire was developed for frontline Emergency Medical Professionals which included questions from Patient Healthcare Questionnaire [16] (9 items), General Anxiety Disorder Scale [17] (7 items), Brief Resilience Scale [18] (6 items), Index of Interprofessional Team Collaboration [19] (7 items), Medical Outcome Social Support Study Scale [20] (3 items) and Gratitude Questionnaire [21] (6 items). All the questions are adapted from the tools which are available in public domain.

The Patient Healthcare Questionnaire and General Anxiety Disorder Scale, both have good reliability of Cronbach's alpha of 0.799 and 0.89 respectively. The 16 items from these questionnaires focus on anxiety due to exposure to COVID 19 and subsequent risk involved. Brief Resilience Scale having Cronbach's alpha value 0.71 includes questions regarding accepting and coping with the COVID situation. Index of Interprofessional Team Collaboration with Cronbach's alpha 0.91 assesses work pride and meaning, feeling valued and supported. Medical Outcome Social Support Study Scale and Gratitude Questionnaire having a reliability of Cronbach's alpha of 0.97 and 0.70 respectively, emphasised on positive emotions, perceived social support, protective psychosocial characteristics.

The Questionnaire was administered to the respondents through online mode after obtaining informed consent. Participation in the study was voluntary. Responding to all questions was mandatory. The respondents were given two days to complete the questionnaire. Any queries

pertaining to questionnaire were clarified during data collection by the researchers.

All the 120 respondents reverted with the completely filled questionnaire. The data was tabulated and statistically analysed with the help SPSS version 23.

3. RESULTS AND DISCUSSION

Table 1. shows the demographic characteristics of the respondents.

The COVID 19 pandemic spread in a noticeably short span of time and caught everyone unaware [22]. This situation has been extremely overwhelming for everyone in general and Healthcare Professionals in particular. Healthcare Professionals have been subjected to an immense amount of physical and psychological stress for a prolonged period of time [23].

As shown in Fig. 1., Nearly half of the respondents complained of the dearth of personal protective equipment and COVID 19 testing kits. Majority of the respondents expressed a sense of dilemma between the desire to help patients and the risk to their family and loved ones.

Many of the respondents have been redeployed to the COVID 19 unit due to staff shortage. Lack of professional exposure to their own area of specialization for such a long duration of time has augmented their stress and anxiety. The paucity of sufficient good quality PPE kits and COVID 19 testing kits further adds to the anxiety and fear of facing this highly infectious virus daily.

Majority of the respondents have encountered COVID 19 at both professional and personal levels. The respondents felt that continuous exposure to the tragedy unfolding at their workplaces and the inability to help critical patients contribute to the mental stress borne by them.

Despite having faced the virus themselves or seen their near and dear ones facing the virus, yet majority of the respondents were torn between their desire to help patients and their duty towards loved ones. This indicates the degree of psychological stress faced by Emergency Medical Professionals during the last year.

Table 1 :Demographic data

Sr.No	Demographics
1.	Age Group: 21-25 : 70 (59%) 26-30 : 41 (34%) >30: 9 (7%)
2.	Gender: Male- 39 (32%) Female- 81(68%)
3.	Work Experience: 0- 5 years- 110 (92%) >5 years- 10 (8%)
4.	Educational Qualification BHMS with PGDEMS - 64 (53%) BAMS with PGDEMS - 35 (29%) BUMS with PGDEMS - 21 (18%)
5.	Number of Hours worked in COVID care/week 24 to 48 - 62 (52%) 49 to 72 - 36 (30%) >72- 22 (18%)
6.	Number of COVID Patients assessed/treated till date 1-50 : 60 (50%) 51-100: 15 (12%) >100: 45 (38%)

