Residents’ perceptions of communication skills in postgraduate medical training programs of Pakistan

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ABSTRACT

Background: The importance of communication skills in postgraduate medical training is likely to be highlighted given the convergence of research and educational forces. Assessment of these skills in residency training is vital since it can provide basis for policy undertaking among Pakistani medical academia for improving postgraduate training programs.

Aim: To assess the perceived status of communication skills of residents in different specialties.

Materials and Methods: A cross sectional survey was conducted in four teaching hospitals of Karachi between July 1999 and January 2001. A total of 455 residents in different residency programs were contacted. Residents registered both with College of Physicians and Surgeons of Pakistan and Postgraduate Medical Education office of selected hospitals were included in this study. Responses of residents were obtained on 5-point Likert scale. Indices were formed for three components of communication skills: informative, affective and professional communication.

Statistical Analysis: Differences between residents’ groups were assessed through analysis of variance.

Results: Total informative communication index was lowest for multi-disciplinary (12.05, SD = 4.87) and highest for surgical (15.27, SD = 2.51) residents. Total affective index was lowest for multi-disciplinary (12.58, SD = 5.68) and highest for medical (15.74, SD = 3.59) residents. The group differences for four groups of residency programs were not statistically significant for either professional attributes separately or for the total professional index.

Conclusions: The residency programs must establish goals, process and outcomes to incorporate communication skills in postgraduate medical training since this can enhance residents’ performance as effective health care providers. Accomplishment of better communication skills can be achieved if the importance of its teaching and training is valued by residency program coordinators.

KEY WORDS: Communication, residency, analysis of variance, Pakistan

Doctors need to communicate with patients in an effective manner so that they can deliver quality medical care. It is worth noting that effective communication helps in providing optimum information and psychological support to patients and helps in ensuring patient compliance.[1-5] Several studies have described different aspects of doctor-patient communications and have highlighted their influence on patient outcomes, as well. The Toronto consensus statement has attempted to address the issue of communication in clinical settings and has identified communication problems that affect patient outcome.[8] More recently, the Kalamazoo consensus statements have identified a set of essential elements in physician-patient communication and have also focused on professional interaction of physicians with colleagues.[9,10] As effective communication is a vital skill required to excel in research and education, the two other important fields of concern during post-graduate education, helping post-graduate medical students acquire these during residency training is of vital importance. However, most of the literature and studies in this regard relate to situation in developed countries and information relevant to communication skills of residents working in developing countries is lacking.

Resident doctors in Pakistan have certain unique problems in effectively communicating with patients: They often find it difficult to explain the medical terminologies to patients. Doctors receive their training in English, discuss patient-related issues with their seniors in English but are expected to converse in official language ‘Urdu’, or one of several regional languages while discussing with laypersons. The patient’s understanding of the disease and its progression depends upon the patient’s prior knowledge and on their emotional status. Given the low rates of literacy, patients may not be in a position to understand their condition in an appropriate manner.

When resident doctors communicate with patients, their mes-
sage is loaded with information about biomedical issues and is short on psychological support.\textsuperscript{[12,13]} It is possible that inadequate interaction could result in more admissions to the emergency areas and in patients switching from one physician to another.\textsuperscript{[14,15]} The same pattern of communication with an overload of biomedical material is seen in conversations that resident doctors carry out with their professional colleagues.\textsuperscript{[9,16]} Another significant impact of inadequate communication could be in resident doctors losing confidence at an initial stage of their training, due to lack of knowledge about and paucity of skills to implement specific communication strategies that they have to routinely use in their encounters with patients as well as colleagues.\textsuperscript{[5]} This paper reports results of an analytical study that was carried out to assess the perceived status of communication skills of residents completing their postgraduate requirements in various specialties, and to determine if the information conveyed to patients, understanding the psychosocial status of patients, as well as their professional interaction abilities varied amongst the specialties.

**Materials and Methods**

**Study design and setting**

A cross sectional survey was conducted between July 1999 and January 2001 in four teaching hospitals of Karachi that were selected on the basis of availability of wide-ranging infra structure for major residency programs at their premises, and their location in safe areas of Karachi. These institutions were accredited by the College of Physicians and Surgeons of Pakistan (CPSP) for postgraduate training. Resident doctors in 1-5 years of residency programs registered for their postgraduate training with the CPSP and Postgraduate Medical Education (PGME) office of the selected institutes formed the target population for the study. Resident doctors who had passed their Basic Sciences-Part I component of CPSP and were registered for Clinical Sciences-Part II component were also contacted.

