

Communication Skill Training Levels among Critical Care Doctors in India

Justin Aryabhat Gopaldas¹, Nikhil Narayanaswamy², Narendra Prasad Chandregowda³

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ABSTRACT

Medical training programs outline the necessity of communication skills but there is likely a dearth of teaching at the bedside in part due to prioritization of other skills over communication or due to lack of opportunity. In India, the majority of critical care units are open in nature, and communication lead is likely to be taken by the primary specialty rather than the critical care doctors themselves. In the majority of the cases, the root cause analysis shows a lack of clear communication as a barrier. The sicker the patient, the higher the chance for anxiety and miscommunication among healthcare professionals as well as the family.

The current project aims to find the training levels in Indian critical care settings and draw conclusions to see if there are avenues to improve the process. This study was based on a web-based questionnaire that was sent out to 1,000 critical care doctors across India. Educational experience and learning of communication techniques/concepts were assessed using a modified educational experience and attitudes questionnaire. Baseline demographic data were obtained and results were tabulated across 193 complete responses, which consistently showed a disparity in perceived levels of competence across different mandatory aspects of communication.

Further, we find that though communication is a trainable skill, the mode of training has been largely reactive and has remained so for the last 20 years hinting at poor training in communication. Our survey suggests an urgent need for improvement of the training processes to reduce the burden of ethical, clinical, and legal dilemmas in critical care.

Keywords: Communication skills, End of life, Faculty development, Family meeting checklist, Intensive care unit communication, Medical interviewing, Violence against doctors.

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HIGHLIGHTS

- Intensive care unit (ICU) communication skills, in comparison to clinical skills, are often overlooked in the Indian critical care education. Types of ICU, opportunities, and teacher capabilities might influence communication skill training.
- Communication training has not evolved in India and remains passive. Training the trainer and trainee may lead to better end of life (EOL) and proactive communication.

INTRODUCTION

Critical care training programs in India as with the rest of the world outline the necessity of learning communication skills but there is a likely dearth of teaching at the bedside, in part due to prioritization of other skills and tasks over communication or due to lack of opportunity. Training and assessment records belonging to various critical care courses in India do not have similar weightage to communication as with clinical and procedural skills even though it is known to be a learned skill and should be treated like any other ICU procedure.¹

In India, the majority of critical care units are open in nature, and communication lead is likely to be taken by the primary specialty rather than the critical care doctors themselves thereby compounding the lack of opportunity.^{2,3} Burden of critical care training in India rests predominantly on private healthcare setup. This is in part due to infrastructure and lack of recognition of critical care as a specialty.⁴ In the current scenario of increased violence against healthcare workers and unusually high expectations of positive outcomes, in the majority of the cases, the root cause

^{1,3}Department of Critical Care Medicine, Manipal Hospitals, Bengaluru, Karnataka, India

²Department of Critical Care Medicine, Aster Whitefield Hospital, Bengaluru, Karnataka, India

Corresponding Author: Justin Aryabhat Gopaldas, Department of Critical Care Medicine, Manipal Hospitals, Bengaluru, Karnataka, India, Phone: +91 8884132998, e-mail: justin.a.gopaldas@gmail.com

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analysis shows a lack of clear communication as a barrier.^{5,6} Sicker the patient, the higher the chance for anxiety and miscommunication between healthcare professionals and the family.^{7–9} Formal courses to improve communication are sparse in India and usually run as a workshop session over a few hours and predominantly as part of a larger critical care conference.¹⁰ Undertaking an ICU family meeting is considered a procedure and the skill does improve with intervention (various teaching methods).¹

Based on the available literature and current healthcare practices, we hypothesize that the training levels among Indian critical care doctors will be low and might need improvement. The current project also aims to find the specific areas in relation to communication that were poorly taught during the critical care training period and find differences in trainees and independent practitioners to evaluate training pattern change over the years.

MATERIALS AND METHODS

Survey Development

We conducted a PubMed, MEDLINE, and Google Scholar literature search with index words being ICU communication, EOL, family meeting checklist, violence against Indian doctors, postgraduate training in communication among doctors, etc. This search allowed us to identify important questionnaires pertinent to our study. We had input from intensivist members from the local and state chapters of the Indian Society of Critical Care Medicine (ISCCM) and specialists from our institution.

