An assessment of communication skills of the MD/MS students of Institute of Medicine in Nepal

Correspondence to:

1) Prof. J.P. Agrawal, Principal Investigator, National Centre for Health Professions Education, TU, IoM, Maharajgunj, Kathmandu, Nepal, Tel: 977-1-4416734
Email Adress: jpagrawal@healthnet.org.np, directormed@iomdit.org.np, Home Page: www.nchped.org.np

2) Associate Professor, Ms. Mandira Shahi, Co-investigator, National Centre for Health Professions Education, TU, IoM, Maharajgunj, Kathmandu, Nepal, Tel: 977-1-4416734,
Email Address: mandiranp@yahoo.com, Home Page: www.nchped.org.np

 Abstract

Introduction: Communication skills are important qualities in the behaviour of doctor in all aspect of health care. The main objective of this study was to assess the level of interpersonal communication skills of MD/MS resident doctors and to provide recommendations for the future.

Methods: Descriptive, cross sectional, qualitative and quantitative research design was used. 7- point Likert scale (0 to 6) MAAS-Global scoring instrument was used. The subjects of the research were the MD/MS residents from various departments of Maharajgunj Medical Campus (MMC) of Institute of Medicine, Maharajgunj, Kathmandu. Out of 162 MD/MS residents, only 30 (18.5%) MD/MS residents were selected for the sample size for the study from 1st, 2nd and 3rd year. One MD/MS resident was required to conduct four interviews with patients coming to the out patient department. All the interviews were video-recorded.

Results: There was high degree of positive correlation between Information sharing and Management (r=0.746) whereas weak negative correlation on clarification and diagnosis (r=-0.011). Inter rater correlation was established before hand and was satisfactory (p < 0.05).

Conclusions: This base line study of MD/MS residents shows that over all MD/MS residents are deficient in almost all the components of interpersonal communication skills. A communication skills training course in postgraduate medical education could improve the existing communication skills of the doctors in Nepal.

Key Words: MD (Doctor of Medicine), MS (Master of General Surgery), Communication skills

Introduction

Interpersonal communication skills are important qualities in the behaviour of a doctor. The term interpersonal skills must be distinguished from medical interviewing skills. The latter refers to the traditional medical interview, including the gathering of medical data related to various illnesses. Instructions in this area usually lean heavily on the review of systems and other points of questioning common to medical school courses. However, effective medical interviewing clearly involves more than gathering medical information through interrogation. Interpersonal skill comprises the physician's ability to communicate effectively with others. The flow of useful patient's information is often facilitated by the physician who can listen effectively, who can show concern and warmth and who is able to deal with the emotional issues presented by a person in distress. The physician's interpersonal skills enable him not only to obtain data essential to proper diagnosis and treatment but also to create a positive, reciprocal doctor-patient relationship.

For instance, there are three types of communications skills that can fit into the curricular objectives: Content skills, Process skills and Perceptual skills. Content skills refer to the substance of the questions and response, the information to be gathered and given and also the treatment to be discussed. Process skills are based on the way the professional communicates with the patients[1].

In a review of the current literature, the communication process into six broad categories: 1. Information giving - which implies the sharing of any material which might bring a further understanding or knowledge (gives information, verbal explanation, gives information and orientation, explains, answers patient questions, condition, nature of illness, lifestyle, health promotion etc), 2. Information seeking- includes all requests for information, clarification, or further understanding (asks for information or instructions, takes history, asks open and closed questions, non-directive history taking), 3. Social conversation - includes varieties of non-medical and social conversation (greeting, social conversation, personal remarks, discusses social/family matters), 4. Positive talk - includes all exchanges with a positive effective tone or intent (agrees, shows approval, laughs, gives reassurance, encourages, shows empathy), 5. Negative talk - includes all exchanges with a negative affective tone or intent (disagrees, confronts, shows antagonism)[2].