**Study questionnaire and statistical analysis**

The study questionnaire consisted of 15 questions/attributes that assessed three dimensions structured into indices of communication skills, namely Informative index: conveying information to patients, Affective index: understanding psychosocial status of patients, and Professional index: interaction with professional colleagues. Each of these three indices was structured in 5 attributes. These questions/attributes were formulated after a thorough literature search and consultation with medical professionals. These attributes were obtained through responses of residents that were recorded on a 0 (‘0 = never’) to 4 (‘4 = always’) Likert scale (see appendix). The investigators assisted the residents in completing the questionnaire and care was taken to conduct the interview in seclusion to avoid prompting from colleagues. The questionnaire was not deposited to the resident at any time and they took approximately 20 minutes to complete it. The questionnaire was first pretested on the interns at one of the hospital who were not part of target population.\textsuperscript{[17]}

The data was analyzed using Statistical Package for Social Sciences (SPSS version 11.0). Residents from selected programs were divided into four broad groups: Specialist, Medical, Surgical, and Multi-disciplinary group. The division of residents into these groups was done on the basis of their functional association and liaison.\textsuperscript{[18,19]} Therefore analysis was done according to the programs that have almost similar goal of health care delivery system e.g., residents from neurology, paediatrics, psychiatry, and community medicine, were included in the Specialist group; internal medicine and family medicine residents in Medical group; residents from general surgery, neurosurgery, orthopaedics, urology, and obstetrics and gynaecology in Surgery group; and anaesthesiology, radiology, and pathology in Multi-disciplinary group.

The mean scores were calculated i.e., the scores obtained from every resident were added and then divided by 1705 (341×5) for each attribute in every specialty group. These mean scores were added to form total index scores (ICI, ACI, and PCI) in each specialty group and comparisons were made among intra attribute means and total index scores across 4 categories of residents. Specialty group differences were statistically assessed through analysis of variance (ANOVA) at 5% significance.

**Results**

**Demographic characteristics**

A total of 341 (225 males) resident doctors out of 455 contacted consented to participate in the survey [Table 1]. The majority of resident doctors belonged to the surgical group (42.23%). The mean number of dependents was more among multidisciplinary group residents (1.54, SD = 1.79). The average duration between graduation and start of residency training was largest for internal medicine residents (4.30 years, SD = 4.69) and least in surgical group (2.54 years, SD = 2.44).

**Communication index scores**

Resident doctors gave scores to 10 patient related [Table 2-3] and 5 professional communications attributes according to their perceptions [Table 4]. Table 2 shows that total informative communication index (ICI) is lowest for multi-disciplinary group (12.05, SD = 4.87) and highest for surgical (15.27, SD = 2.51) residents. Multi-disciplinary group had lowest scores for all the attributes of communicating information to patients. Surgical residents had relatively lower scores for using the layman language to patients (2.91, SD = 0.96). Medical group had lower scores in verbal response to patient queries (2.87, SD = 1.07) from amongst the 5 attributes. Specialty group differences were statistically significant for all five attributes as well as for total ICI scores.

Total affective communication index (ACI) scores were lowest for multi-disciplinary group and highest for medical group [Table 3]. Specialist group residents gave lowest scores to exploring patients’ support system from amongst the 5 attributes (2.77, SD = 0.87). Surgical residents had highest mean scores for maintaining eye contact to patients (3.24, SD = 0.80) and responding to patient’s emotions (3.15, SD = 0.90). Residents from four groups had significant differences on all five attributes of affective indices as assessed by ANOVA.

Professional communication index (PCI) shows that all four groups had almost equally low scores in professional interaction abilities as compared to ICI and ACI [Table 4]. The lowest total PCI was obtained for surgical residents (7.11, SD = 2.98). Surgical residents had felt linguistic barriers when interacting with seniors (1.22, SD = 1.07) along with the specialist group (1.22, SD = 1.17). Residents from multi-disciplinary group perceived that they were least comfortable with
suggestions accepted by seniors as indicated by their scores (2.08, SD = 1.00). Surgical residents perceived less ability (1.63, SD = 1.18) whereas medical group perceived that they had more ability (1.70, SD = 1.11) to persuade colleagues to perform their duties. The group differences were not statistically significant for either the five professional attributes separately or for the total PCI ($P = 0.37$).

### Discussion

World over, communication skills are being considered as one of the vital skills required in medical practice[20,21] and are recognized as a core competency of undergraduate and post-graduate medical education programs in developed countries.[22,23] These initiatives led to the revision of medical curriculum, and greater emphasis is now given to develop means of teaching, training, and assessing communication skills in postgraduate medical training as well.[24,25] This study has highlighted some attributes of communication skills that are often not emphasized by medical community in our set up. The results of this survey have also evaluated communication skills from residents’ perspectives in different specialty groups by attending to its important contents in our postgraduate medical culture.

