



ASSESSMENT OF HEALTHCARE WORKERS' SELF-PERCEIVED SKILLS AND ATTITUDE FOLLOWING TRAINING OF ADULT CRITICAL CARE MANAGEMENT OF COVID-19 INFECTION

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ABSTRACT

During Covid-19 pandemic, the country has faced lack of trained healthcare professionals especially in Critical care Units. To overcome that, Institutional based critical care management training was conducted in different Medical colleges affiliated with tertiary care hospitals by state government. This study aims to assess the impact of training and critical care skills the medical and paramedical staff acquired related to Covid-19. An institution based cross sectional study was conducted in two Medical colleges of Ahmedabad among medical and paramedical staff who underwent Covid-19 critical care training. 107 valid responses from participants from two medical colleges, of which 38(35.5%) were from Junior Doctors, 45(42%) were Specialists and 24(22.4%) were Nursing staff and Paramedics. As a result, Most of them said their knowledge and skills were improved in basic emergency care and patient management during training. The results showed, that they have lack of confidence to manage the patients by their own, especially in ICU but they can assist under supervision, as they lack enough hands-on practice. Therefore, an effective educational training program focusing more on Practical on-field training to be implemented in smaller groups to ensure adequately trained and confident healthcare professionals during the next surge of Covid-19 Pandemic.

KEYWORDS : Covid-19, Critical care skills, Trained healthcare workers, Hands-on training

INTRODUCTION

Severe acute respiratory syndrome corona virus-2 (SARS- CoV-2) pandemic has caused phenomenal loss of lives and overburdened the health system in India. Low morale, fatigue, and inadequate knowledge among the healthcare workers are the perceived threats to pandemic control¹. Also the COVID-19 pandemic has brought countries' health services into sharp focus. While governments move to slow the spread of the virus, health workers, are on the front lines of the epidemic². To overcome scarcity of trained healthcare workers, our country faced during recent waves of Covid19 in past 2 years, Institutional based critical care management training was conducted in different Medical colleges affiliated with Tertiary care hospitals by Gujarat state government.

AIM

To assess the impact of training and critical care skills the healthcare professionals acquired related to Covid-19.

OBJECTIVES

- To evaluate self-perceived skill in relation with participant's qualification profile.
- To identify the areas of improvement while planning further training.

METHOD

Type of study: Cross-sectional study

An institution-based cross sectional study was conducted in two medical colleges of Ahmedabad among medical and paramedical staff who underwent Covid-19 critical care training. After taking the permission from concerned authority, Data collection was done by distributing pre-designed questionnaire among participants through personal visit in institute. The questionnaire consisted of 5 different components, (i) Triage & Emergency care (ii) Oxygen therapy (iii) Mechanical ventilation (iv) ICU management (v) Advanced critical care & management. As well as 4 open-ended questions, to be filled up by the participants regarding their training experience.

OBSERVATIONS

107 valid responses from participants from two medical colleges, of which 38(35.5%) were Junior Doctors, 45(42%) were Specialists (from Pre-clinical, Para-clinical, clinical branches) and 24(22.4%) were Nursing staff.

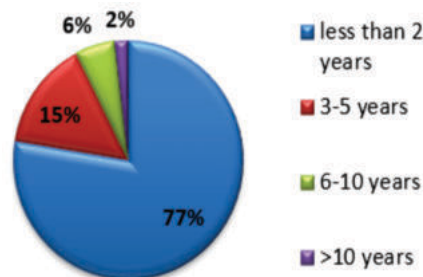


Figure 1: Total years of ICU experience among study participants

Table -1: Type of critical care skill & average numbers of responses in each category

Category	Can do with/without supervision	Need to learn more efficiently	Don't need to learn
Triage and Emergency care	32.3 (30.18%)	7.6(7.10%)	5.85(5.46%)
Oxygen Therapy	14.53 (13.57%)	8.45(7.89%)	6.8(6.355%)
Mechanical Ventilation	7.6 (7.10%)	13(12.14%)	11.6 (10.84%)
ICU management	16.25 (15.18%)	7.04(6.57%)	6.85(6.35%)
Advance critical care management	7.08 (6.61%)	13.58 (12.69%)	12.1 (11.30%)

It is clear (refer table 1) that participants responded "Can do with/without supervision" mainly in the categories which involved non-invasive types of skills .e.g. triage and emergency care, ICU management & oxygen therapy.

Table-2: Association of years of experience with skills of participants

Total years of work experience	Can do with/without supervision	Need to learn more efficient-ly	Can't do, Also don't need to learn	p-value
<2 years	20	9	3	0.48, df=6
3-5 years	13	7	1	
6-10 years	11	9	6	
>10 years	13	10	5	

*Chi-square test was applied at 95% CI

Table 2 showed there was no significant association between total years of work experience and skills of participants, as the healthcare workers included in this study belonged to different clinical/para-clinical/pre-clinical branches.

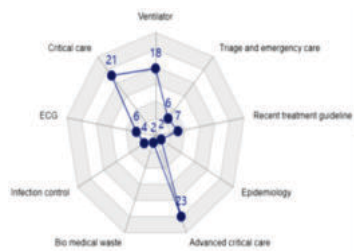


Figure 2: Spider web diagram showing participants' responses when asked about topics they need to learn to improve their work

CONCLUSIONS & RECOMMENDATIONS

Most of the participants said their knowledge and skills were improved in basic emergency care and patient management during training. But the results showed, that they had lack of confidence to manage the patients by their own, especially when it involved invasive ICU procedures.

So, an effective educational training program focusing more on practical on-field training should be implemented in smaller groups to ensure adequately trained and confident healthcare professionals during the next surge of Covid-19 or any similar pandemic.

Limitations

Subjective bias- As the information we collected , is what participant's self perceived assessment of the skills.

REFERENCES:

- Gopalakrishnan S, Kandasamy S, Abraham B, Senthilkumar M, Almohammed OA. Knowledge, Attitude, and Practices Associated With COVID-19 Among Healthcare Workers in Hospitals: A Cross-Sectional Study in India. *Frontiers in Public Health* [Internet]. 2021 [cited 2023 Jan 10];9. Available from: <https://www.readcube.com/articles/10.3389%2Fpubh.2021.787845>
- COVID-19: Are there enough health workers? [Internet]. ILOSTAT.2020 [cited 2023 Jan 10]. Available from: <https://ilostat.ilo.org/covid-19-are-there-enough-health-workers/>