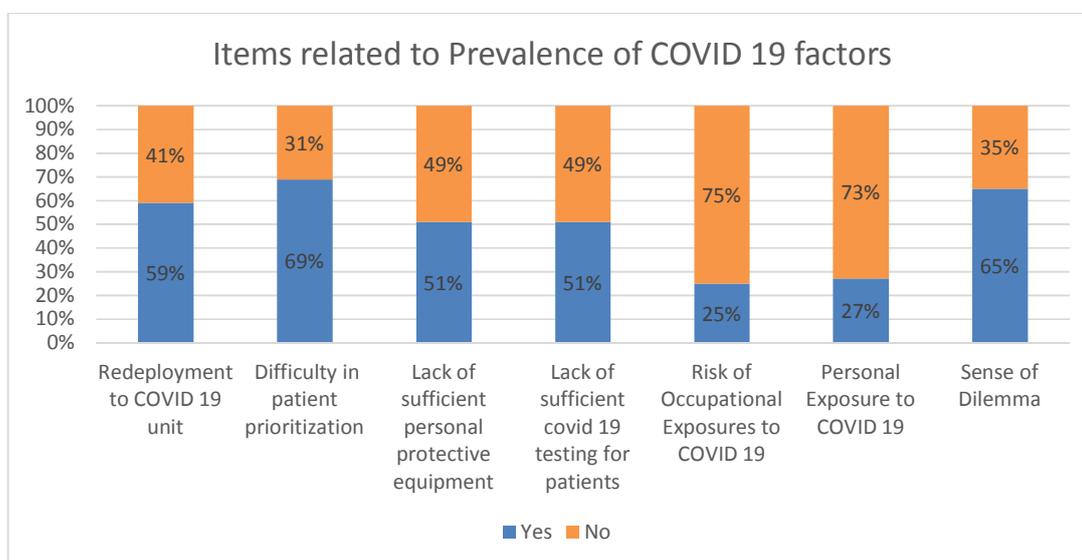


Fig. 1. Items related to prevalence of COVID 19 factors

As seen in Fig. 2. 87% of the respondents expressed confidence that they accepted the situation and were adequately prepared to perform their professional duties effectively.

The respondents expressed confidence in their training adequacy and delegation of duties. This finding is highly encouraging as it reflects the robust preparedness and coping of the first line

healthcare cadre in spite of their minimal work experience.

As seen in Fig. 3, half of the respondents reported a high degree of camaraderie amongst team members and support from hospital leadership. Majority respondents felt valued for their service amongst team members and hospital leadership.