The program for MD in various specialties was started in 1994[3]. It was three year course under the supervision of postgraduate medical education coordination committee formed by Tribhuvan University, IoM and Bir Hospital, Kathmandu. For this, valley group of hospitals were involved.

Presently there are 17 medical schools, out of which 4 are government controlled, the Institute of Medicine being the pioneer on, many of the run Post Graduate programs. Methods of instructions are traditional in almost all the curriculum of different medical schools. None of them have specific communication skills training programs in their curriculum except the MBBS curriculum of Institute of medicine which incorporated communication skills program in the curriculum in 2008[3].

MD/MS residents are exposed to various aspects of skills such as; interviewing skills, case presentation, counselling skill, writing and general presentation skills. There is no separate training for communication skills.

No research has so far been carried out in Nepal to observe the level of communication skills of Post Graduate doctors. Awareness among medical educators of the value of effective communication skills for physicians has led to the expansion of the medical school curriculum to include the courses in communication skills in different part of the world[4]. Different healthcare organizations have also recommended that communication skills training should be an integral part of any medical curriculum[5, 6, 7].

In view of more and more medical schools coming up, each of these without communication skills training component in the curriculum, it becomes more important to make them aware of the importance of the interpersonal communication skills of their graduates and post graduates.
Before implementing such a course it was important to carry out a base line survey of the P.G. resident doctors to assess the extent to which these doctors display interpersonal communication skills during medical encounters. Hence the study was designed.

The objective of the study was to carry out the study on interpersonal communication skills of MD/MS residents.

The hypothesis of the research is that MD/MS residents are deficient in basic interpersonal communication skills particularly in exploring the patient's psychological concerns, providing empathy, disclosing patient's personal issues. The hypothesis was tested in order to assess the level of interpersonal communication skills and to detect the deficiencies in basic communication skills of MD residents.

The research questions addressed in the study were to know:

1. What is the actual level of interpersonal communication skills of the MD/MS residents at the MMC, Institute of Medicine, Tribhuvan University, Kathmandu Nepal?

2. Are they deficient in basic communication skills like exploring patients' psychological concerns, providing empathy, disclosing patients' personal issues in comparison to other available data with the MAAS-Global?

Methods

Descriptive, cross sectional study design was adopted for this study. Qualitative and quantitative research design was used to collect information about commutation Skills. The population of this research were the MD/MS residents from various departments of Maharjganj Medical Campus Tribhuvan University Teaching Hospital, Institute of Medicine. Out of 162 MD/MS residents, only 30 (18.5%) MD/MS residents were selected for the sample size for the study. One MD/MS resident was required to conduct four interviewers with patients coming to the out-patient department. All the interviewers were video-recorded. Total 120 video clips were collected from the OPD patients. Among them 29 video clips were not completely rated. Therefore the research is based on only on 91 video clips. Clinical Departments selected for this study were Psychiatry, Dermatology, Internal Medicine, General Practice, Ophthalmology, General Surgery, ENT, Paediatric, and Orthopedic. Residents' profiles were obtained from the administrative office of the Maharjgunj Medical Campus of Institute of Medicine, Maharjgunj, and Kathmandu. Stratified random sampling was used in order to include equal number of MD/MS residents in First, Second and Third year of their residencies. The interviews were scored using the rating scale. In our study we used the MAAS-Global scoring list (van Dalen, et. al., 1998), instrument used in Maastricht University, School of Medicine, Maastricht, The Netherlands to provide feedback on the students' communication skills. This instrument lists thirteen independent items with a 7- point Likert scale (0 to 6). Two types of items could be distinguished in this instrument: items referring to communication skills needed in certain phases of the consultation and the items about the communicative behavior needed in the entire consultation. The focus of the instrument was on the process of consultation, rather than on the content i.e. how the questions were phrased rather than what was asked. The aim of our study was to assess the process of communication skills rather than the content of the interview. The instrument was discussed with the senior faculty members of the Institute of Medicine regarding applicability on our MD/MS residents and there was a full agreement on its acceptance in total. Two academic staffs were selected with background of medicine and paediatrics as the evaluators (raters) of the interviews. Both were given the formal training regarding evaluation and MAAS-Global Manual was used as the guide for them. Twelve video clips were recorded of the 3 (10%) MD/MS residents who were not involved in the study. Six of the interviews were scored independently by both raters. The inter-rater correlation was analyzed which was not satisfactory. Hence, they were again asked for their comments on discrepancies and were retrained to reach agreement about how to interpret the criteria. They were given the remaining six interviews for rating. The inter-rater reliability coefficient, cronbachs alpha was calculated and found to be satisfactory (> 0.8) and statistically significant (p < 0.05).