The goal of adopting questionnaires from previously validated studies with inputs was to manage to have 20 or fewer items that could address the question raised in the hypothesis with the capture of relevant information about the respondents. The format of the e-questionnaire at its first circulation had 20 questions with binary responses (yes or no choice) available. It was to test the reliability of the link to open an online questionnaire irrespective of the route the link was communicated. The link to the questionnaire was sent *via* email or mobile application (WhatsApp) and noted to have 100% receipt.

Survey Testing

To ensure validity and ease of completion of the survey questionnaire (to improve response rate), the questionnaire was circulated to 20 adult intensivist members of the ISCCM local chapter during September 2019. They were able to answer the questionnaire in less than 2 minutes consistently. Following the input, the questionnaire was modified with two main stems that have 10 questions with binary responses (yes or no) each.

Survey Administration

The survey was sent to 1,000 practicing adult intensivists who are members of ISCCM across India. Intensivists were identified using the ISCCM database. We excluded retired intensivists and pediatric intensivists. In total, 1,000 critical care physicians were considered eligible. The study population was surveyed between October 2019 and December 2019.

Understanding Questionnaire

Only one aspect of the communication spectrum is appraised here being communication with patient/family or next of kin (NOK). We have not assessed interdisciplinary communication, communication with administrators, or communication-driven reduction in errors or misunderstandings leading to adverse events, etc.

The questionnaire has two main stems. The first one has 10 questions relating to skills that were taught during the training period of the individual clinician. These questions represent two aspects of training one may have undergone. One in situations where the clinician has no choice but to interact with the family or NOK (reactive), while the other assesses if the clinician was ever taught to be proactive and undertake the meeting without explicitly being forced by the clinical condition of the patient (proactive). The second stem involves 10 questions assessing if the individual clinician was taught specific techniques during their training period. In these 10 questions, two themes that look at the basic and advanced techniques of communication are assessed.

The study is approved by the Manipal Hospital Research Ethics Board, who waived the requirement for informed consent. If target respondents (>10%) had not responded to the e-questionnaire within 2 weeks of the initial mailing, a duplicate copy was sent.

Table 1: Background characteristics of doctors (N = 193)

Background characteristics	Frequency	Percentage
Age-group (years)		
25–30	29	15.0
31–35	99	51.3
36–40	36	18.7
>40	29	15.0
Years of experience in critical care		
<5 years	129	66.8
>5 years	64	33.2
Primary specialty		
Anesthesiology	148	76.7
Others	45	23.3
Critical care residency training obtained in		
India	176	91.2
Abroad	17	8.8

Poor response to both mailings was then contacted by a repeat WhatsApp link approximately 4 weeks after the second mailing, to urge them to complete the survey.

Data Collection

Baseline characteristics of the respondents that include age, gender, ICU setting and background speciality was collected along with responses to the two main stems (20 questions in total).

Statistical Analysis

Communication skills and techniques of doctors were considered as outcome variables. Background characteristics such as years of experience in critical care, primary specialty and residency training obtained from either India or abroad were considered as explanatory variables.

Descriptive analysis was carried out by frequency and proportion for background characteristics, communication skills and techniques. Communication skills and techniques questions were both divided two categories each as follows: (A) Basic and (B) advanced. There were four parameters in total: basic communication skills; advanced communication skills; basic communication techniques and advanced communication techniques. "Yes" was coded as 1 and No was coded as 0 for each question. The total score of each parameter was added up for each doctor.

An Independent t-test was used to compare the mean and standard deviation (SD) of these four parameters according to different explanatory variables; $p < 0.05$ was considered statistically significant. RStudio, version 1.2.1093, was used for statistical analysis (RStudio Team [2020]; RStudio: Integrated Development for R; RStudio, PBC, Boston, Massachusetts, USA: <http://www.rstudio.com/>).