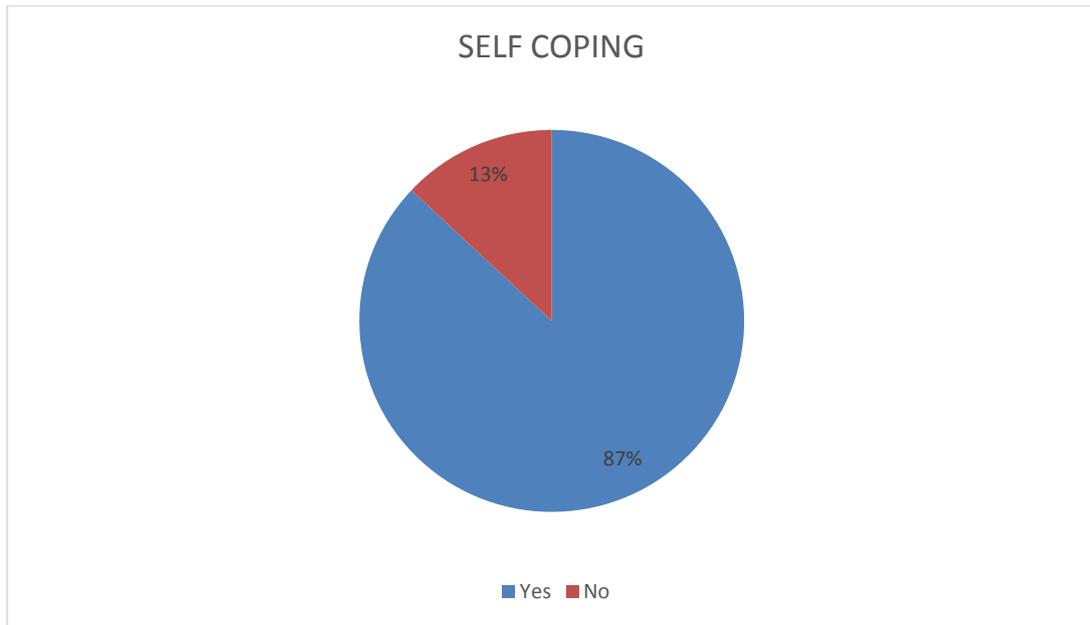


Fig. 2. Self coping

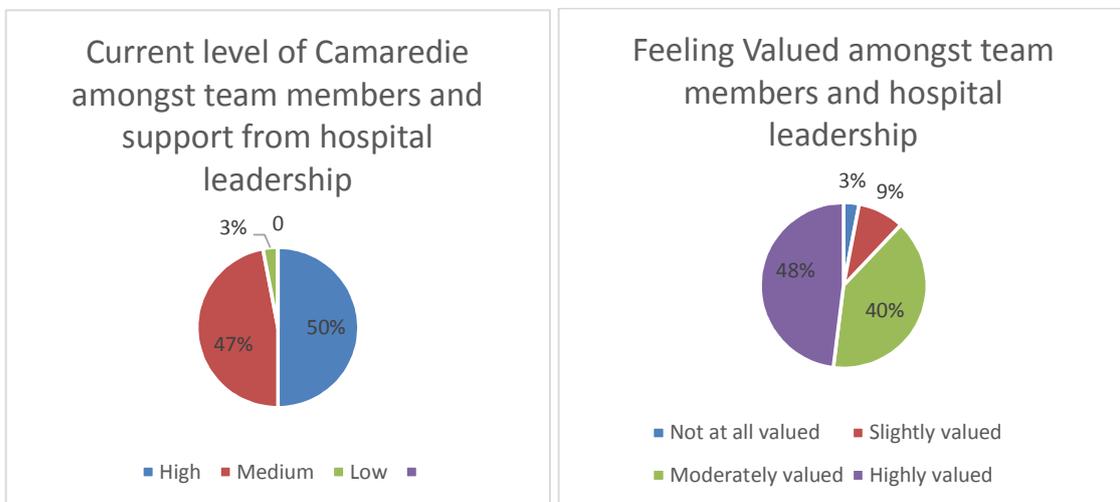


Fig. 3. Current level of camaredie & feeling valued amongst team members and hospital leadership

The respondents exuded a high degree of satisfaction with respect to hospital leadership and team performance. COVID 19 management requires close coordination amongst doctors, nurses, laboratory, and support staff. Positive team dynamics contributes to the development of healthy psychological resilience [24].

As seen in Fig. 4, only half of the respondents claimed to possess social support most or all the time during the pandemic.

The items pertaining to the Medical Outcome Social Support Study Scale support exposed the vulnerability of Emergency Medical Professionals in terms of social support required during these difficult times. Emotional support especially during period of illness plays a crucial role in the healing of the individual [25]. Some respondents rued the absence of adequate social support in these challenging times. This requires immediate core correction.