The validity of the research instrument was established by using MAAS-Global scoring list (van Dalen, et. al., 1998), instrument used in Maastricht University. The reliability and validity of the instrument was established by van Thiel, et. al., 1992 and van Dalen, et. al., 1998.

Each MD/MS resident was required to conduct four interviews, each lasting for maximum 20 minutes, with patients coming to their respective OPD. Arrangements and appointments were made in such a way that each MD/MS resident interviewed four patients with different symptoms (two cases on day one and remaining two cases on day two and likewise). The patients were randomly picked up from the outpatient by the supporting staff and were sent for interviews by the pre arranged MD/MS resident. All the interviews were video-recorded from the month of August-October, 2009 by the professional videographer.

Ethical clearance from Research Committee, Institute of Medicine was obtained. Permission from the Executive Director, T.U. Teaching Hospital and Heads of the departments were obtained. MD/MS residents were briefed about the research in a meeting prior to their selection. The content of the research was not disclosed in order to prevent the bias. They all agreed to participate and written consent was obtained from them prior to the interviews. Patients were also explained about the purpose of the research before they were subjected for video recorded interviews. A written consent was obtained prior to their consultation.

The interviews were conducted in out-patient consultation setting of T.U. Teaching Hospital, Kathmandu, where the consultation room at the corner was selected for effective recording without noise and other interference. Video was placed in such a way that patient or MD/MS residents did not visualize it during interview to minimize the detraction during interview.

Two trained faculty members scored the video recorded interviews independently using the MAAS-Global scoring list.

Results

Out of 30 MD/MS residents, majority 28 (93%) were male whereas 2 (7%) were female. All the respondents' background was MBBS with experience and without experiences.50% of MD/MS residents were from Central Development Region. 60% of MD/MS residents belonged to age group 25-30 years.

Table 1. Demographic profile of the population (n=30)

Variable	Number	Percent
Gender: Male Female	28 2	93.3 6.7
Age: 25-30 31-35	18 12	60 40
Region: Far Western Region	1	3.3
Mid Western Region	2	6.7
Central Region	15	50
Western Region	8	26.7
Eastern Region	4	13.3
Total	30	100%

There is high degree of positive correlation between Information sharing and Management (r =0.746) whereas weak negative correlation on clarification and diagnosis (r = -0.011).

Table 2. Inter rater correlation matrix

Inter-Item Correlation Matrix												
Content	1	2	3	4	5	6	7	8	9	10	11	12
Introduction -1	1.000	.444	.213	.096	.036	.303	.254	.192	.032	.219	.166	.019
Clarification-2	.444	1.000	.312	-.011	.174	.350	.462	.308	.170	.439	.171	.275