Communicating information to patients about their illness forms the basis of an effective interaction between a doctor and patient, hence improvement in human interaction can have positive effects on health outcomes.[20] For an effective doctor-patient encounter, one needs to be confident that adequate information is retrieved from the patient by address-
ing their key concerns, form an opinion and then provide this understanding directly to the patient about his or her illness. We explored residents’ perception of their communication capability with patients through ICI [Table 2] and found that mean scores for some of the attributes were relatively higher in this index compared to other indices. These high scores give some credence to recognition by residents of the importance of gathering and delivering information to patients since it helps the residents to make a differential diagnosis or classify nature of the clinical problem. The evaluation through ICI scores can offer pragmatic suggestions to help residency groups with relatively low ICI scores to establish a systematic framework for training their residents through educational tools such as self-assessment by videos or by workshops and courses.¹⁶⁻²⁸

Affective communication index (ACI) explored behavioural issues of patients that are fundamental to effective doctor-patient communication since this improves attitudes and beliefs of doctors towards psychosocial problems of patients.¹⁹ The results of our study suggest that residents gave high scores to some attributes that involve an understanding of mental status and support system of patients, combined with capability to communicate this understanding to patient [Table 3]. Active listening and maintaining eye contact are attributes that let the patient know that resident doctors are interested in their problems, and scores in this index for some specialties (medical and surgical) imply that they pay relatively more attention to them during communication exchange. Hojat et al. have also shown that active listening and responding to patient’s concerns are essential components of encouraging information sharing for effective patient-doctor communication.¹⁰ Understanding the psychosocial status of patients is vital since this can lead to establishment of a framework for assessing, advising and assisting patients on their personal problems.²⁰ In addition body and mind response to treatment for a physical ailment is dependent upon the psychological well-being. To have successful communication, residents need to be sure that psychosocial issues are specifically sought through these contextual attributes to gain an understanding of patient’s personal issues.

Poor communication and working relationship of residents with their seniors and peers can negatively affect their learning and academic environment.¹¹ Conflict can also arise from these communication difficulties due to differences in status and roles.¹² Low PCI scores [Table 4] given by residents according to their perceptions suggest relative shortcoming for their professional communication, and the difference between residency groups for individual attributes as well as total PCI was not significant (P = 0.37). These scores are a reflection of our cultural context of residency training where at times questioning or challenging the authority are not the norms. Not having cohesiveness with the seniors therefore promotes uneasiness while questioning, creates language barriers, fear of giving wrong answers, silence, and detachment, the ingredients that do not enhance residents skills in communication. Therefore residents need to be immersed in a culture that supports professional interaction, where intra personal relations are respectful and where positive reinforcement from seniors is the norm. Further research is needed to explore possible differences of these professional communication attributes within groups and try to identify the gap that might exist between what the residents are expected to learn and what they actually experience during their interaction with seniors and colleagues over the course of their residency training.

Since our study relies on self-reporting by the resident doctors and as the indicators of their communication skills with patients and professional colleagues were assessed through responses based on 0 to 4 Likert scales, this may not correspond to their performance in actual clinical and collegial settings. The study also could not include reporting from attendants and patients themselves, which might have strengthened the results and reflected their actual behaviour. We did not analyze resident doctors according to the years of postgraduate training that could have indicated if resident doctors acquire greater skills during their training.

Improving communication skills for residents is a challenge for all residency programs in the country. Addressing this improvement can have many beneficial effects including improved patient outcomes and high level of confidence that residents can acquire as good physicians and surgeons. Residency programs must establish goals and outcomes to incorporate communication skills in postgraduate medical training since this can enhance residents’ performance as effective health care providers. Residents are evaluated on these skills in most postgraduate programs and therefore it is important for the senior faculty to establish themselves as good role models, be more interactive around them, and share experiences with both residents and junior faculty. It is also important that the senior faculty members of individual programs develop a supportive relationship with residents in order to enhance their academic activities. This would enable residency program directors to address inadequacies and develop infrastructure appropriate to primary purpose of residents’ training. Accomplishment of better communication skills can be achieved, if the importance of its teaching and training to residents is valued by residency program co-ordinators, and infrastructure is provided to foster an understanding of the patient’s needs and social environment directly into patient care.