RESULTS

A total of 193 responses were received (19.3%). A third of the respondents had more than 5 years of ICU experience (deemed suitable for independent practice). The majority (77%) of the respondents have anesthesia as their base specialty (Table 1). 9% of the respondents reported overseas training experience. Discussing uncertainty in illness trajectory (65%), facilitating a DNAR

Table 2: Communication skills among doctors (N = 193)

Variables	Yes		No	
	Frequency	Percentage	Frequency	Percentage
Basic skill				
Discuss uncertainty in the illness trajectory	127	65.8	66	34.2
Facilitate a DNR discussion	126	65.3	67	34.7
Deliver bad news	133	68.9	60	31.1
Document a family meeting	141	73.1	52	26.9
Advanced skill				
Assess patient and/or family concerns	101	52.3	92	47.7
Prepare for a family meeting	108	56.0	85	44.0
Lead/facilitate a family meeting	87	45.1	106	54.9
Elicit patient and/or family perceptions of illness	97	50.3	96	49.7
Attend to emotion	88	45.6	105	54.4
Foster shared decision-making	71	36.8	122	63.2

DNR, do not resuscitate

discussion (65%), delivering bad news (70%), and documenting a family meeting (75%) were the only skills taught to most of the respondents (Table 2). Advanced skills (Table 3) such as preparing the family for a meeting, assessing family concerns, leading or facilitating a family meeting, and attending to the emotional needs of the family were not adequately covered (<40%).

When assessing for associations, a training period of less than or more than 5 years as cutoff was applied with results, noting no difference with experience, except in one aspect of advanced techniques. With reference to training abroad, there is a significant association with better teaching exposure in all except basic skills where both groups are the same. Primary specialty (anesthesiology in comparison to others) was not associated with variable or higher training (Table 4).

DISCUSSION

Effective communication is a learned skill rather than an innate one.¹¹ Inadequate or ineffective communication impacts multiple facets of the patient–doctor relationship. It is now both understood and widely accepted that communication is the key link between effective medical and surgical treatment and perceived good outcomes by the patient. There is a general lack of literature evaluating communication skill training in the Indian scenario but not limited to critical care medicine.¹²

In the ICU, surrogate decision makers (SDM) expect honest, intelligible communication that can aid shared decision-making.¹³ Studies have shown that half of the families of the ICU patients

Table 3: Communication techniques among doctors (N = 193)

Variables	Yes		No	
	Frequency	Percentage	Frequency	Percentage
Basic technique				
SPIKES mnemonic for breaking bad news	64	33.2	129	66.8
NURSE mnemonic for attending to emotion	20	10.4	173	89.6
VALUE mnemonic for facilitating a family meeting	29	15.0	164	85.0
Document a family meeting in the medical record	126	65.3	67	34.7
Advanced technique				
Active listening	138	71.5	55	28.5
Tell me more	62	32.1	131	67.9
Patient-centered communication	99	51.3	94	48.7
Reflective questioning	44	22.8	149	77.2
Ask–tell–ask	84	43.5	109	56.5
Hope/worry technique for managing uncertainty	45	23.3	148	76.7

NURSE, name, understand, respect, support, explore; SPIKES, setting up, perception, invitation, knowledge, emotion, strategy and summarise; VALUE, value, acknowledge, listen, understand, elicit

Table 4: Comparison of advanced communication skills according to background characteristics

Variables	Advanced skills (Mean ± SD)	p-value
Years of experience in critical care		
<5 years	2.66 ± 2.10	0.066
>5 years	3.27 ± 2.24	
Primary specialty		
Anesthesiology	2.70 ± 2.16	0.066
Others	3.38 ± 2.09	
Residency training obtained in		
Abroad	4.29 ± 2.14	0.004
India	2.72 ± 2.12	

experience inadequate communication with their physicians, and healthcare providers often do not recognize poor family comprehension.⁹

The current survey asks the individual respondent about communication skill teaching during their training period. It

confirms the hypothesis that there is a clear lack of structured training to improve communication skills and that it has not changed in the two decades (as seen by the lack of difference between those under 5 or 5–20 years of experience). Independent practitioners (5 or more years of ICU experience) are likely to be of age more than 35 years and are from an anesthesia background. This is consistent with other Indian studies (along with 85% or more being open ICUs) and quite contrary to the European and North American literature.^{2,3} Irrespective of the specialty during postgraduation, the communication training seems to be very low (non-significant between anesthesia vs. other specialties).