	1	2	3	4	5	6	7	8	9	10	11	12
Physical Examination-3	.213	.312	1.000	.307	.230	.353	.272	.295	.348	.361	.526	.323
Diagnosis-4	.096	-.011	.307	1.000	.677	.413	.339	.127	.760	.244	.458	.492
Management-5	.036	.174	.230	.677	1.000	.561	.482	.134	.746	.335	.311	.482
Evaluation of consultation-6	.303	.350	.353	.413	.561	1.000	.629	.361	.533	.591	.294	.444
Exploration-7	.254	.462	.272	.339	.482	.629	1.000	.441	.372	.498	.226	.546
Emotions-8	.192	.308	.295	.127	.134	.361	.441	1.000	.176	.334	.286	.319
Information sharing-9	.032	.170	.348	.760	.746	.533	.372	.176	1.000	.324	.457	.527
Summarization-10	.219	.439	.361	.244	.335	.591	.498	.334	.324	1.000	.281	.435
Ordering-11	.166	.171	.526	.458	.311	.294	.226	.286	.457	.281	1.000	.462
Flexibility-12	.019	.275	.323	.492	.482	.444	.546	.319	.527	.435	.462	1.000

Note: 1=Introduction, 2= Clarification, 3=Physical Examination, 4=Diagnosis, 5=Management, 6= Evaluation of consultation, 7= Exploration, 8=Emotions, 9=Information sharing 10=Summarizations (including repetitions), 11= Ordering, 12= Flexibility

In general, the quality of communication in every phase of medical encounter is not same. Among twelve items 25% of the items (Evaluation of consultation, Exploration, Emotion) were in unsatisfactory level, 41.6% of the items (Introduction, Clarification, Physical Examination, Information sharing, Summarization) are in doubtful level and remaining 33.33% of the items (Diagnosis, Management, Ordering and Flexibility) are near to Satisfactory level. The overall study shows that our MD/MS residents are still not able to reach to the satisfactory level which is the evidence for our hypothesis.

Table 3. Mean Score for communication skills for each separate content

n= 91

Content	Mean	Std. Deviation
Introduction	2.7967	.79923
Clarification	2.6044	.92951
Physical Examination	3.1154	.84023
Diagnosis	3.6044	1.11683
Management	3.5549	.95873
Evaluation of consultation	2.2363	.94675
Exploration	2.2527	.81777
Emotions	1.5110	.57724
Information sharing	3.4396	.93641
Summarizations (including repetitions)	2.4505	.92513

Ordering	3.4670	.82597
Flexibility	3.9560	.87765

Note: Score based on seven point Likert Scale: 0=not present, 1= poor, 2=unsatisfactory, 3=doubtful, 4=satisfactory, 5=good, 6=excellent, N.A=Not Applicable

The value of Cronbach's Alpha = 0.864 (>0.8), there is good internal consistency between the scores given by Rater A and Rater B.

Table 4. Reliability Statistics

Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.864	.863	12

Discussion

In our study, the overall performance of the MD/MS residents (who represents the whole of the MD/MS population statistically) in communication skills the medical interview with the patients was not satisfactory.

There are few comparable studies with MAAS-Global instrument. A lower mean percentage score had been found in both groups of family physicians. This was a performance study[8]. In Swiss internal medicine resident study, the scores in both groups of residents at the beginning of the study are comparable with our results. However, this study could be considered to be assessing the competence of the residents[9]. In 5th year student's study, both the Maastricht students and the Leiden students had significantly higher score than our study[10].

When analysis was done item wise, MD/MS residents had a maximum mean score of 3.95 for flexibility which was more than the study[11], which includes empathy, attentiveness, gesture, eye contact, time allotment to patient and disturbing hesitations or interruptions. In this item though scoring was near to satisfactory stage, it was par with some of the other studies[12] where students in the beginning of the year had a mean score of 3.79. In the study done in the UAE it was found that only 19% of the students failed to maintain appropriate eye-contract[13,14,15].

For introduction, which included the general orientation on the reason of visit and asking about other reason for visits, our MD/MS residents mean score was 2.79 which is better than unsatisfactory and close to doubtful. The score is less than some of the other studies[12, 16, 11].

The item clarification had a low mean score of 2.60 which is better than the study[11] which reflects that our MD/MS residents were in the stage of threshold between unsatisfactory and doubtful in naming request for help, wishes or expectations of the patients, naming reasons that promoted the patients to attend them.