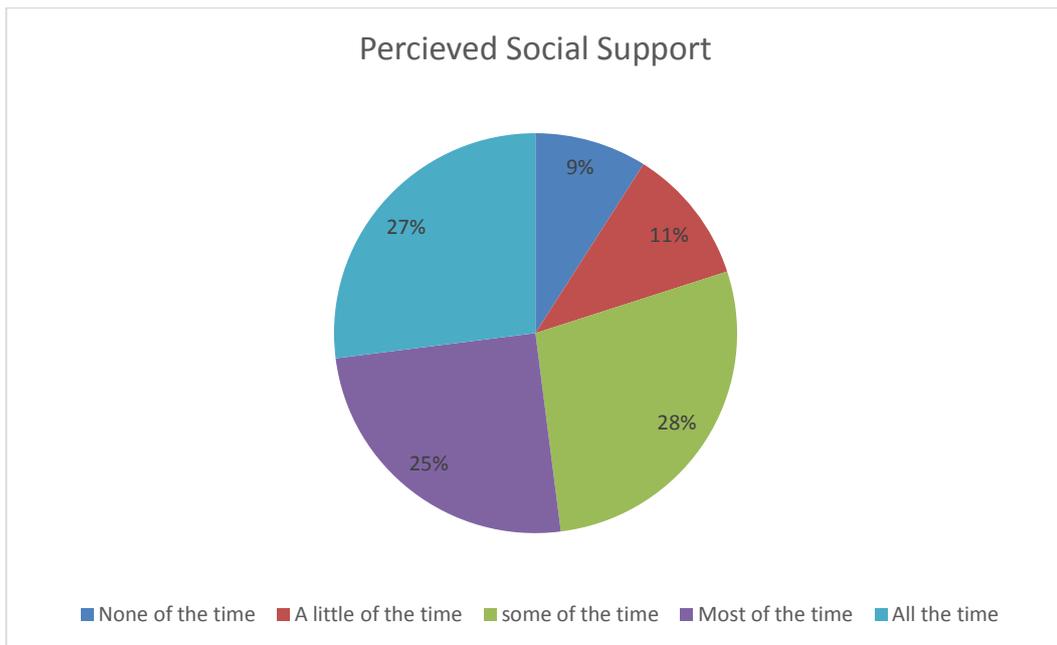


Fig. 4. Perceived social support

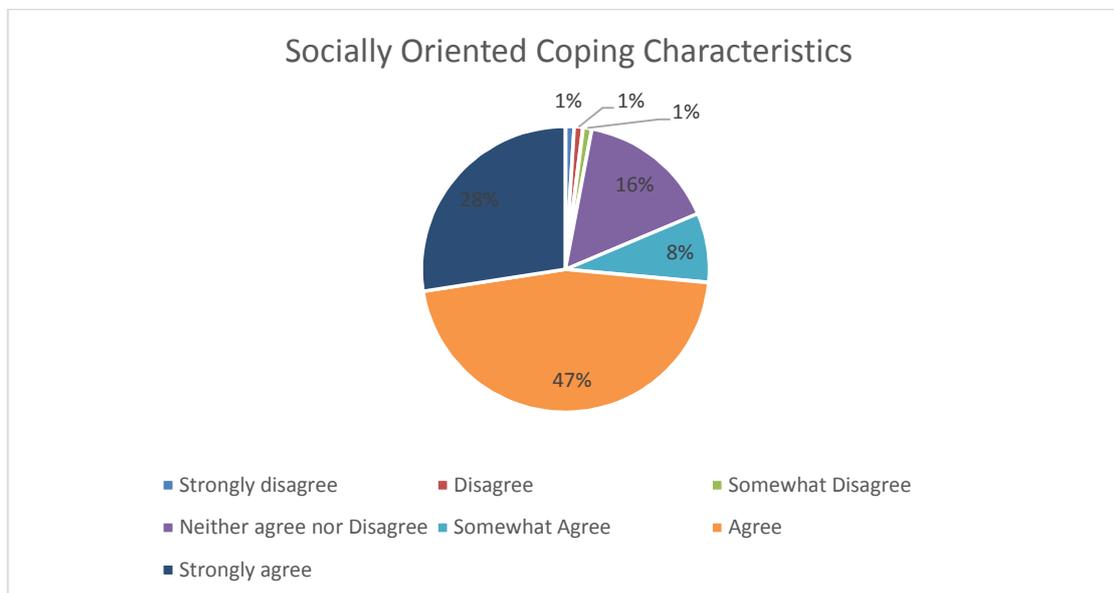


Fig. 5. Socially oriented coping characteristics

As seen in Fig. 5., majority of the respondents expressed a sense of gratitude and were open to new professional challenges while embracing the uncertainty surrounding the pandemic.

Interestingly, the respondents found these difficult times as a steppingstone to success. This sense of gratitude and attitude of taking

everything in stride contributes to a higher psychological resilience and is welcome.

Working in a stressful environment along with continuous fear of self-exposure and risk of transmission to family members affects the efficacy and productivity of Emergency Medical Professionals. Emergency Medical Professionals

are important pillars in the healthcare delivery system during the COVID 19 pandemic and hence it is imperative that they be provided with tools to boost their psychological resilience. Debriefing, training for effective 'breaking bad news', stress management workshops, team building exercises and counselling sessions should be integrated into their work routine to enhance their psychological capacity. Provision of safe working environment, adequate good quality protective gear and testing kits should be made mandatory in all COVID 19 care institutions.

4. CONCLUSION

The study was aimed at assessing the degree of psychological resilience amongst Emergency Medical Professionals. The findings indicate that even after a year of serving COVID 19 patients, Emergency Medical Professionals demonstrate a high degree of resilience. Yet there are areas requiring improvement which need to be focused upon immediately in the interest of the mental wellbeing of Emergency Medical Professionals. The study is limited by its small sample size and further study with larger sample size can help develop greater perspective.

CONSENT

As per International Standard or university standard, respondents' written consent has been collected and preserved by the author(s).

ETHICAL APPROVAL

The ethical clearance has been obtained from Independent Ethics Committee, SIU.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

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Peer-review history:
The peer review history for this paper can be accessed here:
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