The questionnaire is divided into two main areas for ease of interpretation. One area represents reactive and the other shows active skills and techniques. In reactive skills or techniques, the doctor has no choice but to engage with the family (commonly for breaking bad news, the family's insistence for an interview, an interview for consent, etc.). In contrast, the proactive process is where the clinician takes the lead in setting up the meeting, goes over various aspects of patient care in a structured manner irrespective of the clinical situation, and also provides emotional and psychological support (patient/family-centered decision communication).¹⁴ Survey findings suggest a predominantly reactive communication pattern (only basic skills are taught or acquired by two-thirds of the respondents during their training). Comparatively, only a third of the participants had training or exposure to advanced skills or techniques.

With respect to communication skill training, the Indian critical care setting is different from the Western setting predominantly in two aspects. One is the ICU environment and the other is the social aspect (SDM characteristics). The ICU environment brings skills of the teacher, opportunity (learn and practice under supervision) and variation in interpretation of the law relating to ICU care including end-of-life care). In India, open model and private healthcare provide the majority of critical care services (>80%). The open nature of ICU itself contributes to significant barriers to training as noted in studies from North America.^{15,16} In spite of the above, teachers are expected to unfold the curriculum to the prospective students but the survey confirms that it is not being done so for a long time bringing the skills of teachers into question. Coming to the SDM characteristics, diverse cultural, religious, and language preferences, and entrenched biases intermixed with economic profiles and types of healthcare systems at play make communication harder. With patient expectations changing and noting a change from paternalistic communication to consumerist relationships in the private sector, one needs to make efforts to learn or teach communication to transform this into shared decision-making. The current survey shows a clear finding where overseas (western) work or training exposure is associated with twice ($p = 0.004$) the chance of being trained or assessed in advanced skills (Table 4).

Indian critical care curricula from ISCCM, National Board of Examinations (NBE), and National Medical Commission (NMC) approved courses have included communication as a skill to be learned but with no specific details about the content, teaching method, or assessment patterns.¹⁷ This makes for a difficult position for teachers who themselves are less likely to have been trained in communication skills or assessed either during or after one's training. This allows, as the survey confirms, a passively learned and reactive mode of communication (often termed see one-do one-teach one) rather than a proactive and actively learned skill.

Training the teacher is likely to be the biggest obstacle in the Indian scenario.^{18,19}

Communication, like any procedure, should be evaluated periodically during training (log book with mention of skills and techniques used) along with insistence on active learning (undertaking supervised communication from an experienced trainer or attending courses that have ample time for role play, simulation, and video feedback) rather than a one-off evaluation as one station or as part of a clinical station at the end of the critical care training.

Being a survey, some unquantifiable biases could affect findings.²⁰ Other limitations being, the questionnaire used was part of a "before and after study." Its use was limited to aspects of communication with NOK in critical care settings. The questionnaire could be misunderstood for what each individual practitioner is confident in doing rather than what they were taught when they were a trainee making which might make the response to be falsely high.

Being the first-of-its-kind research into critical care training pertinent to communication skills in India, this study does have a few strengths. The questionnaire allows understanding of various aspects such as the proactive and reactive nature of communication and the difference between skills and techniques of communication, and allows for power calculation of sample size of a bigger before and after study.

CONCLUSION

Communication is a learned skill. This survey results point to limited exposure to active training in advanced skills and techniques during the last two decades among Indian critical care trainees. Communication skills that are commonly taught or learned during critical care training in India remain basic and reactive though various curricula (ISCCM, NMC, and NBE) emphasize structured training. Unless the trainee and, more importantly, the teacher have trained actively in communication skills, the benefits (e.g., reduced errors, conflicts, improved confidence in clinicians, the systems alike, etc.) of the same cannot be seen.

ORCID

Justin Aryabhat Gopaldas  <https://orcid.org/0000-0002-0420-6925>
Nikhil Narayanaswamy  <https://orcid.org/0000-0001-8985-0252>
Narendraprasad Chandregowda  <https://orcid.org/0000-0002-7095-0074>

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