References

Appendix

Communication skills questionnaire

Communication skills-patients (informative)

1. Do you try to find out patients prior knowledge of disease before giving him the diagnosis
2. Do you use layman language
3. Do you only tell the truth
4. Do you discuss both short & long term treatment plans with your patients
5. Do you answer to patient questions/queries directly

Communication skills-patients (affective)

6. Do you try to find out the patient mental state before giving him the diagnosis
7. Do you explore the patient support system
8. Do you listen till patient satisfaction
9. Do you maintain eye contact / have attentive pose
10. Do you respond to patient’s emotion verbally / non verbally

Communication skills-professional

11. Do you feel comfortable, asking questions during ward rounds
12. Do you try to overcome linguistic barrier while talking to seniors
13. Do you think that your suggestions are not accepted by your seniors
14. Do you try to participate in clinical presentations
15. When the time comes, do you persuade your colleagues to perform their duties

Expert’s Comments

A call to engagement

Effective communication is essential to quality medicine and therefore receives considerable research attention in the developed world. Studies have detailed four common, important dimensions of medical communication: clarity of information provided to the patient, mutual goals, an active patient role, and a warm, supportive, empathetic physician. [1]
Yet, little is known about medical communication in developing countries. This issue of the Journal includes a study that addresses this void. Avan et al have surveyed the perceptions of Pakistani resident physicians regarding their performance of key medical communication tasks. A study of perceptions reveals little about the residents’ actual competence to perform the tasks surveyed. It does, however, provide valuable insights into the residents’ confidence in their communication skills.

Understandably, residents from the multidisciplinary cohort—anesthesiology, radiology, and pathology—scored lower than residents in other cohorts on the informative and affective communication tasks surveyed. These specialties entail less direct, prolonged patient contact and require less need to understand the psychosocial status of patients. Abbreviated patient contact plausibly hinders communication skills development. Residents selecting these specialties may also be less interested in or comfortable with these communication domains.

The most interesting finding involved the residents’ confidence in communicating with professional colleagues. All resident cohorts reported strikingly lower scores on this scale. Three of four study cohorts gave professional communication approximately half their average ratings for the other communication domains. The residents perceived barriers to asking questions, establishing dialogue with seniors, offering suggestions, participating in clinical presentations, and encouraging colleagues’ conscientious performance. The authors attribute these results to the cultural context of the residencies surveyed. Still, what are the implications for training when residents are less confident about relating to colleagues than patients?

A learning environment that discourages communication promotes a considerably more passive resident role than is typical in developed countries. Optimal communications training involves personal attention, delineation and definition of necessary skills, and repeated observation with feedback and discussion. As residents’ clinical personalities emerge during training, they are particularly open to acquiring effective communication skills. But they must be guided through the process, engaged in dialogue with seniors and peers to explore, in an environment where they are not defending themselves from critique, the struggles that regularly challenge the very nature of their work. Avan and associates provide evidence that Pakistani residencies have yet to develop these characteristics. As such, their study may say less about the residents surveyed than the training programs educating them.

**References**


**Expert’s Comments**

**Communication skills and postgraduate medical training programs**

It is now widely acknowledged that doctors require good communication skills to be able to deliver appropriate, high-quality medical care. Research has helped to elucidate some aspects of this complex topic. We know, for example, that some doctors in training possess better communication skills than others and that shortcomings are commonplace. Furthermore, we know that although the impact of initial medical posts affects different doctors in dissimilar ways, clinical experience alone does not address deficiencies. Thankfully, training programs that utilise appropriate teaching methods do result in lasting, significant improvements in the communication skills of both relatively junior and senior doctors. However, almost all published research has been conducted in the USA, Canada and Western Europe. It would be unwise to assume that results generalise across different cultures. They may not. For example, it may be the case that patients in different parts of the world have distinct expectations and desires about how they would like their doctors to communicate. Similarly, depending on their location, young doctors may face substantial yet diverse barriers to developing their communication skills. Consequently, the authors’ contribution to the literature is most welcome.

There are two aspects of this paper that are especially noteworthy. First, the extent to which residents believe they possess relevant attributes is worthy of study, although under-researched. In view of the continuing drive toward self-directed learning, accurate self-reflection is essential if doctors are to
address shortcomings. Unfortunately, doctors and other health professionals are poor at judging their own communication skills. Nevertheless, although perhaps erroneous, self-perceptions might be extremely influential in doctors’ decisions about whether or not to seek communication skills training. A coherent, structured, ongoing communication skills training program, as suggested by the authors, might help overcome this problem. Second, the uniformly low ratings of residents regarding their ability to communicate with their senior colleagues, is worrying. In other research, doctors have indicated they are more influenced by the way senior colleagues communicate in hospitals than by formal communication skills teaching delivered in the classroom. Moreover, residents have revealed that a lack of support from senior medical colleagues to be a significant barrier to delivery of effective communication to patients. Clearly, senior doctors play a crucial role in the education of residents. This article suggests that improvements in communication across medical grades would be helpful in many ways. If this does not occur, then the effectiveness of the authors’ recommendations on the provision of communication skills training could be seriously compromised.

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References

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