



MITIGATING PSYCHOLOGICAL DISTRESS BY COPING MECHANISMS IN RESIDENT DOCTORS DURING COVID PANDEMIC IN TERTIARY CARE HOSPITALS-A CROSS SECTIONAL STUDY

Dr.Lavish Chayal

Third year resident, Department of Psychiatry, Grant Government medical college, Mumbai.

Dr.Richa Panpaliya

Third year resident, Department of Psychiatry, Grant Government medical college, Mumbai

Dr.Prakhar Jain*

Assistant Professor, Department of Psychiatry, Grant Government medical college, Mumbai*Corresponding Author

ABSTRACT During COVID-19 pandemic, resident doctors working in hospitals were exposed to extremely long and stressful working condition. The world had seen a pandemic after a decade and the healthcare professionals were never trained to handle such an emergency. Thus, the aim of the study was to assess the coping mechanism in resident doctors needed for stress management. Method-A cross-sectional, observational study was conducted in 300 resident doctors working in Covid-19 Pandemic in tertiary care hospital after obtaining permission from the Institutional Ethics Committee (IEC). Data on sociodemographic variables, COVID-19-related job stressors, psychological distress and coping mechanism was collected over 3 months, data was entered, coded in excel and analysed using SPSS software version 25. All the resident doctors in age group 18-65 years. working in COVID-19 Pandemic. willing to participate in the study were included while non cooperative resident doctors having pre-existing medical illness were excluded. **Results**-It was found that 41% residents reported not having adequate sleep due to various reasons and most reported stress as one of the major factor. 16% reported to have suffered from some or the other psychiatric symptoms and majority amongst them (52%) had these symptoms in last 6 months. Active coping (5.3 ± 1.29) and acceptance (5.3 ± 1.35) were the most commonly used coping strategy for psychological distress and perceived stress by the residents. Self-distraction was the next common coping strategy used. **Conclusion**-It has been observed not only during Covid Pandemic, but also during other outbreaks that the resident doctors perceived high levels of stress. So it is necessary to monitor their mental health and to provide a base to address their job stress as well as training in developing healthy coping strategies.

KEYWORDS : COVID-19, job-related stressors, psychological distress, coping

INTRODUCTION

Health care professionals include hospital nurses and physicians who generally work in a high-pressure environment and are often required to deal with issues involving occupational stress.^{1,2} Medical residency is a period of significant emotional and physical stress, making it one of the most demanding and challenging stages in medical education and form majority of health care workers in hospitals.³ In addition to that, working during the a COVID-19 pandemic have put them under high pressure as they must maintain direct contact with COVID-19 patients and take care of them often under conditions of limited staff due to the fear of infection. They also face challenges related to work overload, high risk of infection for themselves and their family, insufficient supply of personal protective materials, long working hours, hectic duties and concerns about the possible insufficiency of hospital beds and medical equipment to care for future patients giving rise to complicated decisions.^{4,5}

The mental health problems of HWs would effect their attention, cognitive functioning, and clinical decision-making ultimately increasing the occurrence of medical errors and incidents, and risking life of patients. Pandemics could have a lasting effect on the overall wellbeing and could lead to thoughts of leaving job in them further leading to shortage of manpower.^{4,5,6,7} Hence, this study aims to study the sociodemographic characteristics, coping mechanism in resident doctors to deal with stress, and to suggest hospital support measures for the mental health problems of residents in the COVID-19 pandemic.

Methodology-A cross-sectional, observational study was conducted in 300 resident doctors working during Covid-19 Pandemic in tertiary care hospital after obtaining permission from the Institutional Ethics Committee (IEC) and written informed consent from residents. Data on various sociodemographic variables, COVID-19-related job stressors and coping strategies was collected over 3 months by interview method using semi structured questionnaire. All the resident doctors in age group 18-65 years working in COVID-19 Pandemic willing to participate in the study were included, while non cooperative resident doctors having pre-existing medical illness.were excluded.

The Brief-COPE is a 28 item self-report questionnaire designed to measure effective and ineffective ways to cope with a stressful life event.

The scale can determine someone's primary coping styles as either Approach Coping, or Avoidant Coping.

In addition, the following subscales are reported: Self-distraction, Active coping, Denial, Substance use, Use of emotional support, Use of instrumental support, Behavioural disengagement, Venting, Positive reframing, Planning, Humour, Acceptance, Religion, & Self-blame.