Similarly, the item on emotion, which was concerned with asking about or exploring feelings, reflecting feelings back, had a very low score of 1.51 which is better than the study[11], which reflects non-existence to poor competency. At the beginning of the 3rd year students had a low score on the emotional aspect, which improved at the end of the year[12].

For summarization, our MD/MS residents had a mean score of 2.45, which reflects that their skill of summarization is unsatisfactory. The score is better than the study done in intern doctor[11]. Similar findings are also observed[11] with a slightly higher mean score in undergraduate students.

For physical examination, which includes the skills of instruction to the patients regarding examination, explanation of what is being done and care and respect to the patient, they had a mean score of 3.11. The score is better than the study[11], which is par with the study[12].

Similarly, for diagnosis and management they had a mean score of 3.60 and 3.55 respectively, better than the study[11] which is similar to the study[12].

For overall evaluation of the consultation they had a mean score of 2.23 which is less than the study[11] which falls in unsatisfactory category. These findings are also consistent with the findings[17].

On the items on exploration, information sharing and ordering of the interview our MD/MS residents had a mean score of 2.25 less than the study[11], 3.43 less than the study[11] and 3.46 more than the study[11] which are par with some of the other studies mentioned earlier[17, 12].

In general, the quality of communication in every phase of medical encounter is not the same. Among twelve items 25% of the items (Evaluation of consultation, Exploration, Emotion) were in unsatisfactory level, 41.6% of the items (Introduction, Clarification, Physical Examination, Information sharing, Summarization) were in doubtful level and remaining 33.33% of the items (Diagnosis, Management, Ordering and Flexibility) are near to Satisfactory level. The overall study shows that our MD/MS residents are still not able to reach the satisfactory level which is the evidence for our hypothesis.

There could be numerous factors influencing the scores. In most of the studies there is some component of communication skills training while our MD/MS residents had no formal communication skills training. That could be the reason that they scored very low on each items. There could be cultural influence too. Very low score on the variable emotion could be due to cultural differences: Nepalese people may not like to discuss the emotions with the doctors or they may think it improper to discuss. Hence, the doctor too might not have paid much attention to it. On the other hand there might not have been enough opportunity for our MD/MS residents to address emotions.

The studies mentioned above having the higher scores are mainly assessing the competence while our study was an assessment of performance and that could also be the reason for having lower scores.

Conclusion

This base line study of the interpersonal communication skills of MD/MS residents at Institute of Medicine, Kathmandu, shows that over all MD/MS residents are deficient in almost all the items mentioned. In some of the interpersonal communication item like Evaluation of consultation, exploration and emotions were unsatisfactory. On item introduction, clarification, physical examination, information sharing, and summarization MD/MS residents were in doubtful level. On item Diagnosis, Management, Ordering and flexibility MD/MS residents were near to satisfactory level. The reason for this may be that they were trained in traditional way of encounter with the patients. The curriculum does not include any training on specialized communication skills. Whatever communication skills they had they learned through clerkship during clinical postings.

Recommendation

During the last few decades there has been a general increase in awareness of the need for more patient-physician communication. Communication improves when the doctor actively tries to understand the patient's perspective, and when the doctor is able to show his understanding with the patients[18]. This recognition has led to a growth in the systematic teaching of communication skills within the medical curriculum widely. There is overwhelming evidence of positive effect of communication skills training as mentioned in review of literature. As mentioned earlier in introduction, a specialized program of training in communication skills is not included in the curricula of most of the medical schools in Nepal including various curricula belonging to Institute of Medicine, a pioneer institute in the country. However it's a welcoming step that the recent (2009) revision MBBS curriculum has included a module on communication skills[19]. This study also suggests that it is the high time that all the postgraduate medical curricula in Nepal should also include the training in communication skills. A communication skills training course in postgraduate medical education could improve the existing situation in Nepal.

Acknowledgement

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