Data was entered, coded in excel and analysed using SPSS software version 25 Percentages for categorical data and mean and standard deviation for quantitative data were calculated.

Results

The mean age of the participants was 27.20 ± 2.239 years. There were more males (50.3%) than females (49.7%).Majority were Hindus belonging to upper middle class and were in First year residency. Most of them were unmarried

Table 1 General information of residents

Speciality of residents	Frequency(%)
Anaesthesia	21 (7%)
General Medicine	25 (8%)
Medicine and allied	74 (25%)
Surgery and allied	95 (32%)
Seniority	
1 st Year	168(56%)
2 nd Year	97(32%)
3 rd Year	35(12%)

193 (64.3%) residents engaged themselves into social media which was more easily available in mobile phone and laptop followed by OTT (156, 52%). Residents also pursued many hobbies during their free hours 93 (31%) of the residents used to connect daily with their family/loved ones. 37 (12.3%) residents have family history of psychiatric illness.while 23 (7.7%) residents have past history of psychiatric illness.

122 (40.7%) residents have history of substance abuse, out of which 116 (95%) residents have history of alcohol abuse, followed by cannabis (3, 2.5%) and other substance abuse (3, 2.5%).

41% residents reported to not have adequate sleep due to various reasons and most reported stress as one of the major factor. 16% reported to have suffered from some or the other psychiatric symptoms and majority amongst them (52%) had these symptoms in last 6 months. Active coping (5.3 ± 1.29) and acceptance (5.3 ± 1.35) were the most commonly used coping strategy for psychological distress and perceived stress by the residents followed by self-distraction

Table no 2-Coping strategies

	Coping Mechanism	Mean	Standard Deviation
Avoidance coping	Self-Distracton	5.27	1.27
	Denial	4.08	1.61
	Substance use	3.74	1.75
	Behavioural disengagement	4.11	1.58
	Venting	4.73	1.35
	Self-blame	4.22	1.62
	Mean avoidance coping	4.35	0.54
Approach coping	Active coping	5.3	1.29
	Emotional support	5.02	1.34
	Use of informational support	4.89	1.43
	Positive reframing	5.04	1.44
	Planning	5.1	1.35
	Acceptance	5.3	1.35
	Mean approach coping	5.1	0.16
Other coping	Humour	4.3	1.65
	Religion	4.4	1.56
	Mean other coping	4.35	0.07

Discussion

In our study the mean age of the participants was 27.20 ± 2.239 years and there were more males than females. A systematic review by Azam et al found that residents of younger age, female gender, unmarried status, certain specialties, and low level of job satisfaction are more likely to have stress.⁸

Coping strategies the residents use to manage stress can also influence their risk of experiencing burnout or stress. Some may target the source of problem, while others modify the emotional reaction to the problem. In addition, some coping strategies are believed dysfunctional.

Palupi in study in first year resident showed that there was no significant association between gender and burnout but maladaptive or dysfunctional coping had a significant positive correlation with emotional exhaustion and cynicism and suspicion. Adaptive coping was negative correlated with cynicism and a positive correlated with perception of personal accomplishment⁹

In Smith et al study it is seen that coping strategies are cognitive and behavioral efforts.¹⁰

Marin et al study reported The 'Coping Orientation for Problem Experiences' subscales together and explained 15% of the 'overload' 9% of the 'lack of development' and 21% of the 'neglect' which was mainly explained by 'venting of emotions', by 'cognitive avoidance and by behavioural disengagement respectively.¹¹

In Menaldi study it is seen that residents more often use adaptive than maladaptive coping strategies. Scores for problem-focused and emotion-focused strategies are generally higher than dysfunctional coping. Among dysfunctional coping, commonly used are self-distraction, venting, and self-blame findings similar to study³

The use of dysfunctional coping strategies is linked to higher emotional exhaustion and depersonalization of burnout but coping mechanism like problem-focused and emotion-focused strategies is linked to higher sense of personal accomplishment. Therefore appropriate identification and intervention of residents with dysfunctional coping strategies may be beneficial in reducing burnout risk.

CONCLUSIONS

It has been observed not only during Covid Pandemic, but also during other outbreaks that the residents perceived high levels of stress so it is necessary to monitor their mental health and to provide a base to address their job stressor concerns related to COVID-19, and also share and provide helpful coping strategies. These findings also leads to our understanding of the way in which the effectiveness of interventions may be improved, by influencing new treatments and preventive programmes using strategies for handling stress in the workplace.

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